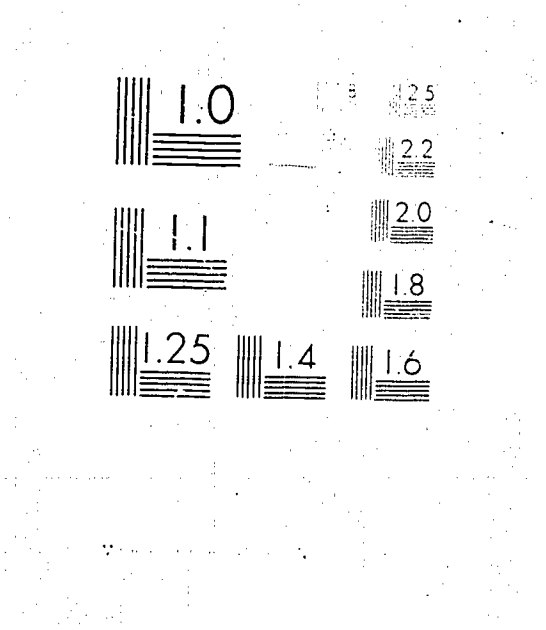

1.0
2.2
1.1
2.0
1.8
1.25
1.4
1.6

DOCUMENT RESUME

ED 133 940 EC 092 727

AUTHOR Phelps, L. Allen
TITLE Instructional Development for Special Needs Learners: An Inservice Resource Guide.
INSTITUTION Illinois Univ., Urbana. Dept. of Vocational and Technical Education.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.
PUB DATE 77
GRANT OEG-00-750-0386
NOTE 334p.

EDRS PRICE MF-$0.83 HC-$18.07 Plus Postage.
DESCRIPTORS Case Studies; Educational Planning; Exceptional Child Education; Guidelines; *Handicapped Children; Individualized Instruction; *Individualized Programs; Inservice Programs; Instructional Materials; *Instructional Programs; Occupational Choice; *Program Development; *Resource Guides; Secondary Education; Special Education; Student Evaluation; Task Performance; *Vocational Education; Work Study Programs

ABSTRACT

Designed for use by teachers, coordinators, and consultants from occupational education and special education programs, the inservice resource guide presents a system for developing and managing instruction for secondary level special needs learners (students traditionally identified as handicapped or disadvantaged). Included are seven modules, each focusing upon one function in the development of instructional programs, and each including the following: (1) an introductory statement, (2) case studies describing special needs students and their teachers, (3) module goals statements, and (4) a description of the inservice experiences included in the module. Procedures for completing each inservice experience, resource materials, instructional planning forms, and completed example forms are provided for each of the 16 inservice experiences within the modules, as well as a self-evaluation checklist and resource bibliography for each module. Module topics are the following (inservice experiences are in parentheses): (1) learner identification and analysis (collecting learner identification information, developing a learner analysis profile, and developing a learning prescription), (2) cooperative instructional arrangements (developing a cooperative instructional arrangement), (3) instructional resources (developing a special needs resource inventory and establishing and/or using a special needs advisory committee), (4) cluster and content analysis (identifying career clusters and conducting a career cluster analysis), (5) instructional planning (developing instructional modules/units and sequencing instruction), (6) instructional implementation (analyzing instructional materials, providing reinforcement and feedback, modifying the learning environment, and planning and coordinating work experience programs), and (7) evaluation of learner progress (developing a learner performance profile and conducting a learner followup survey). (IM)

Instructional Development for Special Needs Learners: an inservice resource guide

L. ALLEN PHELPS

Department of Vocational and Technical Education
University of Illinois at Urbana-Champaign
Urbana, Illinois 61801

The development and formative evaluation the product presented herein was supported in part by Grant No. OEG-00-750-0386 from the Bureau of Occupational and Adult Education, Office of Education, U.S. Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy and no official endorsement by the U.S. Office of Education should be inferred.

3/4/5

P R E F A C E

This resource guide contains a series of seven modules designed to acquaint occupational and special educators with a systematic process for developing instruction for special needs learners. The modules are designed to be used in an inservice setting. They are intended to help practicing teachers, consultants, and work coordinators plan, implement, and evaluate individualized educational programs for special needs learners.

The instructional development model presented in these modules is directed at special needs students who are enrolled in occupational programs at the secondary school level. Most of the suggestions and example materials are focused on students with mild or moderate learning, physical, or behavioral problems.

The modules may be used individually or collectively in both individual or small group inservice activities. The concepts, procedures, and suggested resource materials enable the user(s) to design and develop a comprehensive instructional program. The products which are developed in each module represent one component of an individual educational program for a special needs learner.

ACKNOWLEDGEMENTS

The development, formative evaluation, and revision of these materials has resulted from the efforts and contributions of several individuals. Thirty-two teachers, counselors, and coordinators from the Decatur Public Schools and Champaign Community Schools participated in the field testing by utilizing the modules with special needs learners enrolled in their class during the Fall Semester, 1975. A panel of experts composed of teacher educators, secondary school personnel, local program directors, and state department of education personnel from several different states assisted in identification of the competencies and reviewed the field test versions of the modules.

FIELD TEST PARTICIPANTS

Champaign Community Schools

Centennial High School

Sandy Carleton, EMH Teacher
George Hast, Prevocational Coordinator
Fran Johnson, Coordinator

Central High School

Ellen Cook, EMH Teacher
Rufus Morris, EMH Teacher
Claude Murphy, Coordinator

Edison Junior High School

Elizabeth Galli, Resource Teacher
Kay Lemons, Home Economics
William Phillips, Industrial Education
Bob Schuster, Physical Education

Decatur Charter District #61

Area Vocational Center

Carl Christensen, Small Engines
Doris Hudson, Office Practice
Bill Matheny, Electronics
Joe McFarland, Building Trades
Ralph Peterson, Commercial Printing
Jim Pippin, Cabinetmaking

Lakeview High School

Bill Curtis, Coordinator
Lane Eichhorn, Industrial Arts
Marilyn Fleener, Home Economics
Ray Maddox, Industrial Arts
Ed Meyer, Coordinator

MacArthur High School

Dick Fearheiley, Coordinator
Karen Lawrence, Coordinator
Janet Mockaitis, C.W.T. Coordinator

Eisenhower High School

Wilford Hudson, Coordinator
Fred Drueger, Coordinator
Larry Ryterski, Drafting
Don Schwalbe, Business Education

Jefferson Middle School

Larry Fulton, Industrial Arts
Helen McMullen, Home Economics

Woodrow Wilson Middle School

Linda Powell, Learning Disabilities

EXPERT REVIEW PANEL

Teacher Educators

Dr. Frank Bobbitt, Professor
Vocational Education
Michigan State University
East Lansing, Michigan 48824

Dr. Al Lampe, Assistant Professor
Department of Vocational Education
and Technology
University of Vermont
Burlington, Vermont 05401

Dr. Ronald Lutz, Associate Professor
Industrial Education and Technology
Central Michigan University
Mt. Pleasant, Michigan 48859

Dr. Donn Brolin, Director
Project PRICE
University of Missouri
Columbia, Missouri 65201

Dr. Donald Burke, Professor
Department of Special Education
Michigan State University
East Lansing, Michigan 48823

Dr. Gary M. Clark
Professor of Special Education
University of Kansas
Lawrence, Kansas 66045

Secondary School Personnel

Ms. Cherie Dishaw
Office Occupations Teacher
Bay-Arenac Skill Center
Bay City, Michigan 48706

Mr. Mike Guza
Building Trades Teacher
S. E. Oakland Vocational Education
Center
Royal Oak, Michigan 48073

Ms. Alice Holub
Health Occupations Teacher-
Coordinator
Calhoun Area Vocational Center
Battle Creed, Michigan

Mr. Don Schultz
Industrial Arts Teacher
Alpena High School
Alphena, Michigan 49707

Mr. Hank Tyszka
Auto Mechanics Teacher
Michigan School for the Blind
Lansing, Michigan 48906

Ms. Kathy Donagrandi
Teacher of the Blind
Livonia Bentley High School
Livonia, Michigan 48154

Mr. Chuck Dunham
Teacher-Counselor
Calhoun Intermediate School District
Marshall, Michigan 49068

Ms. Beverly Kihn
Special Education Teacher
Alpena High School
Alpena, Michigan 49707

Ms. Sue Mynatt
Resource Room Teacher
Hemlock High School
Hemlock, Michigan 48626

Ms. Nancy Rowbothum
Teacher-Counselor
Calhoun Intermediate School
District
Marshall, Michigan 49068

Local Program Directors

Mr. Wayne Booton
Special Needs Coordinator
Calhoun Area Vocational Center
Battle Creek, Michigan 49017

Dr. Guy Jones
Vocational Education Director
Champaign Community Unit District 4
Champaign, Illinois 61820

Mr. Jim Oettel
Vocational Education Director
Decatur School District 61
Decatur, Illinois 62523

Mr. Walt Grant
Assistant Director of Special Education
Decatur School District 61
Decatur, Illinois 62523

Mr. Robert L. Huskey
Assistant Superintendent for Deaf Education
Special School District of St. Louis County, Missouri
Town & Country, Missouri 63131

Dr. John Weaver
Special Education Director
Champaign Community Unit District 4
Champaign, Illinois 61820

State Department of Education Personnel

Mr. Larry Barber, Specialist
Special Needs Programs
Vocational-Technical Education Service
Michigan Department of Education
Lansing, Michigan 48904

Mr. J. C. Barrett, Specialist
Special Programs Unit
Division of Adult, Vocational and Technical Education
Springfield, Illinois 62777

Ms. Rita Kalfas, Specialist
Special Programs Unit
Division of Adult, Vocational and Technical Education
Springfield, Illinois 62777

Ms. Wendy Hayward, Specialist
Department of Exceptional Children
Illinois Office of Education
Springfield, Illinois 62706

Mr. Robert Sepesey
Supervisor, Vocational Rehabilitation
Regional State Office Building
Champaign, Illinois 61820

Mr. Gene Thurber, Specialist
Special Education Services
Michigan Department of Education
Lansing, Michigan 48904

Special thanks is due the consultants who aided in designing and overseeing the formative evaluation of the modules: Professors Rupert N. Evans, M. Stephen Lilly, Lloyd J. Phipps, and Ernest House all of the University of Illinois and Dr. Tim L. Wentling of the University of Minnesota. Drs. Evans and Phipps were also instrumental in the overall management of the project.

Several individuals reviewed early versions of the modules and acted as participant-observers during the field testing. For their helpful comments and observations, appreciation is extended to Ms. Elizabeth Abbas, Mr. Richard Cheaney, Dr. Les Cochran, Ms. Jerilyn Dolan, and Dr. Jacob Stern.

The efforts of Mr. Delmar Burgin of the University of Illinois and Mr. Mario George of the U.S. Office of Education were extremely helpful in the fiscal management of the project.

Finally, for their capable and efficient clerical assistance, thanks is also extended to Shirley Lockard, Jenny Holmberg, and Liz Crouse.

TABLE OF CONTENTS

LIST OF INSTRUCTIONAL PLANNING FORMS

Reproduction Masters

HOW TO USE THIS GUIDE

The purpose of this resource document is to improve instructional programs and services for special needs learners. The concepts, resources, and suggestions presented here are designed to help teachers improve the planning, implementation, and evaluation of individualized educational programs at the secondary level. Although the suggestions and resources are integrated in a series seven sequential modules, it is not mandatory that all modules be used, nor that they be used in their numbered sequence. There are numerous and complex considerations to be made in developing instruction; and because of the vast range of differences in instructional situations and teacher needs, it is anticipated that each reader will find a different way in which to use the information in the Guide.

Individual Use

If you are reviewing or using this resource guide informally, here are a few suggestions that may be helpful in getting started.

1. The following section, AN INSTRUCTIONAL DEVELOPMENT SYSTEM, will give you a graphic and narrative overview of the basic process for instructional development used in this Guide.

2. For more specific information on the Modules, Inservice Experiences and resource materials contained in each module, review the MODULE DESCRIPTIONS in a following section.

3. If you are wondering about who are "special needs learners," a brief description of the concept of special needs and a definition are provided in the section entitled SPECIAL NEEDS LEARNERS.

4. When you are ready to consider using the modules, it will be helpful to complete the SELF-DIRECTED NEEDS ASSESSMENT. This checklist will enable you to identify one or more modules which are particularly appropriate for your situation or needs.

5. If you decide to complete a module or series of modules you will generally find it helpful to work with at least one other person. The guidelines and suggestions in most of the modules call for the cooperation of occupational educators and special educators. If you are an occupational educator, it will be important to get advice, reactions, and assistance from a special educator as you develop a special needs learner's instructional program. If you are a special educator, it will be important to obtain assistance and cooperation from persons in occupational programs to insure that your students will be vocationally prepared.

Small Group/Team Use

During the field testing of these materials, several of the participants worked in small groups. The groups were composed of occupational and special educators working as a team to design an instructional program for an individual learner or a small group of special needs learners. This arrangement provided for a great deal of positive interaction, and resulted in several new and productive experiences for the teachers involved and their special needs learners.

Each Inservice Experience can be completed by either an individual or an instructional team. On several of the instructional planning forms that are to be completed, space is permitted for the names of the cooperating instructional team members who were involved in compiling the information. Module 2 is designed to identify the persons who would be appropriate members of the instructional team.

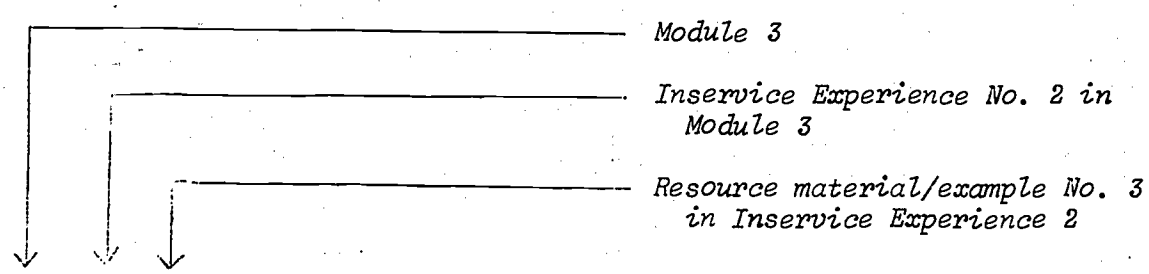
Prior to selecting or initiating any of the modules, the first four steps described above under *Individual Use* should be completed by the team.

Colored Sheets

In each module there are several sheets of yellow paper which present resource materials or example forms. These are designed to supplement the guidelines and suggestions in each Inservice Experience with example documents.

Coding

A multiple digit code is used to identify and organize the modules, inservice experiences, and resource materials. An explanation of the code is provided below:



Instructional Planning Forms

In all but two of the 16 Inservice Experiences there is an instructional planning form to be developed. In Module 1, for example, the second Inservice Experience focuses on Developing a Learner Analysis Profile. A completed example of the profile is included (yellow sheet) in the Inservice Experience. The guidelines and suggestions for the Inservice Experience outline a number of considerations and procedures for developing the profile. A blank copy of the profile form to be used by the inservice participant(s) is included at the end of the Inservice Experience. After completing or compiling the instructional planning form a self-evaluation checklist can be used to obtain feedback.

The modules in this Guide represent the major components of a system for developing and managing instruction for special needs learners. This section briefly explains how the modules "go together" to provide a functional system for developing, implementing, and evaluating instruction and supportive services.

The figure on the following page illustrates the system and identifies each of the modules. Ideally, this system would be used with individual special needs learners because all of the seven components are essential in an effective pro-ram. However, some of the components are less critical for individualization than others. Identifying Instructional Resources *(Module 3)* and the Cluster and Content Analysis *(Module 4)* modules, for instance, are not directly focused on the individual student, but instead on the existing school and community resources and the cluster of occupations being analyzed.

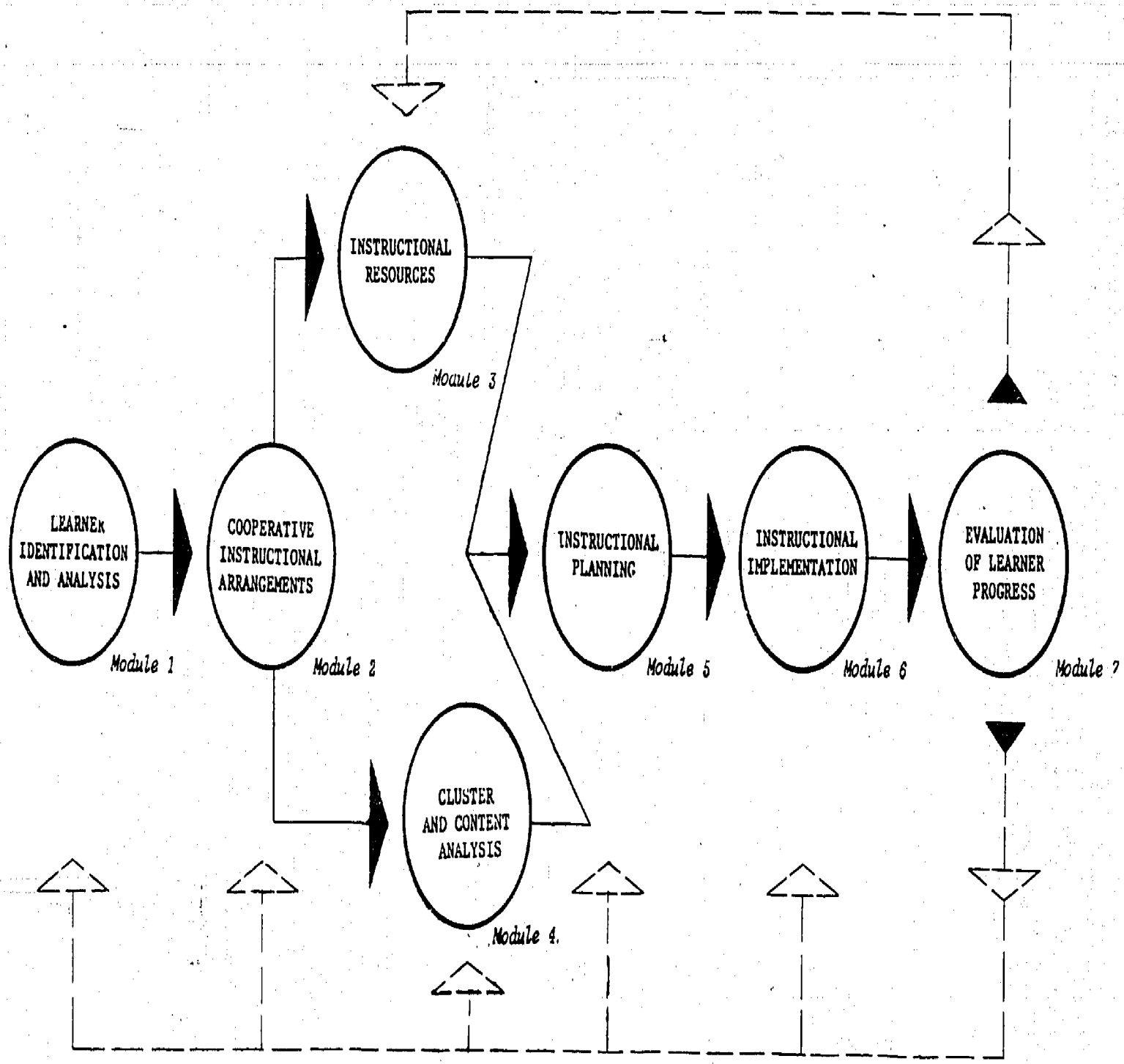
Most teachers and coordinators are already designing and providing instruction in a manner similar to that suggested by the system. The basic functions and ideas suggested by this system are not new to education. They are basic, fundamental components for providing effective educational programs. There are, however, several special features of the system which make it appropriate for special needs learners. The system for developing instruction begins by identifying and analyzing the special educational needs of an individual learner. Once these needs are clearly identified, a cooperative instructional arrangement involving occupational educators, special educators, and other key professionals is organized. This cooperative instructional team then addresses the identified educational needs. In the later stages of the system, following the collection of information

on resources which are available and the competencies required in the world of work, an individual program is planned, implemented, and evaluated by the cooperative instructional team. During and following the learner's program, evaluations of progress are obtained. Evaluative information is continuously fed back to each of the components to improve the input provided by the component for a particular learner, as well as future learners. For instance, if sufficient educational progress was made over a semester or school year so that the learner is no longer considered handicapped, this information, when processed through the feedback loop, would alter the learner's identification status. Similarly, if a special needs learner was assisted by funds from a new, private foundation, this information would be fed back so that the name of the foundation would appear on the list of instructional resources and be used as a future reference.

There are, of course, other ways in which to arrange the components of this system. Some educators would suggest that the system begin with identifying the available instructional resources or analyzing the knowledges and skills needed for employment. However, based on the field testing of the module series by teachers and coordinators, the system presented here provides a feasible and productive plan of attack for designing and implementing programs and services for the special needs learner.

A full description of each of the system components and sub-components can be found in the Module Descriptions on the following pages.

INSTRUCTIONAL DEVELOPMENT SYSTEM



MODULE DESCRIPTIONS

A series of seven modules is included in this inservice resource guide. The modules are designed for use by teachers, coordinators, and consultants from occupational education and special education programs. Each module focuses upon one function in developing instructional programs for special needs learners.

Included in the front section of each module are the following: (1) an introductory statement, (2) case studies describing special needs students and their teachers, (3) module goals statements, and (4) a description of the inservice experiences included in the module. From one to four inservice experiences are included in a module--with 16 inservice experiences in total. Procedures for completing each inservice experience, resource materials, instructional planning forms, and completed example forms are included in each of the 16 inservice experiences. Once you have completed an inservice experience a self-evaluation checklist is provided along with a resource bibliography.

Module 1:

Learner Identification and Analysis

This module includes three inservice experiences which outline procedures for collecting learner identification information and analyzing the strengths, weaknesses, and functional problems which the identified learner exhibits. Utilizing the assessment information to develop a prescription which describes "how the student learns most effectively" is also included. The three inservice experiences included are:

- Collecting Learner Identification Information (I.1)
- Developing a Learner Analysis Profile (I.2)
- Developing a Learning Prescription (I.3)

Module 2:

Cooperative Instructional Arrangements

Module 2 involves identifying other teachers and specialists who work with selected special needs learners. In order to plan and implement an effective program for a special needs learner, the cooperative involvement of several professionals is required. This module enables the user to identify and establish a cooperative, working arrangement with other professionals who work with the learner on a regular basis. The only inservice experience in this module is entitled:

- Developing a Cooperative Instructional Arrangement (II.1)

Module 3:

Instructional Resources

The full and efficient use of the personnel, services, and resources which are available in the school and community is highly important in providing instructional programs for special needs learners. This module describes techniques for identifying school and community resources which are available for special needs learners and their teachers. Several guidelines for establishing and using a program advisory committee to assist in identifying community resources are also included. The two inservice experiences in this module are:

- Developing a Special Needs Resource Inventory (III.1)
- Establishing and/or Using a Special Needs Advisory Committee (III.2)

Module 4:

Cluster and Content Analysis

This module outlines procedures for identifying and analyzing a cluster of occupations. This step is extremely important for identifying the skills, knowledges, and basic competencies the special needs learner will need for employment and independent adult living. Occupational training which is based on the skills needed in a cluster of occupations will provide the learner with more than one career option once he enters the world of work. The two inservice experiences in this module outline procedures for:

- Identifying Career Clusters (IV.1)
- Conducting A Career Cluster Analysis (IV.2)

Module 5:

Instructional Planning

The planning and sequencing of individual modules or units of instruction is described in this module. The units or modules are based on a "task" (such as Completing a job application form) which the student is to perform at the completion of the module. When the unit or module is developed it identifies the: occupational performance objectives, basic skills and concepts required (such as measuring), and instructional activities and materials to be used. Two inservice experiences are included:

- Developing Instructional Modules/Units (V.1)
- Sequencing Instruction (V.2)

Module 6:

Instructional Implementation

This module includes four inservice experiences which outline considerations that are important in various stages of implementing an instructional program for a special needs learner. The four inservice experiences include:

- Analyzing Instructional Materials (VI.1)
- Providing Reinforcement and Feedback (VI.2)
- Modifying the Learning Environment (VI.3)
- Planning and Coordinating Work Experience Programs (VI.4)

Module 7:

Evaluation of Learner Progress

During and at the completion of instruction, evaluation of the learner's progress is essential. Techniques for measuring and profiling the attainment of objectives and basic skills are included in this module, along with a procedure for conducting a learner follow-up survey. The two inservice experiences in this final module are:

- Developing a Learner Performance Profile (VII.1)
- Conducting a Learner Follow-up Survey (VII.2)

"Special needs learner" refers to those individuals who have traditionally been identified as handicapped or disadvantaged. It is important to note, however, that the term "special needs" identifies the learner in a completely different way than do the terms "handicapped or disadvantaged." Instead of identifying the learner as a person with a deficit, problem, or inadequacy, we are identifying the person simply as someone who has a different set of needs. This set of "special needs" which the learner exhibits requires us, as educators, to modify our instructional programs and provide additional services in order to meet those needs. The special needs learner is someone who requires additional, intensive instruction and supportive services before he can succeed in an educational program. The individual with special needs is defined by what he requires from us, and not by medical or psychological labels.

The following definition can be used to identify the population of learners for whom the ideas and techniques in this Guide are intended.

Someone with Special Needs

. . . is an individual who is having difficulty succeeding in a regular or special, career-oriented educational program due to the effects of a disability, disadvantage, and/or dysfunctional school placement, and who requires:

1. *individually prescribed, unique and more powerful teaching techniques,*
2. *supplemental or supportive services which vary in type and extent depending on individual need, and*
3. *additional resources from society for his education and for his acceptance by society.*

SELF-DIRECTED NEEDS ASSESSMENT

The Self-Directed Needs Assessment is designed to assist you in selecting modules and inservice experiences which are appropriate for meeting the inservice education needs of teachers and other professionals working with special needs learners. It can be used by individuals or teams to assess: (1) the importance of a series of professional tasks in their local program situation, and (2) to what extent they feel they need to know more about the tasks.

A series of 24 professional tasks are listed on the assessment checklist to be reviewed. For each task the reader is asked to consider two questions. Based on the response to these questions, suggestions are made which direct the reader to specific modules and inservice experiences which pertain to the task.

Once the inservice experiences have been completed, the Self Needs Assessment can be used again to determine the amount of information gained.

SELF - DIRECTED NEEDS ASSESSMENT

Directions: This checklist is designed to help you (or you and your colleagues) select modules and ins your needs and interests. For each of the tasks listed in the left hand column, you (or t If you do not perform the task leave it blank. After completing the checklist, add your c in the example. You may want to discuss the results with your inservice director.

Name: _____

Position: _____

School: _____

Date: _____

Professional Tasks	Question 1: How critical is successful performance of this task of the overall effectiveness of your program?					Question 2: I feel a need to know more about this task?				
	Unimportant		*Important*		*Extremely Critical*	*No*		*Yes, a bit more*		*Yes, much more*
Collect and use available assessment information	1	2	(3)	4	5	1	2	3	(4)	5
Collect and use available assessment information	1	2	3	4	5	1	2	3	4	5
Collaborate with other educators, specialists and parents in evaluating the learner's educational needs	1	2	3	4	5	1	2	3	4	5
Develop an individual learning prescription describing optimum conditions and media for instruction	1	2	3	4	5	1	2	3	4	5
Design and implement a system for monitoring and feeding back learner progress and achievement on a regular basis	1	2	3	4	5	1	2	3	4	5
Identify resource personnel (e.g. reading specialists or bilinguists) capable of providing supportive help	1	2	3	4	5	1	2	3	4	5
Formalize a cooperative, team teaching plan for serving special needs learners	1	2	3	4	5	1	2	3	4	5
Identify a variety of community and governmental agency resources in planning instructional programs and services	1	2	3	4	5	1	2	3	4	5
Establish and/or use program advisory committees	1	2	3	4	5	1	2	3	4	5
Identify occupations and clusters of occupations	1	2	3	4	5	1	2	3	4	5
Analyze occupational/career clusters to determine competencies needed in the world of work	1	2	3	4	5	1	2	3	4	5

Professional Tasks	Question 1: How critical is successful performance of this task of the overall effectiveness of your program? (Unimportant / Important / Extremely critical)	Question 2: I feel a need to know more about this task? (No / Yes, a bit more / Yes, much more)	Cumulative Score	Suggested Modules If the cumulative score for a task is 7 or greater, you should consider reviewing the following modules and inservice experiences.
11 Identify the basic aptitudes and competencies (e.g. finger dexterity or sequencing skills) required for employment in a given career.	1 2 3 4 5	1 2 3 4 5	____	Module 4; I.E. IV.2
12 Plan a sequence of modules or units of instruction according to the learner's needs	1 2 3 4 5	1 2 3 4 5	____	Module 5; I.E. V.2
13 Identify modules or units of instruction appropriate for special needs learners	1 2 3 4 5	1 2 3 4 5	____	Module 5; I.E. V.1
14 Coordinate occupational and academic instruction	1 2 3 4 5	1 2 3 4 5	____	Module 5; I.E. V.1
15 Develop performance objectives and goals	1 2 3 4 5	1 2 3 4 5	____	Module 5; I.E. V.1
16 Identify instructional activities appropriate for special needs learners	1 2 3 4 5	1 2 3 4 5	____	Module 5; I.E. V.1
17 Employ techniques or principles of special instruction (e.g. discrimination learning or cue redundancy)	1 2 3 4 5	1 2 3 4 5	____	Module 5; I.E. V.1 Module 6; I.E. VI.2
18 Evaluate and select instructional materials appropriate for special needs learners	1 2 3 4 5	1 2 3 4 5	____	Module 6; I.E. VI.1
19 Provide reinforcement for learning	1 2 3 4 5	1 2 3 4 5	____	Module 6; I.E. VI.2
20 Manage and modify when necessary the tools, equipment, facilities, materials, and conditions in the learning environment	1 2 3 4 5	1 2 3 4 5	____	Module 6; I.E. VI.3
21 Plan and coordinate off-campus work (on-the-job) instruction	1 2 3 4 5	1 2 3 4 5	____	Module 6; I.E. VI.4
22 Plan and coordinate on-campus work (on-the-job) instruction	1 2 3 4 5	1 2 3 4 5	____	Module 6; I.E. VI.4
23 Use a variety of performance measures to assess a learner's progress	1 2 3 4 5	1 2 3 4 5	____	Module 7; I.E. VII.1
24 Obtain follow-up information on needs students leaving or ing from school programs	1 2 3 4 5	1 2 3 4 5	____	Module 7; I.E. VII.2

M O D U L E 1:

LEARNER IDENTIFICATION AND ANALYSIS

One of the first and most important considerations in developing curriculum or instructional plans is the target audience which will be served. Assessing the learner's level of educational, psychological, physiological, cognitive, and social development is an important initial activity for vocational and special educators. Recognizing the unique characteristics and special needs of individual students is essential in determining what instructional content is appropriate and which teaching methods and materials can be used effectively.

Overview

This module describes three activities which are critical in the process of identifying and analyzing the needs of special learners. Each activity is aimed at collecting and compiling information to answer these basic assessment questions:

1. What is the general nature of the learner's educational problem(s)?
2. What specific learning weakness, problems, and strengths does the learner demonstrate?
3. What types of materials and methods and learning situations are most appropriate for this learner?

First, some basic identification information is needed to determine the general nature of the learning problem. Often this information can be found on referral forms which describe the student and tell "why" he or she is in need of special services. While such information is usually collected for administrative purposes, it can also be helpful to the instructional development team of occupational and special educators as well.

Once the special needs learner is identified through the accumulation of basic referral information, a more detailed analysis of the student's learning strengths, weaknesses, and special problems needs to be undertaken. This learner analysis is based on information from documented sources, as well as observable learner behaviors, and provides an overview of the learner's unique characteristics in a variety of different performance areas.

The third basic type of information is provided in the form of a learning prescription. Based on available diagnostic information and the learner analysis profile, a description should be prepared to provide information on the individual's learning style. A learning prescription outlines the instructional techniques and materials which are most appropriate for the learner being served.

Finally, it should be pointed out that learner analysis is a continuous, on-going process rather than solely a one-time assessment activity. Frequently, teachers, psychologists, and others consider this activity to be a staffing where test data and student records are reviewed. To be effectively utilized learner analysis profiles and learning prescriptions must be reviewed and up-dated at least every two months. The cooperative team should review the learner's progress relative to gains and improvements made in each of the analysis profile areas. The ultimate goal is to remediate and minimize the learner's special needs to a level where he or she can be productively employed and economically independent.

John: A Case Study

John and his family recently moved to the community. He is 16 years old and will be beginning the 10th grade in the Fall. In his previous school he was placed in a classroom for the educable mentally retarded. After reviewing John's records, the school psychologist and director of special education decided to conduct an educational assessment and a placement staffing. This is a common practice in most school districts for new students who have transferred from special education programs in other districts, as well as for students in the district who are referred for special education services. This school district, like others in the state, is required to conduct an assessment and placement staffing for each special needs student at least once a year and more frequently if necessary.

The school psychologist assembled and reviewed all of the information from John's previous school records. Based on the available test information and other data, the school psychologist evaluated John using a series of aptitude tests and interest inventories.

For the first two weeks of school John was placed in several regular classes and in a special education resource room. The resource room teacher used a number of diagnostic exercises during the first two weeks of school to assess his skills and aptitudes in: basic math and measurement, verbal communication, writing, sequencing, spatial perception, and a number of other areas. Ms. Galli, the resource teacher, also closely observed the development of John's social relationships with his fellow students. In addition to being placed in English, American History, and General Math, John was also enrolled in an introductory auto mechanics course. Each of these regular class teachers was asked by Ms. Galli to provide John with as many exploratory experiences as possible during the first two weeks.

During the third week of school the Assistant Director of Special Education for the school district scheduled a meeting of John's teachers, a counselor, the school psychologist, and his parents. At the meeting the psychologist presented and discussed the information he had accumulated from the records and through testing. Ms. Galli indicated that the diagnostic exercises in the resource room had shown John in need of extensive additional help in basic math processes (addition, subtraction, multiplication, and division), and in writing. The auto mechanics teacher, Mr. Laird, noted that John is extremely interested in working on small gas engines because he has a mini-bike. Mr. Laird felt that with some extra help in math and measuring John can continue in the regular class.

During the discussion John's problems and strengths in different basic skill areas were recorded on a Learner Analysis Profile chart. After 45 minutes of discussion a comprehensive "picture" of John begins to appear on the profile chart. John's parents and teachers are able to see graphically the areas from several presented on the profile, in which John will need

special assistance. Based on the profile and the discussion which has taken place, the group decides to keep John in the five classes in which he is presently enrolled. However, the director suggests that the group meet again after the first semester to review John's progress.

As the meeting comes to a close, the teachers appear to express a common interest and concern for John. The auto mechanics and resource room teachers decide to schedule a weekly meeting to coordinate some of the resource room instruction in basic math with the applied math John will be learning in the auto mechanics class. By listening to each other's experiences with John, both the teachers and his parents feel that they have a more extensive and thorough understanding of John's educational needs. His parents also feel quite satisfied that the school is making an extended effort to address their son's individual needs.

Goals

Condition: Given the responsibility to initiate and deveop career-oriented educational experiences for special needs learners, upon completion of this module the inservice participant will:

Performance Competencies:

1. Compile an identification/referral information form for at least one special needs learner.
2. Collaborate with other educators in the development of a learner analysis profile for at least one special needs learner, describing the learner's strengths and weaknesses.
3. Develop a learning prescription for at least one special needs learner, describing optimum conditions and media for instruction.

Inservice Experience Descriptions

Three inservice experiences are included in this module. Each of these inservice experiences may be used in either individual or small group instructional situations. In either case, these activities are designed to acquaint the inservice participant(s) with procedures, criteria, and guidelines for identification and assessment of special needs learners.

Inservice Experience I.1:
COLLECTING LEARNER IDENTIFICATION INFORMATION

This experience involves collecting basic information on each of the special needs learners as they are referred or informally identified. The basic student information is collected from student files and personal interviews. The product from this experience is a completed student information form on each student.

Inservice Expereince I.2:
DEVELOPING A LEARNER ANALYSIS PROFILE

This experience enables the members of the cooperative instructional team and other supportive personnel to develop an individual profile on the special needs learner to be served. This profile analysis provides an assessment relative to eight basic skill areas (e.g., quantitative skills, verbal skills). The product from this experience is a completed learner analysis profile.

Inservice Experience I.3:
DEVELOPING A LEARNING PRESCRIPTION

This experience focuses upon using the identification and profile information to suggest instructional techniques and materials which may be appropriate for the learner. The product of this experience is a description of the media, methods, and instructional situations which will be most appropriate for the special needs learner.

Inservice Experience Selector

Following consultation with the inservice director, I (we) have decided to undertake and complete the Inservice Experiences which are checked (✓) below for Module 1.

_____ Inservice Experience I.1: Collecting Learner Identification Information

_____ Inservice Experience I.2: Developing a Learner Analysis Profile

_____ Inservice Experience I.3: Developing a Learning Prescription

Date: _____

School: _____

Inservice Director:

_____

Participant Name(s)

_____

_____

_____

_____

INSERVICE EXPERIENCE I.1:

COLLECTING LEARNER IDENTIFICATION INFORMATION

The first step in the process of identification of a special needs learner involves the collection of certain basic information about the student. Most school districts have established a referral process which is used to identify students in need of special services. In the past, when teachers or other professionals have felt that a student is having problems which require special attention, the student has frequently been "referred," and subsequently taken out of the regular instructional program. In some cases, the resulting placement in special classes has proven to be productive, while in many others it has been shown to be of little benefit for the mildly or moderately handicapped student. In either case, the identification and referral process has often removed the student from the peer group, and negatively labelled him or her to both the student's peer group and the teaching staff.

The current trend in providing special services is to decrease the number of "referrals out" of regular programs. The aim instead is to minimize labelling, utilize the "least restrictive placement" for the student, and provide special assistance for both the teacher and student in the regular classroom (whenever possible). When managed properly, this arrangement can provide an optimum and productive learning environment for the student with reduced opportunity for the stigma of labelling to occur.

However, some basic information is needed before the special services can be provided to the student while he/she is enrolled in either regular or specially-designed occupational programs. The identification referral process usually begins when a teacher or parent feels it necessary to bring

to the attention of other teachers, specialists, coordinators, and administrators the fact that a particular student is having difficulty. The first step in this process involves collecting some basic information to verify that the student is indeed having such difficulty that further professional attention is needed.

Guidelines and Suggestions

The following guidelines provide several procedures and suggestions which can be used for collecting student identification information. These suggestions will enable you to become familiar with the referral and identification process used in your school district, or to develop one for your program if it is needed. After reading this section you should complete a Student Identification Form for at least one special needs learner with whom you will be or presently are working.

1. Review any existing identification criteria, procedures and/or forms used for the referral of special students in the district. It is important that you are familiar with any existing process so that the identification process developed or used here does not result in a duplication of effort.

2. It is also important to consider the state department's identification criteria as well. Often times in order for the district to receive state grants or reimbursement for services to special students, certain identification information is required. Depending upon the local district's plan for providing this information, it may or may not be necessary to consider this in collecting student identification information. A sample of the identification information required in Illinois for reimbursement of vocational education programs for disadvantaged persons is provided on the following page.

   [*RESOURCE MATERIAL: Identification of a Disadvantaged Person (State of Illinois), Form I.1.1*]

3. The third step involves deciding specifically upon what type of identification information is important and essential to collect. Most student identification or referral forms include the following:

   - Name, age, birthdate, sex, school and grade placement of student
   - Name, address, and phone numbers of parents or guardians
   - Date on which the information is submitted for review
   - Name of referring teacher or teachers, or, in some instances, parents
   - Reason for the referral (usually a detailed description of the specific problems the student is encountering)
   - Special services the student is already receiving
   - Type of action the referring professional suggests as being appropriate
   - Name and title of the individual to whom the identification information is submitted. This is usually the building principal or director of special education.

   The sample student identification form (I.1.2) provided on the following page illustrates a form that is currently used for this purpose. This form was prepared by the counselor when our example student, John, enrolled at MacArthur High School. After reviewing this form, you should carefully consider the exact information you feel is needed for the identification process in your situation.

   [*RESOURCE MATERIAL: Student Information/Identification Form, Form I.1.2*]

4. Careful consideration also has to be given to how the student identification information will be collected. Questions of <u>who</u> should compile the information, and which <u>information sources</u> are to be used will also influence the identification-referral process. In some instances parents will point out the specific problems to individual teachers or counselors, and request that a referral be initiated. In most cases however, teachers or other school personnel will initiate the referral and utilize their observations as an information base when compiling the necessary information. Parent and student interview school records, and numerous other references can and should be consulted for background information.

IDENTIFICATION OF A DISADVANTAGED PERSON (State of Illinois)

IDENTIFYING DISADVANTAGED AND HANDICAPPED PERSONS

Proper identification of disadvantaged and handicapped persons facilitates occupational education program planning; evaluation; reporting and funding; and accountability at federal, regional, state, and local levels. Each local educational agency should establish its own identification system based on the definitions and the criteria as explained in this chapter.

The identification process is an annual activity. A person who has overcome his disadvantagement or handicap during one school year should not need special services the next year to succeed in an occupational program. Therefore, he should no longer be identified as disadvantaged or handicapped. Also, a student who has been identified as disadvantaged or handicapped in the program in which he was formerly enrolled may no longer be so identified if he changes to a program in which he can succeed without special assistance.

Identification of a Disadvantaged Person

Definition

A disadvantaged person is one who has an academic, socioeconomic, cultural or other disadvantagement which prevents him from succeeding in a regular occupational program designed for a person without such a disadvantagement, and, who for that reason, needs a program modification, supplemental services and/or special educational program in order to benefit from occupational education.

Disadvantaged persons shall be identified by one or more of the following criteria or other similar documented criteria:

Criteria For Identification

- Are overage for grade by at least two years
- Have difficulty communicating in writing or speaking
- Are frequently absent from class or work without apparent cause
- Have a reading level at least two grades below grade placement
- Have a mathematical ability at least two grades below grade placement
- Exhibit hostile or apathetic behavior
- Need economic assistance to continue their educational programs

SPECIAL NEEDS PROGRAM - STUDENT INFORMATION/IDENTIFICATION FORM

Directions: Please complete as much of the information below as possible. Sources of information to be used in completing this form include: pupil school records, classroom observations, and individual counseling with the student.

Student Name: John Grade 10 Referral date 8-1-76

Address: 1428 W. River Valley Rd. Sex M Birthdate 12-15-60

Age: 16

Reason for Referral Action: Was originally referred is a previously attended high school. Parents requested referral when he was enrolled.

PARENTS: Father's Name: Thomas J.

Address: 1428 W. River Valley Rd. Telephone: 438-6167

Mother's Name: Jessy

Address: same Telephone:

Guardian's Name: Relationship:

Address: Telephone:

EMPLOYMENT: Father: Construction foreman

(occupation and place of employment) Mother: Housewife

Guardian:

PARENTS CONTACTED: ✓ Yes ____ No

STUDENT EMPLOYMENT GOALS:

SPECIAL SERVICES BEING RECEIVED: Placed in E.H.A. class the previous year

RECEIVED BY: J. B Barnes, (Title): Dir of Sp. Ed (Date): 8-2-76

ACTION TAKEN: After a discussion with John and his parents he was placed in two regular classes and the resource room at MacArthur H.S. A placement staffing was scheduled for 10-2-76.

SPECIAL NEEDS PROGRAM - STUDENT INFORMATION/IDENTIFICATION FORM

Directions: Please complete as much of the information below as possible. Sources of information to be used in completing this form include: pupil school records, classroom observations, and individual counseling with the student.

Student Name: _____ Grade _____ Referral date_____

Address: _____ Sex _____ Birthdate_____

Age: _____

Reason for Referral Action: _____

_____

_____

PARENTS: Father's Name: _____

Address: _____ Telephone: _____

Mother's Name: _____

Address: _____ Telephone: _____

Guardian's Name: _____ Relationship: _____

Address: _____ Telephone: _____

EMPLOYMENT: Father: _____

(occupation and place of employment) Mother: _____

Guardian: _____

PARENTS CONTACTED: _____ Yes _____ No

STUDENT EMPLOYMENT GOALS: _____

_____

SPECIAL SERVICES BEING RECEIVED: _____

_____

RECEIVED BY: _____, (Title):_____ (Date):_____

ACTION TAKEN: _____

_____

_____

5. Recently numerous questions and discussions relating to the confidentiality of student records have emerged from court rulings. It is important to determine your school district's policy regarding the use of information in student files for purposes of referral-identification.

6. When an identification-referral form is developed or adapted from an existing one, it should be reviewed by other staff members and tried out on several special needs students.

7. Once the student identification information is collected and summarized, it must be submitted to the appropriate person for action. As suggested earlier, this will usually be the building principal or director of special education. However, it is important that this individual have the responsibility and authority to see that the referral-identification is acted upon.

8. Depending upon the availability of special services and the nature of the student's special need, a variety of actions may then be undertaken by the principal or director of special services. In some cases it may be appropriate to conduct a meeting of the student's teachers to determine what special considerations or modifications are needed in the student's instructional program. In other cases it may be necessary to have the student's hearing or vision tested, or to have a diagnostic-prescriptive assessment done to determine more specifically the student's learning problem(s).

9. In summary, the identification-referral process can easily become bogged down in paperwork and exhaustive procedures. It is best to keep it as simple and as efficient as possible. Collect only the information needed to have the student formally identified as a special needs learner. To accomplish this the information collected on each student should reflect the identification information needs of:

   - the cooperative team of teachers who will be or are working with the student.
   - the state and/or federal agencies who may provide reimbursement or special funding on a per student basis.
   - the local special education program identification criteria.

Self-Check Evaluation

Inservice Experience I.1: Collecting Learner Identification Information

Directions: This self-check is designed to help you evaluate your performance for this inservice experience. For each of the items below, rate the student information-referral form which you have compiled for a special needs student. Expand or revise the form or the information presented following this evaluation.

1.	Describes the learning problem only superficially	1	2	3	Accurately describes the general learning problem encountered by the student
2.	Descriptive information on the student is incomplete	1	2	3	Descriptive information on the student is complete
3.	Descriptive information on the parents/guardians is incomplete	1	2	3	Descriptive information on the parents/guardians is complete
4.	Referring teachers or personnel are not identified	1	2	3	Referring teachers or personnel are identified
5.	No suggestions are provided on possible special services needed	1	2	3	Clear, concise, and reasonable suggestions are made on appropriate special services
6.	No indications as to whether parents were or should be notified	1	2	3	Clear indication that parents have or have not been notified and supporting reasons given

Comments:

Suggestions for Modification of the Student Identification Form:

INSERVICE EXPERIENCE I.2:

DEVELOPING A LEARNER ANALYSIS PROFILE

NOTE: This inservice experience should be conducted only after the instructors have had some experience in working with the special needs learner(s) who has been identified. A minimum of two weeks of regular classroom contact with the student is needed before a realistic and comprehensive learner analysis profile can be developed.

Once the student(s) has been formally identified, it then becomes the responsibility of the cooperative instructional team (occupational and special educators) to design and implement an effective instructional program. One of the tasks which needs to be completed during the early phase of instructional development is the preparation of a Learner Analysis Profile.

The eearner Analysis Profile is designed to provide the cooperating team with an overview of the student's learning strengths and weaknesses, which, in turn, provides a basis for developing a learning prescription for the student. It is important to note here that both strengths and weaknesses can provide important diagnostic information for teachers, counselors, and other personnel who have contact with the student.

In the past educators have typically looked at the problems of special students and attempted to provide special remediation in discrete disability areas, e.g., mental retardation or emotional disturbance. Oftentimes, however, we have found that certain individuals have overcome their handicaps by compensation. For example, many individuals have developed their cognitive or intellectual abilities to a level where they are no longer vocationally handicapped by their inability to walk. Thus, it is important to keep in

mind the learners' strengths, as well as their disabilities when developing a Learner Analysis Profile.

The relationship between cause and effect of handicapping and disadvantaging situations is frequently unclear when a special needs learner is identified. In order to be useful, a Learner Analysis Profile must focus upon the effects, and not the causes, of the educational situations which require special attention. Simply because individuals are poor, visually handicapped, or a member of a minority group does not mean that they can automatically be classified as special needs learners. Instruction and supportive services cannot be formulated on the sole basis that a person is Black, Spanish, poor, a migrant, or for any other cause. In order to be effective, instruction and special services must be designed to overcome specific effects, such as academic deficiencies, motivational problems, limited computational skills, and so on (U.S. Office of Education, 1972). It logically follows then that a Learner Analysis Profile must focus upon specific academic, behavioral, perceptual, or social competencies instead of simply indicating that the learner is mentally retarded or culturally disadvantaged. Without a Learner Analysis Profile which provides useful information for instructional planning this activity of assessment is of little value.

Guidelines and Suggestions

The following guidelines and suggestions provide procedures for developing a Learner Analysis Profile. When you have finished reading this section, you should collaborate with other teachers, if possible, and compile a Learner Analysis Profile for a special needs student.

1. An example Learner Analysis Profile, which was developed by John's teachers, is provided on the following pages (Form I.2.1). This form is similar to several different behavioral or developmental checklists that are commercially available. It is important to remember, however, that the specific format used for the Learner Analysis Profile should provide a comprehensive, behavioral description of the learner's strengths and weaknesses from an educational point-of-view.

   [*RESOURCE MATERIAL: John's Learner Analysis Profile, Form I.2.1*]

2. Appraisal/Assessment Team: The members of the cooperative instructional team should be the professionals primarily involved in developing the Learner Analysis Profile. Diagnosticians, psychologists, and other ancillary personnel can provide interpretations of test data and other supplementary information as needed. Parents should also be contacted, informed, and invited to attend the learner analysis/appraisal meetings where their son's or daughter's program is being discussed. It is essential that the members of the cooperative teaching team be directly involved in developing the learner's profile from the available diagnostic/prescriptive information, observation reports, and other information and data. Their involvement will make the resulting profile and learning prescription useful in planning classroom instruction.

3. Special Need Indicators: Eight broad categories of special need are identified in the Learner Analysis Profile. These categories represent the major basic skill areas in which the observable effects of handicaps or disadvantages tend to occur. The general categories of special need indicators include:

   - Quantitative/Numerical Skills
   - Verbal Skills
   - Cognitive Skills
   - Perceptual Skills
   - Language Skills
   - Psychmotor/Physical Skills
   - Social Skills
   - Occupational Interests

Learner: John

School: MacArthur High School

Date: October

LEARNER ANALYSIS PROFILE

Assessment/Appraisal Team:

Ms Galli, Resource Room

Mr. Laird, Auto Mechanics

Ms Jenkins, Psychologist

Special Need Indicators	Learning Difficulty ← → Learning Strength	Documentation/Observed Behavior
QUANTITATIVE/NUMERICAL SKILLS		
Count and Record		Scores at the 2nd and 3rd grade level on math achievement subtests
Add/subtract		No data on measuring skills
Multiply/divide		Recognizes denominations, but has trouble making change in additions
Measure		
General number use		
Money		
Other quantitative/numerical skills:		
VERBAL SKILLS		
Read		Reading comprehension and spelling scores on achievement subtests are at 5th grade level
Spell		
Record information		Sentence structure is extremely elementary
Verbal communication		
Written communication		
Other verbal skills:		
COGNITIVE SKILLS		
Retention		Has some difficulty retaining critical information (e.g., some addresses)
Sequence		
Attentiveness		Has some difficulty in planning ahead to complete tasks in the auto mechanics class
Planning ability		
Mechanical aptitude		
Transfer		
Other cognitive skills:		

Special Need Indicators	Learning Difficulty ... Learning Strength	Documentation/Observed Behavior
PERCEPTUAL SKILLS		
Auditory discrimination		Excellent hearing
Form perception		Unable to recognize subtle differences in shapes (e.g. pentagon and hexagon) and their relationships to other objects
Form discrimination		
Space perception		
Color perception		
Touch discrimination		
Other perceptual skills:		
LANGUAGE SKILLS		
Listening		Has to have directions repeated because of inattentiveness
Nonverbal expression		Needs help with basic vocabulary for auto mechanics course
Technical vocabulary		
Grammatical expression		
Other language skills:		
PSYCHOMOTOR/PHYSICAL SKILLS		
Physical strength		Arms and hands are quite well developed
Hand-eye coordination		
Manual dexterity		Has cerebral palsy and walks with a definite gait
Mobility		Has trouble with balance because of C.P. involvement in legs
Other physical skills: Balance		
SOCIAL SKILLS		
Sociability		Has several friends outside of resource room
Cooperativeness		Is cooperative most of the time
Conformity		
Loyalty		
Safety		
Responsibility		
Sensitivity		
Other social skills: Participative		Usually participates in small group instructional activities with no hesitation

Special Need Indicators	Learning Difficulty			Learning Strength		Documentation/Observed Behavior
OCCUPATIONAL INTERESTS						
Agriculture/Natural Resources						
Automotive and Power Services				•		Is interested in working on his mini-bike
Construction/Manufacturing						
Graphics/Communications						
Food/Clothing/Child Care						
Health						
Office/Business						
Other or specific occupational interests:						
No specific interests	•					His occupational interest inventory results don't reflect any strong positive occupational interests or aptitudes

A general definition for each of these categories is provided on Form I.2.2 on the following page. Within each of the major special need categories several specific basic skills are listed. There is also room provided for including additional basic skills that are not listed on the Learner Analysis Profile form.

[*RESOURCE MATERIAL: Special Need Indicator Categories Form I.2.2*]

4. Profile Ratings: For each of the special need indicators, the assessment/appraisal team is asked to make a determination as to whether or not this indicator identifies a strong or weak area in the student's school performance. Through discussion of documenting evidence and the noting of specific learner behaviors which the team has observed, a consensus rating for each special needs indicator is derived. This rating is made on a five-step rating scale which ranges from "learning difficulty" to "learning strength." Students who do not exhibit particular disabilities or strengths with regard to the "indicator" should be rated in the middle. When the rating is completed, the marks (checks or dots) can be connected to provide a profile of the student's learning style.

5. Specific test data found in the student's file and likely to be of limited value in developing the profile. In recent years formal testing of the paper and pencil variety has come under severe criticism when used with special needs students. Intelligence, aptitude, and achievement tests have been criticized for their cultural bias, lack of content validity, and lack of appropriate norms or reference groups.

   Another limitation is the testing media itself. When learners have difficulty reading arithmetic problems on an aptitude test, perhaps the test is providing indicators of reading ability instead of numerical aptitudes. The most significant criticism of testing programs has been the inadequacy of the results for suggesting appropriate teaching methods or materials. Few tests profiles can be readily translated into useful information that the teacher can use in planning or sequencing instructional experiences.

   This is not to say that all test results are useless. It is important: (1) to recognize the limitations of the specific test, (2) to know exactly what behaviors, aptitudes, etc. they are measuring, and (3) to use the results in a prudent and reasonable manner.

SPECIAL NEED INDICATOR CATEGORIES

Special Need Indicator Categories	Definition
Quantitative/Numerical Skills	Involves the ability to count, record, perform basic arthmetic processes, measure and otherwise use or manipulate numerical information.
Verbal Skills	Involves the ability to communicate in written and spoken forms.
Cognitive Skills	Involves the ability to follow instructions, remember, sequence information, plan, organize, and make decisions.
Perceptual Skills	Involves the ability to accurately perceive colors, forms, space, sounds, and odors.
Language Skills	Involves the ability to listen, understand, and express oneself using written and oral forms of language.
Psychomotor/Physical Skills	Involves the ability to coordinate and perform physical movements.
Social Skills	Involves the ability to interact with others and act independetly in an acceptable manner.
Occupational Interests	Identifies the learner's major cluster of occupational interest or preference.

6. Documentation for each rating made on the Learner Analysis Profile is critical. In order to make sound and unbiased ratings, it is important that both the special and occupational educators who are familiar with the student, document or validate their perceptions of the learning problems. Although collecting this type of information is less efficient compared to using tests, the validity and reliability of decisions made in this way are likely to be more accurate and effective over time.

   A number of different information sources can be used for documentation of strengths, weaknesses, or learning problems. Several possible sources are listed below:

   - Teacher report/referral
   - Diagnostic-prescriptive assessment
   - Social service agency referral
   - Parent communication
   - Employer/supervisor communication
   - Work sample evaluation report/profile
   - Medical examination
   - School achievement/attendance records
   - Visual or hearing exam

7. Diagnostic information obtained from or through these sources should be carefully reviewed before they are actually listed as documenting evidence for a particular learning problem or special need. Questions such as the following should be raised:

   - How current is the information?
   - Does it provide directions or suggestions for classroom teaching which are useful?
   - Does it provide information which is specific to the problem?

8. Observed Behaviors: The need for teachers to work closely with students and observe their behaivor was described earlier.

   Behaviors are observable, countable, and repeatable actions of the learner. Behavior is "observed" by seeing and/or hearing it. Behavior is "countable" when it can be recorded accurately and reliably by an observer.

A "repeatable" behavior must be able to occur more than once. Behaviors which are not repeatable are those which only occur once, such as "disrupting the annual student art fair." (Wallace and Kauffman, 1973).

Lilly (1975) suggests that the ability of teachers to describe the learning and behavioral problems of students by specifying observable behaviors which the learner exhibits, is a highly important skill. The process of learner needs analysis can be greatly simplified, and the problem more easily understood by recording: "Jane gets out of the seat too often." This provides a clearer understanding of the problem than if the behavior was described as "hyperactivity."

Learner: _____

School: _____

Date: _____

LEARNER ANALYSIS PROFILE

Assessment/Appraisal Team:

_____

_____

_____

Special Need Indicators	Learning Difficulty				Learning Strength	Documentation/Observed Behavior
QUANTITATIVE/NUMERICAL SKILLS						
Count and Record						
Add/subtract						
Multiply/divide						
Measure						
General number use						
Money						
Other quantitative/numerical skills:						
VERBAL SKILLS						
Read						
Spell						
Record information						
Verbal communication						
Written communication						
Other verbal skills:						
COGNITIVE SKILLS						
Retention						
Sequence						
Attentiveness						
Planning ability						
Mechanical aptitude						
Transfer						
Other cognitive skills:						

Special Need Indicators	Learning Difficulty				Learning Strength	Documentation/Observed Behavior
PERCEPTUAL SKILLS						
Auditory discrimination						
Form perception						
Form discrimination						
Space perception						
Color perception						
Touch discrimination						
Other perceptual skills:						
LANGUAGE SKILLS						
Listening						
Nonverbal expression						
Technical vocabulary						
Grammatical expression						
Other language skills:						
PSYCHOMOTOR/PHYSICAL SKILLS						
Physical strength						
Hand-eye coordination						
Manual dexterity						
Mobility						
Other physical skills:						
SOCIAL SKILLS						
Sociability						
Cooperativeness						
Conformity						
Loyalty						
Safety						
Responsibility						
Sensitivity						
Other social skills:						

Special Need Indicators	Learning Difficulty				Learning Strength	Documentation/Observed Behavior
OCCUPATIONAL INTERESTS						
Agriculture/Natural Resources						
Automotive and Power Services						
Construction/Manufacturing						
Graphics/Communications						
Food/Clothing/Child Care						
Health						
Office/Business						
Other or specific occupational interests:						

Self-Check Evaluation

Inservice Experience I.2: Developing a Learner Analysis Profile

Directions: Once you have compiled a Learner Analysis Profile, rate your completed profile on each of the following items by circling the appropriate number. Be sure to expand or revise the information presented on your completed profile as suggested by the results of this evaluation.

1.	Too many or too few special need indicators used	1	2	3	Appropriate number of special need indicators used
2.	Insufficient or inappropriate documentation provided for ratings	1	2	3	Appropriate documentation provided for all profile ratings
3.	Only diagnosticians or psychologists were responsible for the learner profile	1	2	3	An instructional team was involved in preparing the Learner Analysis Profile
4.	Documentation included categorical or medical labels	1	2	3	Documentation included specific behavioral descriptions of students special needs
5.	Documentation and descriptions were based on cause of the handicapping condition	1	2	3	Documentation and descriptions were descriptive of the educational effects of handicapping conditions
6.	The profile is of little value in instructional planning	1	2	3	The profile content is helpful for instructional planning

Comments:

Suggestions for Modification of the Learner Analysis Profile form:

INSERVICE EXPERIENCE I.3:

DEVELOPING A LEARNING PRESCRIPTION

A learning prescription is a description of the instructional techniques and materials which are especially appropriate for an individual special needs learner. Information describing the needs of a particular learner can be obtained through developing the Learner Analysis Profile, which was described in the previous inservice experience. However, the Learner Analysis Profile has little benefit unless the information obtained from it is incorporated in instructional planning. One of the shortcomings of testing and assessment programs is that they typically provide only marginally useful information for teachers. Developing a learning prescription is one way in which to compile instructionally helpful information. The educational or learning prescription involves a learner-based description of:

- Which media will be most effective for the learner.
- What types of classroom and interaction experiences are most appropriate.
- What general considerations are important in planning learning experiences for this learner.

Guidelines and Suggestions

The following guidelines and suggestions outline a set of procedures and considerations for developing a learning prescription. When you have completed this section you should proceed with developing a learning prescription for one or more special needs learners which you have identified.

1. An example learning prescription form which was developed for John, our example student, is presented on the following page.

[*RESOURCE MATERIAL: John's Learning Prescription, Form I.3.1*]

2. Based on initial classroom observations of the learner and the Learner Analysis Profile, it is possible for the instructional team to develop a learning prescription which describes:

   - the most appropriate learning mode(s) for the individual student
   - the most appropriate interaction mode(s) for learning
   - general considerations for planning the student's learning experiences

   This Learning Prescription can be used to guide the planning, implementing, and evaluating of instructional experiences. It is appropriate for in-school instructional programs, as well as on-the-job work experience training.

3. The Learning Prescription, like the Learner Analysis Profile, is in many ways a professional judgment regarding the needs of a particular learner. As the school year progresses, teachers need to re-evaluate both the Profile and the Prescription, and modify and refine them accordingly. As learners become accustomed to the teacher and other learners in the class, the types of interaction/communication techniques used by the teacher will change. Similarly, the appropriateness for using different instructional media with individual learners change.

4. One of the major benefits in developing a learning prescription is that it forces teachers to be aware of and examine different media and approaches. By examining different approaches and techniques teachers become sensitive to using different techniques which match the special needs and learning styles of the individual.

5. The Learner Analysis Profile can provide several clues for selecting the appropriate learning modes. John's profile, for instance, suggests that he has difficulty with form and spatial perception. Thus, the instructional team would not designate for John lab exercises or activities which require complex perceptual skills. This is not to suggest, however, that activities requiring lower levels of perceptual skills

LEARNING PRESCRIPTION

Learner: John

School: MacArthur High School

Date: October

Instructional Team: Ms. Halli, Resource
Mr. Laird, Auto
Mr. Jenkins, Psychologist

A. Appropriate Learning Mode

Directions: Indicate by numbering, the three most appropriate learning modes for this student. Check others that may also be appropriate.

- ✓ Audio/visual presentation
- ___ Observation of goal behavior
- ___ Interview/conference with knowledgeable person
- ___ Experiment/laboratory experience/project
- ✓ Programmed instruction
- ___ Simulation/games
- ___ Field experience(s)
- ✓ Role playing
- ___ Reading
- ___ Audio recording
- ___ Other (specify): ______

B. Interaction Mode

Directions: Indicate below the situations in which the student will work most productively.

- ___ Independently (alone)
- ___ Peer/partner
- ✓ Small group
- ___ Large group
- ✓ Individually with teacher or aide

C. Additional Learning Style Considerations:

Responds best to concrete, short-duration learning tasks
Utilize small group project activities which involve his friends in the class

67

are not appropriate. If the instructional team is interested in remediating John's perceptual difficulties, some type of perceptual materials will be required. The materials used, however, must be adapted to John's level.

6. The social skills category of the Learner Analysis Profile provides background information for selecting the appropriate interaction modes. In John's case, he apparently has adequate social skills and can interact with his peers without major problems.

Form I.3.1
Reproduction Master

LEARNING PRESCRIPTION

Learner:_____ Instructional Team:_____

School:_____ _____

Date:_____ _____

A. Appropriate Learning Mode

Directions: Indicate by numbering, the three most appropriate learning modes for this student. Check others that may also be appropriate.

____Audio/visual presentation
____Observation of goal behavior
____Interview/conference with knowledgeable person
____Experiment/laboratory experience/project
____Programmed instruction
____Simulation/games
____Field experience(s)
____Role playing
____Reading
____Audio recording
____Other (specify):
_____
_____

B. Interaction Mode

Directions: Indicate below the situations in which the student will work most productively.

____Independently (alone)
____Peer/partner
____Small group
____Large group
____Individually with teacher or aide

C. Additional Learning Style Considerations: _____

_____

_____

_____

_____

Self-Check Evaluation

Inservice Experience I.3: Developing a Learning Prescription

Directions: Rate the Learning Prescription which you have completed on each of the following items by circling the appropriate number in the three-point scale. After completing the evaluation you should modify your prescription as suggested by the evaluation.

1.	Information presented on the prescription is incomplete	1	2	3	The information presented on the prescription is complete
2.	Appropriate learning modes are not identified	1	2	3	Appropriate learning modes are clearly identified
3.	Appropriate learner interaction modes are not identified		2	3	Appropriate learner interaction modes are clearly identified
4.	Additional learning style considerations are not identified	1	2	3	Additional learning style considerations are identified
5.	Directions for completing the prescription are inadequate	1	2	3	Directions are clear, concise, and adequate

Comments:

Suggestions for Modification of the Learning Prescription form:

Resource Bibliography

The following are specific references of reading which can be reviewed along with each inservice experience. These readings expand upon the ideas, guidelines, and suggestions provided for each inservice experience.

Inservice Experience I.1: Collecting Learner Identification Information

Lilly, M. S. Special Education--A Cooperative Effort. Theory Into Practice, 1975, (2), 82-89.

Lilly, M. S. Special Education: A Teapot in a Tempest. Exceptional Children, 1970, 37, 43-49.

Wallace, G., and Kauffman, J. M. Teaching Children with Learning Problems. Columbus, Ohio: Charles E. Merrill Publishing Company, 1973.

Inservice Experience I.2: Developing a Learner Analysis Profile

Buffmire, J. A. Information for Inservice Training Development: A Collection from Field Efforts of the R.M.R.R.C. Salt Lake City, Utah: Rocky Mountain Regional Resource Center, 1975.

Egner, A. N., Burdett, C. S., and Fox, W. L. Observing and Measuring Classroom Behaviors. Austin, Texas: Austin Writers Group, 1972.

M O D U L E 2:

COOPERATIVE INSTRUCTIONAL ARRANGEMENTS

It has been widely recognized that instructional personnel from occupational and special education must work together closely in providing vocational preparation experiences for special needs students. As those who have tried know, getting teachers and other professionals from two fields to work cooperatively can sometimes be a difficult task. An effective and efficient means of facilitating cooperation to some extent is to develop a series of cooperative instructional arrangements for individual students.

Overview

A cooperating instructional arrangement is a vehicle for developing and implementing a formalized, cooperative instructional plan for a special needs learner. Essentially, it is a plan for systematically coordinating the personnel, resources, and services which are available both within the school and community. The cooperative instructional arrangement indicates which teachers, counselors, or work coordinators currently are, or will be, working cooperatively to meet the educational needs of the identified special needs learner. When necessary, cooperative instructional arrangements can also involve agencies outside of the school, such as vocational rehabilitation or sheltered workshops.

By developing a cooperative instructional arrangement, a comprehensive effort is made to fully utilize the resources available for the special needs learner. Designing a cooperative instructional arrangement often represents the beginning of a mutual concern for the learner. Professionals who enter into these cooperative relationships generally find it rewarding and satisfying to share their expertise in order to fully meet the needs of the special learner.

Once the special needs learner is identified and his/her educational needs assessed (Module 1), the next step is to identify a team of professionals who can adequately fulfill those needs. Module 2 is designed to accomplish this goal. The cooperative instructional arrangement developed in this module will provide a vehicle for the instructional development activities described in later modules such as instructional planning and evaluating learner progress.

Juan: A Case Study

Juan is the youngest in a large family of migrant farm workers from Mexico. There are seven children in the family which lives in the South in the winter and moves northward during the growing seasons. Spanish is the only language spoken in the home. Juan, who is 14 years old, has fallen far behind in reading skills and expresses a definite dislike for school. After being retained in the fourth grade for two years at his home school he was referred for special services.

He is now in the seventh grade in the middle school and receives individualized reading instruction for two hours a day in the learning resource center. For the remainder of the school day he is enrolled in regular classes, one of which is an industrial arts construction class.

Recently, the resource teacher, Lee Thompson, approached the industrial arts teacher, Jim Spence, regarding Juan's reading difficulties. Mr. Thompson asked to review the lab manual and text used in the construction class because Juan has expressed a great deal of interest in the surveying unit they were completing in the construction class. After some discussion the two teachers identified a number of basic printed and visual materials which Mr. Thompson could use to expand the unit on surveying and, at the same time, work on remediating some of Juan's reading difficulties.

This cooperative working relationship extended into other units once the surveying unit was completed. Three other special education students in the construction class also received special assistance once Lee and Jim became comfortable working together. As the school year progressed, Lee frequently provided in-class tutorial assistance for Juan and several other students, and accompanied the construction class on two field trips.

Annie: A Case Study

Annie is 16 years old and has been blind since the age of five. She lives with her mother and stepfather during the summer months. Since the fifth grade, when it became apparent to her parents and teachers that she needed to become less dependent on others, she has attended the state-supported residential school for the blind. In recent years she has come to fully accept her handicap and has demonstrated near-normal patterns of social, emotional, and psychological development. While attending the residential school she has learned to use a cane and has become quite independent, primarily as a result of attending the mobility training classes.

There are a number of occupational classes offered at the residential school for the junior and senior high school age students. Annie, however, has developed an interest in data processing, which is not offered at the school. It is available at the area vocational center, a public school which is twelve miles away. After several telephone conversations and an initial interview involving the counselor from the residential school (Ms. Crawley), the data processing teacher at the Center, the assistant director of the Center, and Annie, she was placed in the introductory key punching course. The counselor at the residential school agreed to have the written materials for the course brailled or transferred to cassette tapes for Annie. The costs for special equipment such as modified key boards are reimbursed through the state-federal vocational rehabilitation program.

Keeping abreast of Annie's needs and progress has required Ms. Crawley from the residential school to visit the Area Center frequently. It has paid dividends, however, because Annie adjusted well to the Area Center, and will be working part-time as a keypunch operator at a local bank during

the Spring semester. Ms. Crawley, the staff at the Area Center, and Mr. Nelson from the local rehabilitation office are all extremely pleased with Annie's performance to date, and plan to coordinate similar efforts for students from the residential school who are interested in attending the Area Center.

Goals

Condition: Given the responsibility to initiate and develop career-oriented educational experiences for special needs learners, upon completion of this module the inservice participant will:

Performance Competencies:

1. Identify potential cooperative instrucational arrangements for serving special needs learners.
2. Develop a cooperative instructional arrangement for one or more special needs learners, describing the team working with the learner and the services to be provided by each team member.

Inservice Experience Descriptions

Only one inservice experience is included in this module. Although this inservice experience is simple and straightforward, after reading the brief description below you may want to meet with your inservice director to discuss this experience in greater detail.

Inservice Experience II.1:
DEVELOPING A COOPERATIVE INSTRUCTIONAL ARRANGEMENT

This inservice experience will involve you in identifying other professionals, both in the school and in the community, who currently have, or will have, direct contact with the identified special needs learner. The product outcome of this experience is a formal indication of what instruction and supportive services will be provided by whom for the identified student.

Inservice Experience Selector

Following consultation with the inservice director, I (we) have decided to undertake and complete Inservice Experience II.1 from Module 2.

_____ Inservice Experience II.1:
Developing a Cooperative
Instructional Arrangement

Date: _____

School: _____

Participant Name(s)

_____

_____

_____

_____

Inservice Director:

_____

INSERVICE EXPERIENCE II.1

DEVELOPING A COOPERATIVE INSTRUCTIONAL ARRANGEMENT

As suggested earlier, one of the keys to effective instructional development is inter-disciplinary cooperation. In order to be fully effective specific plans for cooperation on behalf of selected special needs learners have to be formalized.

The Cooperative Instructional Arrangement (CIA) is really a tailor-made, individualized plan for systematically coordinating programs, services, and other inputs needed to provide comprehensive, well-rounded instruction. The CIA essentially identifies the members of the cooperative instructional team. Ideally, every student would have a unique cooperative team of educators working on his/her behalf. If this is not possible, however, CIA's can be developed for small groups of special learners (not more than 5 or 6) who will work with the same team of instructional personnel.

The basic cooperative team arrangement is composed of one or more representatives from career-related instruction areas (auto mechanics, health, home economics, etc.), and one or more representatives from special education or special services (special education teacher, reading specialist, speech therapist, etc.). For certain special learners it may be appropriate to utilize additional provisions in the cooperative arrangement. For instance, it may be appropriate or necessary to include work experience or work-study coordinators, or supportive agency personnel (e.g., rehabilitation counselors) if the student works part of the school day.

The specific makeup and effectiveness of the cooperative instructional arrangement/team will depend upon: (1) the placement and school schedule

of the learner, and (2) the availability, willingness, and commitment of instructional personnel to serve the special learner.

Administrative endorsement of the CIA is also critical to its effectiveness. Since the CIA depends heavily upon optimum placement for individual special needs learners and appropriate scheduling, it is highly important that the administrator be involved in planning and formulating the CIA.

Guidelines and Suggestions

Several suggested procedures and guidelines are provided below for developing cooperative instructional arrangements. After reading this section of the module you should follow the guidelines in completing a cooperative instructional arrangement form for at least one special needs learner with whom you currently are or will be working.

1. Two completed examples describing the Cooperative Instructional Arrangements developed for Juan and Annie are presented on the following pages.

   /RESOURCE MATERIALS: *Juan's Cooperative Instructional Arrangement, Form II.1.1*
   Annie's Cooperative Instructional Arrangement, Form II.1.2/

2. There are four possible cooperating groups (provisions) identified on the Cooperative Instructional Arrangement form. Not all four provisions will be necessary for all students. The number of cooperating parties (provisions) involved will depend upon the school situation and the severity of the student's special needs. Juan, for instance, is served in one building by only two cooperating provisions - career-related instruction (the construction class) and the special education resource room. Annie's situation is somewhat more complex. She receives the career-related instruction at the area vocational center, work adjustment counseling and mobility training at the residential school, and supportive assistance under vocational rehabilitation. A fourth critical person in her instructional team is the coordinator and supervisor for her part-time cooperative work experience at the local bank.

Form II.1.1

COOPERATIVE INSTRUCTIONAL ARRANGEMENT

for

Jim

Career-Related Instruction Provision

Title of course in which student is enrolled: Construction

Instructor(s): Jim Spence

Location/Building: Rm. 23 / Jefferson Middle School

Planning Period: 8:20 - 9:20

Special Instruction or Services Provision

Type of instruction/service provided for student: Resource Room

Instructor(s)/Consultant(s)/Specialist(s): Lee Thompson

Location/Building: Rm. 18 / Jefferson Middle School

Planning Period: 8:20 - 9:20

Cooperative Work Experience Provision

Job Title:

Location of Work Station:

Work Schedule:

a.m.:

p.m.:

School Coordinator:

Planning period: :

Job Supervisor(s):

Supportive Agency Provision

Agency Name:

Contact Person:

Telephone:

Description of Specific Service or Instruction to be Provided for the Student:

ADMINISTRATIVE ENDORSEMENTS

*School Administrator(s):

(1) John Van Camp, Principal

(2)

Agency Endorsement (if needed):

District: Madison Public Schools

School(s): Jefferson Middle School

Date: September 5

*e.g. *Building principal, director of special education, and/or director of vocational education*

Form II.1.2

COOPERATIVE INSTRUCTIONAL ARRANGEMENT

for

Alexis

Career-Related Instruction Provision

Title of course in which student is enrolled: Keypunching I

Instructor(s): Ms Phillips

Location/Building: Rm 188/Area Center

Planning Period: 11:15 - 12:05

Special Instruction or Services Provision

Type of instruction/service provided for student:

Instructor(s)/Consultant(s)/Specialist(s): Ms. Crawley

Location/Building: Rm 7/Sch for the Blind

Planning Period: 8:00 - 5:00

Cooperative Work Experience Provision

Job Title: Keypunch Operator

Location of Work Station: First National Bank

Work Schedule:

a.m.:

p.m.: 1:00 - 4:30

School Coordinator: Ms. St George/Area Center

Planning period: 11:15 - 12:05

Job Supervisor(s): Ed Hogan

Supportive Agency Provision

Agency Name: Vocational Rehabilitation

Contact Person: Eric Nelson

Telephone: 384-7572

Description of Specific Service or Instruction to be Provided for the Student: Partial reimbursement for employer's expenses for on-the-job training

ADMINISTRATIVE ENDORSEMENTS

*School Administrator(s):

(1) Fred Hudson/AVC

(2) Wayne LeRoy/Sch for Bl. Blind

Agency Endorsement (if needed): Eric Nelson

District: Woodside Schools

School(s): Area Vo. Center

Date: Sept. 18

*e.g. *Building principal, director of special education, and/or director of vocational education*

3. Under the career-related instruction provision, in-school vocational or practical arts courses at both the junior and senior high level should be listed.

4. The special instruction or services provision includes such persons as special education teachers, reading specialists, remedial instructors, speech therapists, counselors, psychologists or any other persons employed by the school to provide special or supportive services to handicapped and disadvantaged students.

5. The cooperative work experience provision should identify the school coordinator and job supervisor for the special needs learner who is working part-time either at the school or in the community.

6. The fourth potential cooperating party, the supportive agency provision, identifies a person(s) from an external agency (outside of the school district) who are providing some form of special assistance for the learner. Vocational rehabilitation, sheltered workshops, manpower training programs, or health agencies typically fall in this category.

7. If the learner is currently enrolled, one of the first tasks is to obtain a copy of the learner's class schedule and attach it to the back of the CIA form. This will enable you to identify which teachers with whom the learner has daily or regular contact.

[RESOURCE MATERIAL: Juan's Class Schedule, Form II.1.3]

8. It is important to remember that only two provisions need to be designated to form a minimal cooperative instructional arrangement. It is vitally important to remember that the number of cooperators will depend upon the learner's school schedule and the severity or nature of his/her special need. If a learner is old enough to work in a work experience program and has a disability or disadvantage that requires supportive assistance from an external agency (e.g., vocational rehabilitation) the cooperating instructional team should include the persons who provide this supervision or assistance. In addition, the learner may be enrolled in an occupational class that is related to his work experience. It is also possible that the learner may be enrolled in special education. If this is the case, there is a definite need to coordinate to some extent the instructional experiences being provided to the learner in each of these different programs.

9. In addition to identifying the professionals involved in the CIA, the specific services or instruction to be provided by each should be briefly described.

10. Names, locations, and possibly phone numbers for each member of the cooperative instructional team should be provided.

11. In some situations it may be helpful to attach existing training plans, supportive service agreements, or other information pertinent to the special needs learner identified on the CIA form.

12. Administrative involvement is critical to the success of the CIA. Oftentimes only administrators can provide the critical actions and resources necessary to make the CIA function effectively. As the CIA is discussed among staff members, administrative involvement is needed with the understanding that such scheduling modifications as the following may be needed for certain learners:

    - Extensions of time for program completion by selected learners.
    - Open entry/open exit scheduling which permits entrance/exit at different intervals as the learner progresses through instruction.
    - Instruction on an individualized basis.
    - Flexible scheduling with modular-based instruction.
    - Laboratory-type "hands-on" courses for extended study or deficiency remediation.

13. In addition to scheduling modifications, administrators need to recognize that other resources are essential in implementing the CIA. The involvement of administrative personnel in developing this arrangement will generate their support for: (1) purchase of specially-designed textbooks, instructional materials, and equipment, (2) modification of equipment or instructional materials; and (3) providing the necessary supplemental educational services.

14. Copies of the completed Cooperative Instructional Arrangement plan should be made, and distributed to all individuals identified by the plan, as well as the parents or guardians of the special needs learner.

STUDENT CLASS SCHEDULE

School: *Jefferson Middle School*

Student: *Juan* Semester: *Fall* Grade: *7*

Period	Class	Location	Instructor
1 8:45 - 9:30	Industrial Arts-Construction	18a	Spence
2 9:35 - 10:20	Learning Resource Center	43	Thompson
3 10:25 - 11:10	Learning Resource Center	43	Thompson
4 11:15 - 12:00	Physical Education	Gym	Jenkins
5 12:00 - 1:00	Lunch		
6 1:00 - 1:45	English	36	Smithson
7 1:50 - 2:35	Social Studies	39	Turner

NOTE: The student's class schedule is attached to the back of the cooperative instructional arrangement form.

Form II.1.1
Reproduction Master

COOPERATIVE INSTRUCTIONAL ARRANGEMENT

for

_____

Career-Related Instruction Provision

Title of course in which student is enrolled: _____

_____

Instructor(s): _____

_____

_____

Location/Building: _____

Planning Period: ___ : ___ - ___ : ___

Special Instruction or Service Provision

Type of instruction/service provided for student: _____

_____

Instructor(s)/Consultant(s)/Specialist(s):

_____

_____

Location/Building: _____

Planning Period: ___ : ___ - ___ : ___

Cooperative Work Experience Provision

Job Title: _____

Location of Work Station: _____

_____

Work Schedule:

a.m.: _____

p.m.: _____

School Coordinator: _____

_____

Planning period: ___ : ___

Job Supervisor(s): _____

_____

_____

Supportive Agency Provision

Agency Name: _____

_____

_____

Contact Person: _____

Telephone: _____

Description of Specific Service or Instruction to be Provided for the Student:

_____

_____

_____

_____

_____

ADMINISTRATIVE ENDORSEMENTS

*School Administrator(s):

(1) _____

(2) _____

Agency Endorsement (if needed):

_____

District: _____

School(s): _____

_____

Date: _____

*e.g. *Building principal, director of special education, and/or director of vocational education*

Form II.1.3
Reproduction Master

STUDENT CLASS SCHEDULE

School: _____ _____

Student: _____ Semester: _____ Grade: _____

Period	*Class*	*Location*	*Instructor*
1 8:45 - 9:30			
2 9:35 - 10:20			
3 10:25 - 11:10			
4 11:15 - 12:00			
5 12:00 - 1:00			
6 1:00 - 1:45			
7 1:50 - 2:35			

NOTE: The student's class schedule is attached to the back of the cooperative instructional arrangement form.

Self-Check Evaluation

Inservice Experience II.1: Developing a Cooperative Instructional Arrangement

Directions: After having completed a Cooperative Instructional Arrangement form you are now ready to evaluate your performance. Rate your completed CIA form on each of the following by circling the appropriate number on the three-point scale. When you complete this evaluation it may be necessary to revise your completed form. If you rate below a "3" on any of the items, revise your completed CIA as suggested by the item.

1.	Only one provision is completed (filled in)	1	2	3	At least two provisions are completed
2.	Incomplete or inaccurate information is provided for	1	2	3	Complete and accurate information is provided
3.	One or more of the identified provisions is of questionable importance in meeting the educational needs of the student	1	2	3	Each identified provision is essential for meeting the educational needs of the student
4.	No administrative endorsements are provided	1	2	3	Appropriate administrative endorsements are provid

Comments:

Suggestions for modification of the CIA Form:

Resource Bibliography

The following are specific references of reading material which can be reviewed along with the inservice experience activity. The materials found in these readings expand upon the ideas, guidelines, and suggestions included in this inservice experience.

Antonellis, G. P. and James G. B. Cross Discipline Planning. Salt Lake City, Utah: Olympus Publishing Company, 1973.

Phelps, L. A. and Lutz, R. J. Career Exploration and Preparation for the Special Needs Learner. Boston, Massachusetts: Allyn and Bacon, Inc., 1977.

Young, E. B. et al., Vocational Education for Handicapped Persons: Handbook for Program Implementation. Washington, D. C.: U.S. Government Printing Office, 1970.

M O D U L E 3:

INSTRUCTIONAL RESOURCES

In order to effectively coordinate occupational and special education instruction, the instructional team needs to be aware of and utilize the resources and supportive services which are available. In this module resources are defined as persons or agencies which can provide services and other types of assistance for special needs learners. Resources are also used to assist instructional personnel working with special needs learners.

As society has become increasingly concerned with the needs of individuals with special problems, numerous programs and services have been established by federal, state, and local governmental agencies. The business community, industry, labor, civic groups and other public and private organizations also provide numerous resources for handicapped and disadvantaged individuals. It is vitally important that these community resources be used efficiently and coordinated with the resources available within the school district. This module provides several suggestions for identifying, coordinating, and using the instructional resources available in the community and within the school district.

Overview

Two types of instructional resources can be used to facilitate programming for special needs learners. School resources are those which are generally available within the school or school district. When developing individual programs for special needs learners, the commonly-used school resources include: (1) career-related instruction, (2) special or supportive instruction (such as a classroom special education teacher), (3) special or supportive services (such as a speech therapist or interpretor), (4) counseling, and (5) cooperative work experience instruction (usually provided by a co-op or work-study coordinator).

With the development of the career education movement, using community resources has become an important aspect of all educational programs. Community resources can be tapped to provide supportive assistance and services for both special needs learners and instructional staff. Community resources for special needs learners are generally available from: (1) federal, state, and local governmental agencies (such as the Employment Service), (2) community agencies and organizations (Goodwill Industries, for example), (3) business, industry, and labor organizations or associations, and (4) citizen or special interest groups such as the Lions or Kiwanis.

One means of identifying community resources is through the establishment and use of an advisory committee. Program advisory committees composed of parents, employers, and instructional staff, once they are established and operating, also can be extremely useful and helpful in the overall operation of occupational programs for special needs learners.

This module will include two inservice experiences which are focused on identifying and using resources. Inservice Experience III.1 involves

developing an inventory of the school and community resources which are locally available. The second inservice experience provides suggestions and guidelines for establishing and using program advisory committees.

Darlene: A Case Study

Darlene is a special needs learner enrolled in Mr. Lockwood's Commercial Foods I class. She is well coordinated and has no dexterity problems but has difficulty remembering instruction given in class. Mr. Lockwood has found that in a one-to-one learning situation she is able to perform well.

Darlene is very interested in baking and seems to have an artistic flair. She would like to work for a bakery and has expressed an interest in cake decorating. She has a great deal of patience and is willing to spend a considerable amount of time to accomplish the effect she wants.

Because of her interest and ability in Commercial Foods she is doing well in Mr. Lockwood's class. However, she is not interested or willing to spend time in some of her academic subjects. In consultation with the resource teacher (Ms. Grant) Mr. Lockwood has decided that some work experience would help Darlene see a need for math and reading.

Using the community resource data card index which they developed last year (see Inservice Experience III.1), Mr. Lockwood and Ms. Grant identified a short term work station for Darlene. Karl Williams, who is the head pastry chef at the Vandervilt Hotel, is an excellent chef and has the ability to relate well to students.

Darlene was pleased to be able to do work she did well and enjoyed. She began to see the need for reading and math but still had difficulty in

the classroom. Using the Special Needs Resource Inventory (see Inservice Experience III.1) Ms. Grant was able to locate individuals who could tutor Darlene on a one-to-one basis in math and reading.

Darlene is progressing and looks forward to Commercial Foods II class as well as a part-time co-op work experience with Mr. Williams next year. She is trying hard in her academic subjects now so that she will be able to graduate and take an apprentice position with Mr. Williams.

Goals

Condition: Given the responsibility to initiate and develop career-oriented educational experiences for special needs learners, upon completion of this module the inservice participant will:

Performance Competencies:

1. Organize and develop an inventory of available school and community resources.
2. Establish and/or use advisory committees to identify instructional resources.

Inservice Experience Descriptions

Two inservice experiences are included in this module. Each of these experiences may be completed by the inservice participants either in small group or individual inservice situations.

After reading the following paragraphs and in consultation with the inservice director, you should select and complete those experiences which are relevant and pertinent to your program situation.

Inservice Experience III.1:
DEVELOPING A SPECIAL NEEDS RESOURCE INVENTORY

This experience provides the opportunity to review and summarize available school and community resources. The product of this experience is a comprehensive directory of available resources and supportive services, which are locally available to support the educational program for special needs learners.

Inservice Experience III.2
ESTABLISHING AND/OR USING A SPECIAL NEEDS ADVISORY COMMITTEE

This experience involves either establishing a new advisory committee, or utilizing an existing committee to provide advice and direction for the special needs instructional program. The outcome of this experience is at least one advisory committee meeting in which educators, representatives of business, industry, and labor, federal or state agencies, parents, and learners collectively review and assess the proposed or existing program.

Inservice Experience Selector

Following consultation with the inservice director, I (we) have decided to select and complete the following inservice experiences for Module 3: Instructional Resources:

_____ Inservice Experience III.1: Developing a Special Needs Resource Inventory

_____ Inservice Experience III.2: Establishing and/or Using a Special Needs Advisory Committee

Date: _____

School: _____

Inservice Director:

_____

Participant Name(s)

_____

_____

_____

INSERVICE EXPERIENCE III.1:

DEVELOPING A SPECIAL NEEDS RESOURCE INVENTORY

An inventory of the available program resources is important in developing instruction. An inventory of available resources provides teachers, counselors, and coordinators from both occupational and special education with an expanded awareness of the professional services which are locally available for individuals with special needs, as well as services available to educators involved in working with special needs learners.

The Resource Inventory can be broadly divided into two categories: school resources and community resources. In the school resources category, the available resources might include: occupational instructors (e.g., auto mechanics teachers), teachers and consultants providing special services or instruction, counselors, work experience or work-study coordinators, job placement personnel, teacher aides, diagnosticians, or any other educator who has regular or frequent contact with special needs learners.

Utilization of community resources is also an important aspect of all educational programs. Educators have recognized for some time the importance of utilizing community-based, specialized employer-employee knowledge in the process of preparing students for active participation in the work force. Through full utilization of community resources, the experience and knowledge of the citizenry can provide realistic experiences for students - both in school and on the job site.

Instructional resources or supportive services for special needs learners can also be obtained from a variety of community resources. Such community resources as: (1) federal, state, and local governmental agencies,

(2) community agencies and organizations, (3) business, industry, labor organizations, and (4) citizen and special interest groups can provide a number of supplementary and supporting services.

Guidelines and Suggestions

The following suggestions and guidelines will assist you in developing a Resource Inventory for an existing or proposed special needs program. Once you have finished reading this section you should proceed with developing a resource inventory for your instructional program.

1. A suggested form for the Special Needs Resource Inventory is provided on the following pages. This is only a suggested form for compiling the Inventory and should be modified to suit the needs of your program.

   [RESOURCE MATERIAL: Special Needs Resource Inventory, Form, III.1.1]

2. When developing a Resource Inventory it is helpful to divide the resources to be surveyed into two broad categories - school resources and community resources. You will note that on Form III.1.1 the school resources are identified on the front of the sheet and the community resources on the back.

3. The Resource Inventory should be organized for an individual school program or departments, such as home economics or agriculture. Most school districts and communities are large enough that they require some specifics for designation of the available resources. Generally, the resources which are available and appropriate for occupational and special education programs in a community are numerous. For the purposes of organization and efficient use, the Resource Inventory to be developed here should focus on one particular occupational or special education program. The example inventory provided in Form III.1.1 is for the home economics program in a school district, and is used for all of the junior and senior high courses in the program.

Program: Home Economics

District: Portage Public Schools School(s): Lincoln High School / Adams Junior High Developers: Karen Tiedeman / John Lockman / Pete Johnston

Date: September, 1976

SCHOOL RESOURCES

	Resource Contact Person	Title or Responsibility	Location and Phone	Description of Specific Resource or Service
Career-Related Instruction	John Lockman	Teacher, Commercial Foods	Rm 118, Lincoln HS, ext 27	Commercial Foods I & II / Restaurant Management
	Anne Read	Teacher, Home Economics	Rm 124, Adams JHS, ext 32	Personal Home Economics / Foods I
	Jan Tye	Teacher, Consumer Educ.	Rm 213, Lincoln HS, ext 17	Consumer Education / Clothing Construction
Special/ Supportive Instruction	Karen Tiedeman	Teacher, Mentally Hdcp.	Rm 221, Lincoln HS, ext 12	Basic math and language arts instruction
	Bob Hammerman	Teacher, Remedial math	Rm 15, Lincoln HS, ext 15	Applied math / consumer math
Special/ Supportive Services	Jan Jones	Reading consultant	Lytle School, 626-3572	Diagnosis and remediation of special reading problems
	Carolyn Bailey	Speech therapist	Central Office, 628-2022	Diagnosis and remediation of speech/articulation problems
	Jerry Davis	Bilinguist	Lytle School, 626-3572	Assistance in communicating with students for which English is a second language
Counseling	Jess Chaffin	Counselor	Rm 12, Lincoln HS, ext 3	Occupational interest/aptitude testing (GATB, SDS, OVIS); Individual adjustment counseling
Cooperative Work Experience/Work Study	Pete Gibson	Vocational Co-ordinator	Rm 123 (a.m.) Lincoln HS, ext 19	Off-campus training stations
	Jack Jansson	Work study coordinator	Rm 236 (a.m.) Lincoln HS, ext 11	Off-campus training stations
Instructional Media and Materials				
Other School Resources	Martha Hillier	Instructional material consultant	Library Lincoln H.S. ext. 34	Development of special instructional materials for students with different handicaps

Form III.1.1

SPECIAL NEEDS RESOURCE INVENTORY

Program: Home Economics

COMMUNITY RESOURCES

	Resource Contact Person	Title or Responsibility	Location and Phone	Description of Specific Resource or Service
Federal/state Agency Resources	John Jones	VRS Counselor	17 North St., Portage 627-3333	Post-school training support; funds to offset employer costs for extra supervision for on-the-job training placement; follow-up services; funds for training materials
	Mary Lee Lacy	Home Economics Advisor	18 Country Lane Portage 627-4444	Resource materials; program development
Community Agencies/ Organizations	Larry Jones	Director, Portage Chamber of Commerce	185 Central St., Portage 628-3111	Career speakers for classroom presentations; advisory committee members; co-op training stations
Business/ Industry/ Labor Organizations	Sam Cummings	President, Association of Restaurant Workers	215 Court St., Portage 626-1313	Field trips to local restaurants and hotels; special student assistance fund
Citizen/ Special Interest Groups	Jack Gregory	President, Portage Lions Club	1515 W. Main, Portage 625-3646	Prosthetic aids (hearing aids, etc.); special financial assistance
	Alice Kay	Program Chairperson, Portage Home Economists	284 W. Wellington, Elmira 879-2642	Scholarships and employment information for home economics related areas
Other Communities Resources	Jo Ann Cotwell	Education Chairperson, Portage Junior League	4 Rainbow Trail Elmira 879-6042	Act as volunteer tutors, aides and resource persons for local schools

4. Certain basic information is required in compiling and using a resource inventory for any educational program. Since most educational resources are identified by the individuals, agencies, or organizations who provide them, the basic information should include the name of the resource person(s) to be contacted. Additional essential information will include:

   - title or position of the resource contact person
   - a short, concise description of the specific resource or supportive service that is available
   - location (address) of the resource contact person's office or business
   - phone number of resource contact person

5. While developing the Inventory it is important to keep in mind the information needs of those who will use it. The primary user will likely be yourself and the other individuals who are assisting in its development. In addition, however, it may be a useful tool for counselors of various special needs learners who may wish to solicit outside help in work adjustment or vocational counseling for individual students. Other teachers may also find the Inventory helpful in locating specific resources to assist with their career education instruction.

6. When individuals, agencies, or organizations are contacted in the process of developing the Resource Inventory, consideration should be given to involving such persons in a program advisory capacity. You may wish to invite selected individuals to serve as members of the proposed, or an existing program advisory committee. Information pertaining to the organization and use of advisory committees is presented in the following inservice experience (III.2).

7. Existing advisory committees are an excellent place to begin the search for community resources. Since one of the recognized functions of such advisory committees is to coordinate community resources, they can frequently provide several excellent suggestions and leads to locating specific resource persons and services.

8. Several different types of school resources should be considered. Often educators are unfamiliar with the resources in their own school district which can be tapped to assist special needs learners. It is helpful to review a directory of school district personnel to gain an overview of the different types of professionals who are employed either full or part time by your district. Individuals representing

the following general resource categories should be considered in your inventory of school resources.

- Specific Career-related Courses
  (Instructors or aides who teach courses in closely-related occupational programs)

- Special/Supportive Instruction
  (Classroom teachers and aides who work exclusively with students having learning, behavioral, or physical problems)

- Special/Supportive Services
  (Reading specialists, therapists, bilinguists, interpreters, mobility consultants, and others)

- Counseling
  (Regular, vocational, or work adjustment counselors)

- Cooperative Work Experience
  (Cooperative work training, prevocational, or work-study coordinators)

- Other School Resources
  (Administrators, job placement coordinators, instructional materials specialists, etc.)

9. Prior to identifying community resources you should attempt to locate and review any community resource directories which may already have been prepared. The United Way and similar social service agencies usually have compiled directories of special services that are available from various organizations and agencies in the community. Before adding these resources to your inventory be sure to verify that they are currently available, and that the names of contact persons, phone numbers, and other information is accurate.

10. In addition to school resources, a number of different community resources should be studied, and included in the Inventory.

- Federal and state agencies - Among the several federal and state agencies with regional or local offices that provide various supportive services for special needs learners are the following:

  Federal Agencies

  Vocational Rehabilitation
  Employment Service
  Comprehensive Employment & Training Act (CETA) Administration
  Social Security Administration
  JOBS - National Alliance of Businessmen
  Job Corps
  National Youth Corps
  Community Action Program
  Veterans Administration
  Bureau of Indian Affairs
  Immigration and Naturalization Services

State Agencies

Mental Health Agency
State agency or school for the blind
State agency or school for the deaf
Public health agency
Family service agency
Department of welfare
Governor's Committee for Employment of the Handicapped

- Community agencies or organizations - Numerous services and resources are available from such sources as:

  Chamber of Commerce
  Mental Health Association
  Mental Retardation Association
  Crippled Children's Society
  Goodwill Industries
  YMCA/YWCA
  Opportunities Industrialization Centers (O.I.C.)

- Business, industry, and labor organizations frequently provide or sponsor specialized training programs for individuals with special needs. They also provide such resources as field trips, career speakers or classroom presentations, plus occupational and instructional information on various careers, career clusters, or industries.

- Citizen and Special Interest Groups, in addition to civic organizations such as Lions, Kiwanis, Rotary, and Elks, frequently offer special services or assistance. Certain special interest groups contribute in unique ways to educational programs for the special needs learner. These include:

  National Association for the Advancement of Colored People
  Congress of Racial Equality
  Urban League
  American Indian Education Association
  Indian Tribal Councils
  League of United Latin American Citizens

11. These and other community resources may need to be further described. If more space or information is needed to describe the resource, it can be recorded on index cards for quick retrieval. These resource description cards can be kept in a central file for use by the instructional team. Two examples of such community resource data cards are provided on the following page.

[RESOURCE MATERIAL: Community Resource Data Cards, Form III.1.2]

12. Once the Resource Inventory is compiled, administrators may wish to duplicate it and distribute to the appropriate staff.

13. Keeping the Resource Inventory's information accurate and up-to-date is important. A system should be worked out for periodic review and updating of the data, and distribution of revised versions of the inventory or directory to all users.

COMMUNITY RESOURCE DATA CARDS

Instructional Resources

CAREER-RELATED INSTRUCTION RESOURCE

Career Cluster/Occupation: Commercial Foods

Name of Resource Person: Karl Williams

Title: Pastry chef Address: 29 Main Street

Phone: 626-6642 Portage

Appropriate for (students, grade level, etc.): 9th & 10th grade commercial foods, home economics

Type of Resource (check all that are appropriate)

- ✓ Field trip
- ___ Classroom consultant
- ___ Instructional materials
- ✓ Instructional content resource
- ___ Speaker
- ___ Individual student tutor
- ✓ Sponsor of short term work experiences

Detailed description of resource: Good explanation of baking procedure and kitchen management. Excellent support with students.

Service Resources

SUPPORTIVE SERVICE RESOURCE

Type of service:

- ✓ Student assistance
- ___ Parent/family assistance
- ___ School/teacher assistance
- ___ Other (describe): _____

Source of service (Name of agency/organization): Youth Hot Line

Name of contact person: Tom Anderson

Address: 6 Temple Court Phone: 626-1101

Portage Office hours: 10-12; 4-10

Record previous contacts or referrals below:

Date	Student	Action
1/14/76	Mary	helped work out family problem
3/18/76	Joe	referral to Job Corps

SPECIAL NEEDS RESOURCE INVENTORY

Program: _____

District: _____ School(s): _____ Developers: _____

Date: _____

SCHOOL RESOURCES

	Resource Contact Person	Title or Responsibility	Location and Phone	Description of Specific Resource or Service
Career-Related Instruction				
Special/ Supportive Instruction				
Special/ Supportive Services				
Counseling				
Cooperative Work Experience/Work Study				
Instructional Media and Materials				
Other School Resources				

Program: _____

COMMUNITY RESOURCES

	Resource Contact Person	Title or Responsibility	Location and Phone	Description of Specific Resource or Service
Federal/state Agency Resources				
Community Agencies/ Organizations				
Business/ Industry/ Labor Organizations				
Citizen/ Special Interest Groups				
Other Communities Resources				

COMMUNITY RESOURCE DATA CARDS

Instructional Resources

CAREER-RELATED INSTRUCTION RESOURCE

Career Cluster/Occupation: _____

Name of Resource Person: _____

Title: _____ Address: _____

Phone: _____ _____

Appropriate for (students, grade level, etc.): _____

_____

Type of Resource (check all that are appropriate)

___ Field trip
___ Classroom consultant
___ Instructional materials
___ Instructional content resource
___ Speaker
___ Individual student tutor
___ Sponsor of short term work experiences

Detailed description of resource: _____

_____

_____

_____

Service Resources

SUPPORTIVE SERVICE RESOURCE

Type of service:

___ Student assistance
___ Parent/family assistance
___ School/teacher assistance
___ Other (describe): _____

_____

Source of service (Name of agency/ organization):

_____

_____

Name of contact person: _____

Address: _____ Phone: _____

_____ Office hours: _____

Record previous contacts or referrals below:

Date	Student	Action

Self-Check Evaluation

Inservice Experience III.1: Developing a Special Needs Resource Inventory

Directions: Now that you have compiled a resource inventory or set of resource cards it is time to evaluate your performance. Rate your completed Special Needs Resource Inventory or Cards on each of the following terms by circling the appropriate number in the three-point scale. Expand or revise the Resource Inventory or Card Index as needed following this evaluation if you rated your product below a 3 on any of the items.

1.	Poorly organized	1	2	3	Well organized
2.	Incomplete information for the identified school resources	1	2	3	Complete information provided for the identified school resources
3.	Incomplete information for the identified community resources	1	2	3	Complete information provided for the identified community resources
4.	Unclear descriptions of resources/services	1	2	3	Clear descriptions of resources/services
5.	Incomplete inventory of available school resources	1	2	3	Comprehensive inclusion of all available school resources
6.	Incomplete inventory of available community resources	1	2	3	Comprehensive inclusion of all available community resources

Comments:

Suggestions for modification of the Special Needs Resource Inventory:

INSERVICE EXPERIENCE III.2:

ESTABLISHING AND/OR USING A SPECIAL NEEDS ADVISORY COMMITTEE

Advisory committees or councils play a functional and highly important role in identifying resources as well as overall program operation. For a number of years, industry-education committees have been productive and beneficial in serving the needs of teachers, administrators, and students in occupational programs. Citizens' advisory committees have also been effectively used in other school programs, as well as governmental and community agencies serving individuals with special needs.

With the onset of career education, the use of educational advisory committees has become increasingly popular. Advisory committees can be effectively used to support the cooperative instructional team in any or all of the following functions:

1. Identify and coordinate the use of various community resources for the instructional program.
2. Provide advice on the appropriateness of instructional content.
3. Review and provide recommendations on instructional materials, facilities, and equipment.
4. Assist with placement of students in cooperative work experience and full-time employment positions.
5. Develop and sponsor community public relations programs.
6. Coordinate manpower need, and follow-up surveys to collect pertinent information.
7. Review and evaluate the total special needs program periodically.

A number of different types of advisory committees can be used. Depending upon the local situation, it may be appropriate to consider:

1. Using existing career, occupational, or special education advisory councils, or subcommittees of these councils.

2. Forming a joint advisory committee from existing career, occupational, or special education advisory councils.

3. Forming a new advisory council representing the interests of the special needs instructional team, employers, agencies (governmental and community), students, parents, and representatives of the special needs community.

4. Expanding the role of child study teams (individual student planning committees) to include advisement relative to planning a special needs learners' program of occupational education.

Guidelines and Suggestions

The following general guidelines and suggestions will be helpful in determining the specific need for, and establishing a functional program advisory committee.

1. Determine the type of advisory committee needed in your local program situation. Specifically, what role, function, and purpose can an advisory committee provide in your program?

2. Assess any existing advisory committees to determine whether or not they can fulfill the role, function, and purpose you previously identified.

3. Decide whether to: (1) initiate a new advisory committee, or (2) request a joint advisory committee using representatives from existing committees, or (3) utilize an existing advisory committee in the areas of occupational and/or special education.

4. If necessary, work with administrative personnel and other members of the cooperative team to formulate a proposed school board endorsement for the new or joint advisory committee.

/RESOURCE MATERIAL: *Sample School Board Endorsement for A Special Needs Advisory Committee, Form III.2.1*/

Sample School Board Endorsement for a

Special Needs Advisory Committee*

The Board of Education of _____ on this _____th day of _____, 19_____, authorizes the establishment of a continuing committee to be known as "The Special Needs Advisory Council." This council is to be organized and conducted under procedures to be proposed by the superintendent of schools after receiving advice from the school staff and other suitable consultants and upon approval by the Board of Education.

The advisory council is not regarded as a substitute for any other form of citizen participation in school affairs. It is intended to supplement and stimulate other types of citizen participation.

The purpose of the special needs advisory council will be to serve as an arm of the Board of Education by providing advice and assistance to the board, as well as to the administrators, teachers, and students in the program.

The Board of Education reserves the right to dissolve the citizens advisory council at any time and for any reason.

In authorizing the development of this advisory council, the Board of Education pledges complete cooperation in the council's work. The citizens advisory council will be expected to operate within the guidelines set forth.

---

*Adapted from Hofstrand, R. K. and Phipps, L. J. "Advisory Councils for Education: A Handbook," Urbana: Rurban Educational Development Laboratory, College of Education, University of Illinois, 1971. p. 33.

5. Once administrative and school board endorsement is obtained for the proposed committee, several planning tasks need to be completed:

- Identify and select prospective advisory committee members to serve on the committee using some objective selection criteria, such as: expressed interest in serving, relevant professional background, other relevant background experiences, involvement in or relationship to occupational or special education.

- Select a diverse and comprehensive advisory committee membership composed of representatives from the following groups:

  a. teachers serving on the cooperative instructional team

  b. supportive service personnel, e.g., counselors, diagnosticians, or social workers

  c. employers or prospective employers or special needs learners

  d. personnel from state and federal agencies serving the special needs population

  e. personnel from community agencies serving the special needs population

  f. parents of special needs learners

  g. past or present students

- Prepare and distribute a letter of invitation to serve on the advisory committee similar to the one illustrated on Form III.2.2.

  /RESOURCE MATERIAL: *Sample Advisory Committee Appointment Letter, Form III.2.2*/

- Once the committee membership is finalized, prepare and distribute an agenda for the initial organizational meeting along with a roster of the committee members.

  /RESOURCE MATERIAL: *Initial Advisory Committee Meeting Agenda, Form III.2.3*/

  /RESOURCE MATERIAL: *Sample Roster of A Special Needs Advisory Committee, Form III.2.4*/

6. If an advisory committee is to be helpful and productive it should outline a program of work which covers a substantial period of time. Those advisory committees which tend to be most effective, map out the areas of the program they feel need to be examined, and develop a coordinated plan for their advisement activities. An annual program of work is a helpful technique for developing a long-range plan.

/RESOURCE MATERIAL: Annual Program of Work, Form III.2.5/

Form III.2.2

SAMPLE ADVISORY COMMITTEE APPOINTMENT LETTER

Dear _____:

The Board of Education of _____ takes great pleasure in welcoming you as a member of our working team. Your willingness to serve a two year term on the Special Needs Advisory Committee is greatly appreciated.

Your active interest and participation in this committee's activities will undoubtedly be of great benefit to the current and future students served in this program. Your background and experience will be influential in helping us to improve and expand our special needs program and services.

The enclosed agenda will provide you with the date, time, and location of the next committee meeting. Please review the proposed agenda and become acquainted with the roster of committee members. If you cannot attend or have any questions please contact the committee secretary.

_____

_____

Phone _____

Once again, thank you for your interest in our special needs program.

Cordially,

Superintendent

Enclosures

cc: _____, Secretary
Special Needs Advisory Committee

INITIAL ADVISORY COMMITTEE MEETING AGENDA

A G E N D A

* * *

Special Needs Advisory Committee Meeting

Date
Location
Time

7:30 p.m. Introductions of all members (administrator or teacher serves as temporary chairman)

Welcome and the special needs advisory committee charge (Superintendent or Chairman of School Board)

Overview of the program (temporary chairman)

Discussion of the advisory committee concept, operational guidelines and development of the program of work

Annual program of work form distributed and discussion of tentative area of concern (see Form 1.36)

Discuss agenda for next meeting

Set date, time, and location for next meeting

Adjournment

Form III.2.4

SAMPLE ROSTER OF A

SPECIAL NEEDS ADVISORY COMMITTEE

Branch and Calhoun Area Vocational Centers
Battle Creek, Michigan

David Lockwood
Special Education Teacher
Bronson High School
Bronson, MI 49028

Donald MacKenzie
Assistant Principal
Legg Junior High School
Coldwater, MI 49036

Mattie J. Spruill - Parent
173 Homecrest
Battle Creek, MI 49017

Herb Adams
L.E.A.P.
Community Services Bldg.
Battle Creek, MI 49017
962-5139

Anna Busick - Parent
174 E. North
Battle Creek, MI 49017
965-8053

Margaret Roderick
EMH Counselor
Battle Creek Central High School
100 W. Van Buren Street
Battle Creek, MI 49017
962-5581

Richard Powell, Counselor
Albion High School
225 Watson Street
Albion, MI 49224
1-517-629-9421

Delores Diggs
Manpower Programs
County Building
Marshall, MI 49068
781-9811

Mr. Dave Sootsman
Chairman of Committee
Michigan Employment
Security Commission
171 W. Van Buren
Battle Creek, MI 49017

Vanessa Baklund - Parent
18504 - 23 Mile Road
Marshall, MI 49068
781-4658

Don Lacey - Student
Calhoun Area Vocational Center
Building Maintenance Program

John Dygert
Director of Vocational Education
Branch Area Career Center
Coldwater, MI 49036

Ken Strong
Director of Special Needs Program
Branch Area Career Center
Coldwater, MI 49036

Jack Faulkner
Branch Area Career Center
Coldwater, MI 49036

ANNUAL PROGRAM OF WORK, 197_-_

Special Needs Advisory Committee

Sandman Community Schools

Area of Concern	Dates for Committee Review/Discussion	Committee Activities	Recommendations & Suggested Solutions
Employment opportunities for graduates	Fall meeting	Reviewed a recent regional manpower survey	Recommend opening the nurse aide program to more special needs students
		Interviewed local employment agency representative at meeting	Possibility of part-time work for some students at the sheltered workshop should be examined
		Discussed employment outlook with other area employers	
Status of Drop-outs	Winter meeting	Interviewed 2 recent drop-outs at meeting	Closer communication with parents of potential drop-outs is recommended. Overall, however, the program does an excellent job of encouraging special needs students to stay in school
		Discussed problem with parents of drop-outs	
		Met with juvenile probation officer	
Availability and coordination of community services	Early Spring meeting	Discussed available services with VRS & Employment Service representative at meeting	Counselors and administrators should keep in closer touch with community service agencies by exchanging information such as memos, brochures, placement information, etc. on a regular, monthly basis
Appropriateness of instructional objectives	Late Spring meeting	Reviewed instructional goal statements for all programs before meeting	Specific recommendations made to individual instructors that certain goals should be deleted and others added. Also suggested a greater overall emphasis on developing basic skills in special needs students. Instructors need released time to modify and improve their instructional objectives
		Reviewed instructional objectives from state office of education	

Self-Check Evaluation

Inservice Experience III.2: Establishing and/or Using a Special Needs Advisory Committee

Directions: In the spaces below, check or circle the appropriate responses describing your actions for this inservice experience. If you can respond positively to questions 2-9, you have successfully completed this experience.

1. Type of Advisory Council used/formed in the inservice experience: *(check one response)*

   _____ 1. Existing career, occupational, or special education advisory committee

   _____ 2. Joint committee formed from existing committees

   _____ 3. New occupational-special or special needs advisory committee

   _____ 4. Expanded child study team

	Circle one response	
2. Advisory committee members selected or designated?	*yes*	*no*
3. Advisory committee representative of the appropriate groups (educators, businessmen, agency personnel, parents and students)?	*yes*	*no*
4. Appropriate endorsement for advisory committee obtained?	*yes*	*no*
5. Agenda prepared and distributed prior to initial meeting?	*yes*	*no*
6. All committee members appointed by letter or informed of their proposed involvement?	*yes*	*no*
7. Roster of committee members prepared and distributed prior to initial meeting?	*yes*	*no*
8. Initial meeting of special needs advisory committee held?	*yes*	*no*

9. Summarize below the outcomes, actions taken, or recommendations formulated at the meeting. Also list any plans for additional meetings?

_____

_____

_____

Resource Bibliography

The following are specific references of reading materials which can be reviewed along with each inservice experience activity. The materials found in these readings expand upon the ideas, guidelines, and suggestions provided for each of the inservice experiences.

Inservice Experience III.1: Developing a Special Needs Resource Inventory

Phipps, L. J., et al. CRU System: A Manual for Community Resource Utilization. Urbana: University of Illinois, 1974.

State of Illinois. "Occupational Education for Disadvantaged and Handicapped Persons." Springfield: Division of Vocational and Technical Education, 1973. Bulletin No. 40-1273.

U.S. Department of Health, Education, and Welfare. Suggested Utilization of Resources and Guide for Expenditures. Washington, D. C.: Government Printing Office, 1972.

Vocational Education/Special Education Project. "Program Guide." Mt. Pleasant: Central Michigan University, 1973.

Inservice Experience III.2: Establishing and/or Using a Special Needs Advisory Committee

American Vocational Association. The Advisory Committee and Vocational Education. Washington, D. C.: American Vocational Association, 1969.

Burt, S. M. Industry and Vocational-Technical Education. New York: McGraw-Hill Book Company, 1967.

Cochran, L. H., Phelps, L. A., and Skupin, J. F. Guide for Effective Utilization of Advisory Committees. Mt. Pleasant: Central Michigan University, 1974.

Hofstrand, R. K. and Phipps, L. J. "Advisory Councils for Education: A Handbook." Urbana: Rurban Educational Development Laboratory, College of Education, University of Illinois, 1971.

State of Illinois. "Advisory Committee Member." Springfield: Division of Vocational and Technical Education, Illinois Office of Education, Bulletin No. 29-672 (undated).

M O D U L E 4:

CLUSTER AND CONTENT ANALYSIS

The instructional content in occupational programs is generally based on the competencies needed to explore occupations or prepare for employment. Exploration competencies (such as recognizing the variety of occupations in the allied health fields) are usually emphasized at the junior high or middle school level. Specific preparation competencies (such as charting a patient's vital signs) are usually taught at the high school or post-secondary level. At both levels teachers must decide what instructional content is appropriate and essential for preparing students so they will make a successful transition from school to work.

This module will present and discuss several techniques for analyzing clusters of occupations to determine instructional content which is appropriate for special needs learners.

Overview

In the past educators have used a variety of processes to make decisions about the need for new occupational programs or the need for improvements and changes in course content. Recently, the career education movement has suggested that clusters of occupations can be used to develop educational programs which will have immediate relevancy for the world of work. Clusters of occupations used in this curriculum development approach usually reflect the major industries found within our society, such as manufacturing, health, or public service.

Curriculum and instructional development is focusing closely on the use of occupational clusters because it reflects several emerging educational needs. These needs include:

1. The need to provide a greater range of occupational choices.
2. The need to provide individuals with occupational versatility and mobility in occupations.
3. The need to more adequately meet the needs of those youth who will not become college graduates.
4. The need for individuals to adapt easily to the on-going occupational, technological, social, cultural, psychological, and economic changes in the workplace and society.

The cluster-based curriculum approach offers several positive alternatives for both the instructor and the learner. Four benefits to be derived by using the cluster-based approach include:

1. The common elements of learning experiences which are provided in a cluster curriculum prepares the learner for a cluster of related occupations, thus insuring some mobility among occupations within the cluster.

2. A curriculum which is based on the cluster concept has more relevance for learners interested in not just one, but a variety of occupations. Occupational choice can be postponed until the time of entry into the world of work.

3. When students are involved in studying common job skills such as measuring or reading specification charts, the distinctions between occupational skills and academic instruction in math or reading become meaningful.

4. The study of clusters of occupations provides a basis for examining several other aspects of work. The social, managerial, and other human relations/interactions aspects of work can be studied on a cluster basis as well.

This module includes two inservice experiences related to occupations for special needs learners: identifying career clusters and conducting a career cluster analysis. The occupations identified in the first experience are then analyzed in the second experience. By completing both inservice experiences, you will identify occupations for which eventual employment is feasible, as well as identify the knowledges, skills, and basic competencies needed to obtain employment.

Ron and Sylvia: A Case Study

Ron and Sylvia teach at Farmington High School which is located in a city of approximately 100,000 population in the midwest. Ron teaches the horticulture program while Sylvia is a teacher of the educable mentally handicapped (EMH). In the past year three EMH students were placed in Ron's class, which was a new experience for Ron who is a second year teacher.

This year the curriculum committee at Farmington High School has been charged with the task of reviewing and updating the courses in several departments. Both Ron and Sylvia represent their departments on the committee and are vitally interested in revision of their curriculum.

Since they have worked together before and feel that both of their programs can be improved to more effectively serve special needs students, they decided to work as a team. They felt strongly that job and independent living skills should be the basis for the curriculum in their programs.

The Farmington school board had recently adopted a policy statement endorsing career education, and asked the curriculum committees in all schools in the district to consider adopting the career cluster concept when they were re-designing their curricula and courses.

Initially, Ron and Sylvia reviewed the different occupational clusters which had been developed and published by their state office of education, as well as other school districts. Because Ron teaches all of the horticulture classes, they decided to identify and analyze the occupations related to the field of horticulture. Although they focused their efforts on the horticulture cluster, they considered this cluster as part of a larger cluster entitled Agri-Business and Natural Resources Occupations. This larger cluster includes the agricultural mechanics and forestry programs which are also taught at other buildings in the school district.

They began their work by identifying all of the occupations which are included in the horticulture program. They completed a review on the Dictionary of Occupational Titles to identify job titles in such areas as landscaping, floriculture, and nursery work. After a couple of hours they identified about 25 occupations which are unskilled, entry-level jobs as well as skilled occupations. When selecting the job titles they were primarily concerned about: (1) the employment outlook, (2) identifying specialized occupations that would be uniquely appropriate for certain special needs learners (such as blind or deaf persons), and (3) the career interests of their students.

Once they had identified the occupations, they proceeded to analyze several of them to identify the specific knowledges, skills, and competencies required. By reviewing the Dictionary of Occupational Titles and other curriculum guides they were able to develop a list of job tasks which are performed by workers in the horticulture cluster. Once the list of tasks was compiled they asked the advisory committee for the agriculture program, which was composed of employers, to review the list. During one of the committee meetings the employers were able to provide feedback indicating which job tasks were most important for employment. Also, during their two inservice days they visited several local floral shops, nurseries, and landscaping businesses to observe workers in the horticulture occupations they were analyzing. (This procedure for identifying clusters and occupations is outlined in Inservice Experience IV.1).

Their final list of tasks included 35 major tasks such as preparing soil mixtures, recognizing plants, and applying soil mixtures. For each task they listed the knowledges, skills, and basic competencies that were needed. As they worked on this task analysis they soon realized that the skills and knowledges required for employment are generally the same for all learners. Their discussions with employers and their work observations made it clear that a person with special needs must have a saleable job skill to be employed. As they got further into analyzing each task they were able to identify a number of basic skills and concepts (such as reading a rule or telephone skills) that also were essential. Sylvia recognized these as skills and concepts which should be emphasized in her curriculum. When they were finished they had outlined the skills, knowledges, and basic skills and concepts included in each of the 35 tasks. (Inservice Experience IV.2 includes several procedures, suggestions, and forms for conducting this type of an analysis).

Although this whole process took nearly nine months to complete, Ron and Sylvia felt quite satisfied with it. As one of them commented, "This has been a very useful project. Not only will our curriculum be more relevant, but I am more familiar with the jobs which are available and the job interests my students have."

Goals

Condition: Given the responsibility to initiate and develop career-oriented educational experiences for special needs learners, upon completion of this module the inservice participant will:

Performance Competencies:

1. Identify career clusters and related instructional programs.
2. Conduct a career cluster analysis to determine the knowledges, skills, and basic competencies required for employment.

Inservice Experience Descriptions

As indicated earlier, two inservice experiences are included in this module.

The following paragraphs describe more completely the inservice experiences. Under the direction of your inservice director, you should complete both of these experiences in a manner which will make them relevant and pertinent to "your" program.

Inservice Experience IV.1
IDENTIFYING CAREER CLUSTERS

The first step in curriculum analysis is identifying the career cluster or clusters for which instruction will be provided. This experience will systematically identify those career clusters which are appropriate for existing or needed instructional programs. The product of this experience

will be the identification of at least one cluster of occupations which is consistent with an existing or planned instructional program. This cluster of occupations will provide a framework for analyzing the tasks required for employment.

Inservice Experience IV.2
CONDUCTING A CAREER CLUSTER ANALYSIS

A career cluster analysis is similar to a job or task analysis. The only difference is that it examines the common elements of a cluster of occupations, as opposed to a single occupation or task. It is essentially an analysis to determine the appropriate instructional content for a cluster-based program or course. The skills, knowledges, and basic competencies which are identified are incorporated in individualized instructional plans for special needs learners. The product of this experience is a detailed instructional analysis listing the essential knowledges, skills, and competencies required for entry employment in the cluster.

Inservice Experience Selector

Following consultation with the inservice director, I (we) will complete both of the inservice experiences in Module 4: Cluster and Content Analysis:

_____ Inservice Experiences IV.1 and IV.2:
Identifying Career Clusters
Conducting a Career Cluster Analysis

Date: _____

School: _____

Inservice Director:

_____

Participant Name(s):

_____

_____

_____

_____

INSERVICE EXPERIENCE IV.1:

IDENTIFYING CAREER CLUSTERS

The concept of clustering occupations into families or groups has been around for a good many years. It's popularity has increased considerably, however, with the advent of the career education movement in the public schools of our nation.

Career education has suggested the use of career clusters as a basic framework for curriculum development at both the elementary and secondary level. Clusters or families of closely related occupations serve as a basis for deriving curricula which are oriented toward providing career awareness, exploration, and preparation. The normal progression of career development suggests that learning experiences focused on career awareness occur at the elementary level, and that exploration and preparation experiences take place at the junior and senior high school levels. Evans (1975) has noted that career development is a dynamic process with awareness and exploration experiences continuing to reoccur at the junior and senior high school levels. The need to articulate and coordinate career education at several levels has brought about a renewed interest in using the career cluster approach (Kenneke, et al., 1973).

A variety of different schemes for clustering have been developed and introduced in recent years. Some of these schemes have been developed to facilitate curriculum development while others have been oriented toward serving a career counseling or guidance purpose. Most of the clustering schemes utilized for curriculum development have used the major industries as the criteria for clustering. That is, clusters which represent the different major industries found in our economic system, such as construction,

health, and manufacturing. In recent years the most widely-used clustering scheme has been the one proposed by the U.S. Office of Education. The U.S.O.E. Career Clusters and an analysis of the Business and Office Occupations cluster is presented on Form IV.1.1 on the following page.

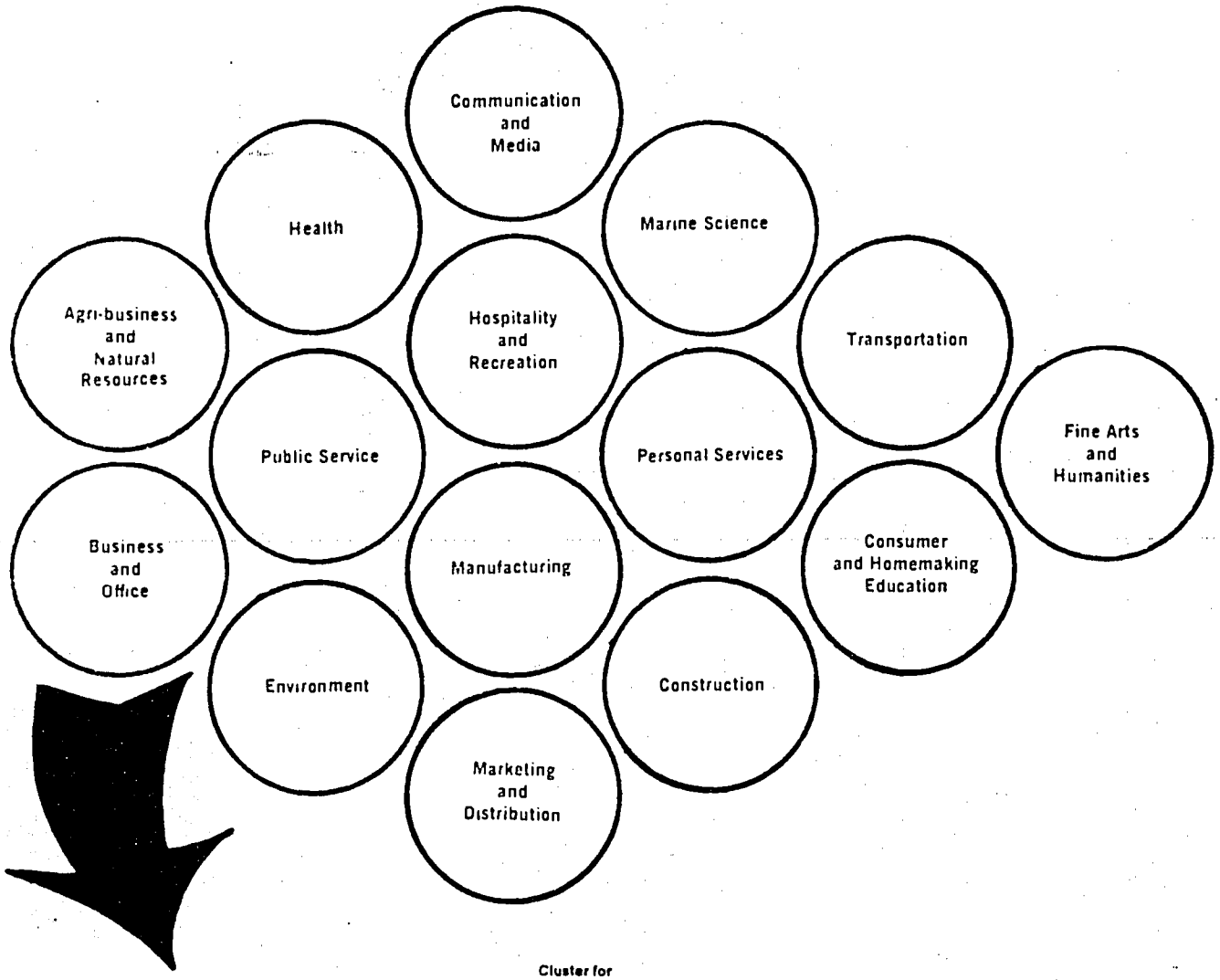
[RESOURCE MATERIAL: U.S. Office of Education Career Clusters, Form IV.1.1]

Specificity of Career Clusters

The specificity or breadth of an industry-based career cluster is an important consideration in curriculum development. Career clusters are more broad in scope (include a greater variety of occupations) at the elementary school level than they do at the secondary level. Transportation is an appropriate cluster for serving the career awareness function at the elementary level. At the secondary level, however, where the focus is exploration and preparation for a career, the broad cluster of transportation has to be subdivided into a number of more specific clusters such as ground transportation occupations, air transportation occupations, and so on.

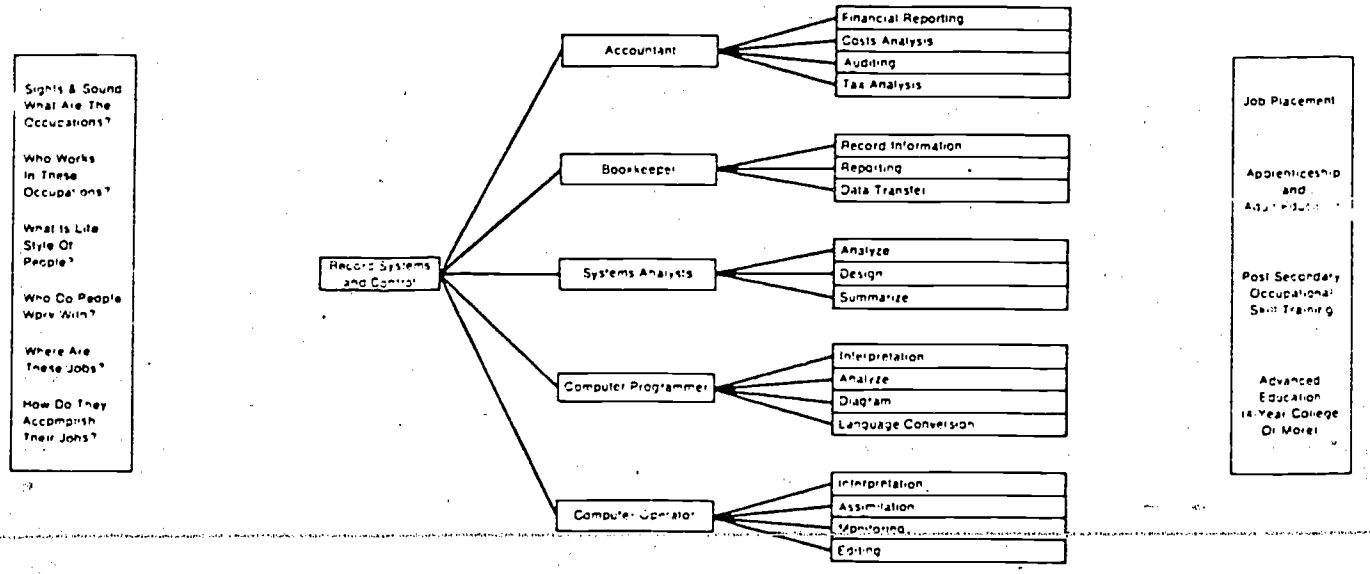
It is fairly easy to recognize that clusters become increasingly more specific (focusing on fewer occupations) as the curriculum objective moves away from career awareness and toward preparing students for career entry. At the late secondary level (grades 11 and 12) most clusters are represented as occupational education programs such as auto mechanics, small engine repair, and auto body repair -- all of which are part of the transportation cluster discussed earlier.

U.S. OFFICE OF EDUCATION CLUSTERS



Cluster for
BUSINESS AND OFFICE OCCUPATIONS
United States Office of Education (U.S.O.E.)

Elementary Education	Pre-Vocational and Exploratory	Skill Development and Related Knowledge	Options After Grade 12
1-2-3-4-5-6	7-8-9	10-11-12	



Cluster Identification Format

It is possible to use a number of different approaches in identifying and arranging occupations in one or more career clusters. The approach used here is similar to an approach developed at Ohio State (Frantz, 1973). The format for specifying clusters using this approach is presented in the form of a matrix, and is displayed in Form IV.1.2.

This format can be used to identify clusters of occupations for either career exploration or career preparation programs at the secondary level. The major difference is that the number of occupational or job titles which are identified on the form is usually greater in a career exploration cluster. The level occupations identified (from unskilled to highly skilled) is usually greater in a career exploration cluster also. More occupations are usually listed in an exploration cluster, since the instructional goals are prevocational or exploratory in nature. Fewer occupations are identified for a career preparation cluster since the instructional objective here is to prepare the individual for job entry. It should also be noted that the titles of career preparation clusters are more specific than titles of career exploration clusters. Form IV.1.3 illustrates the specificity of several different career exploration and preparation cluster titles.

Guidelines and Suggestions

The following guidelines and suggestions should be followed in completing the task of identifying career clusters using the proposed format.

1. The suggested Cluster Identification Form (Form IV.1.2) is used to specify or identify *one* career cluster. If the cooperative instructional team with whom you are working is focusing on more than one area of occupational instruction, multiple Cluster Identification Forms will have to be used.

   [*RESOURCE MATERIAL: Cluster Identification Form Form IV.1.2*]

CLUSTER IDENTIFICATION FORM

Check:
☐ Exploration Cluster
☑ Preparation Cluster

Cluster-Related Instructional Areas (Course titles and/or major instructional units)	CAREER CLUSTER: Ornamental Horticulture Occupations			
Landscaping	Groundskeeper		Landscape Gardner Landscape Designer	Landscape Architect
Floriculture		Flower Grower	Floral Designer	Florist
Abroriculture	Tree-Surgeon Helper		Tree-Trimming Foreman Tree Surgeon	Arborist
Turf Management	Greensworker	Greenskeeper Irrigation Controller	Superintendent, Greens Sod Grower Turf Supplies Salesman	Agronomist
Nursery	Laborer, Nursery Moss Handler Bagger-and Burlap Man	Salesman	Salesperson	Garden Center Manager Nursery Superintendent
Greenhouse	Greenhouse Worker		Salesperson	Greenhouse Operator/Manager
Level:	Laborer Sorter/Packer Assistant Loader Helper Attendant Worker Tender	Operator Clerk Driver Installer Assembler Aide	Craftsman Supervisor Technician Inspector Complex Operator	Middle Manager Foreman Official

COMMON CLUSTER TITLES

Career Exploration Clusters	Career Preparation Clusters
Transportation Occupations	Automotive Service Occupations Auto-Body Repair Occupations Recreational Vehicle Service Occupations Service Station Occupations . . . . . .
Office and Business Occupations	Accounting Occupations General Office Clerk Occupations Mail and Postal Occupations Secretarial Occupations Office Machine Occupations . . . . . .
Health Occupations	Dental Occupations Environmental Health Occupations Nursing Occupations . . . . . .
Construction Occupations	Residential Construction Occupations Building Maintenance Occupations . . . . . .
Agri-business and Natural Resources Occupations	Agricultural Mechanics Occupations Ornamental Horticulture Occupations Forestry Occupations . . . . . .
Personal and Public Service Occupations	Food Production and Service Occupations Clothing Production and Service Occupations . . . . . .

2. *Identifying the Cluster*. As suggested earlier, the specific title(s) of the career clusters which are identified will depend upon the objectives of the instructional program. Broad cluster titles, such as Transportation Occupations or Construction Occupations, are appropriate for junior high, exploratory programs; while more specific titles, such as auto service occupations or building maintenance occupations, are suited to senior high, career preparation programs.

   The initially-selected title should be considered a tentative selection. After the instructional areas are specified and the occupational/job titles identified, the cluster title can be modified to accurately reflect the group of occupations for which career exploration or preparation instruction will be provided.

   In several states, specific clustering schemes are used by the State Office of Education. Such schemes are frequently designed to reflect the manpower needs of the state. They are generally used to classify occupational education programs across the state for purposes of supervision and reimbursement. The clustering system used in Illinois is presented in Form IV.1.4 on the following page. Before proceeding further, you should be aware of any state or local curriculum clustering models that may already be in use. You may find that the existing schemes may or may not fit your specific instructional development needs.

   [*RESOURCE MATERIAL: Illinois Cluster System, Form IV.1.4*]

3. *Identifying Instructional Areas*. The second task in identifying a career cluster involves identifying the related instructional areas. The existing career-related courses or major units of a course should be listed in the left column of the Cluster Identification Form. Form IV.1.2 provides an example of the major instructional units in the Ornamental Horticulture Occupations cluster.

   [*RESOURCE MATERIAL: Cluster Identification Form, Form IV.1.2*]

4. *Selecting Occupations*. The third task is the identification and selection of occupations making up the cluster(s). Each of the boxes on the Cluster Identification Form provides a space for one or more occupational (job) titles to be listed. The most comprehensive and accessible source of job titles is the Dictionary of Occupational Titles (D.O.T.) which has been published by the U.S. Department of Labor. The two volumes of the Third Edition of the D.O.T. provide a great deal of descriptive information for some 22,000 occupations. Occupations which may be particularly appropriate for special needs learners can be classified at four levels: unskilled, semiskilled, skilled, and highly skilled. General job title descriptors such as laborer, operator, and foreman are provided for each level along the bottom margin of the Cluster Identification Form. These descriptors can be used as general guides in

Illinois Cluster System

CLUSTER TITLES

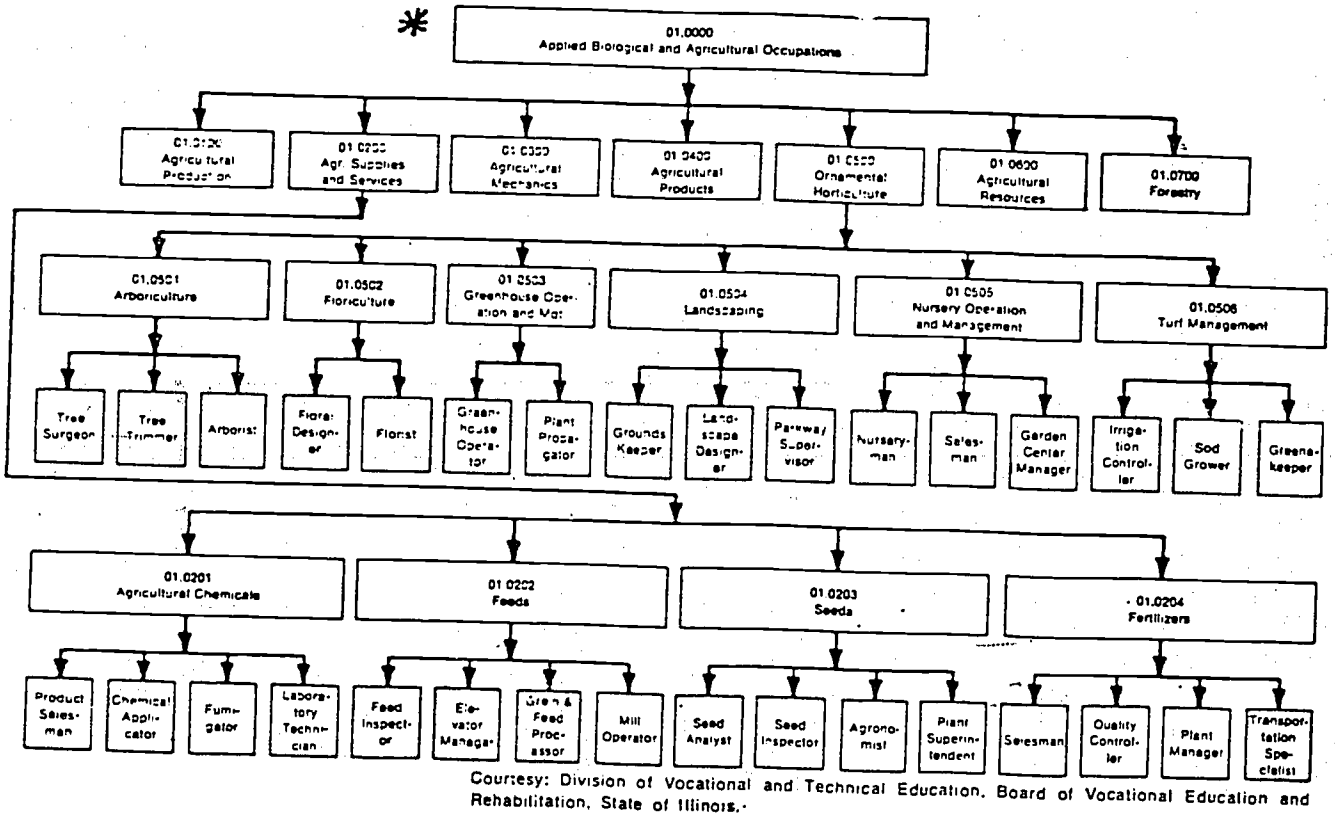
*Applied Biological and Agricultural Occupations

Business, Marketing, and Management Occupations

Health Occupations

Industrial Oriented Occupations

Personal and Public Service Occupations



Courtesy: Division of Vocational and Technical Education, Board of Vocational Education and Rehabilitation, State of Illinois.

determining the level of each occupation to be included in the cluster. These levels can be determined by using the D.O.T. to identify the degree of involvement the occupation requires relative to using data, interacting with people, or manipulating things (physical objects). Ratings of the data, people, and things involvement for each occupation are given in the code number (4th, 5th, and 6th digit positions) of each occupation found in the D.O.T. An index of each of these ratings is provided by Form IV.1.5 on the following page.

[*RESOURCE MATERIAL: Data, People, Things Hierarchies, Form IV.1.5*]

5. *Specific Considerations in Selecting Occupational Titles.* Traditionally, a number of criteria have been used in selecting occupations for which instructional programs are to be developed.

Employment Outlook. The present as well as anticipated future demand for workers trained in the cluster is a major consideration. Training people for jobs that do not exist has been a criticism of many occupational programs, and does little to improve the outlook for persons with special needs who often have employment problems even with vocational training. Recent local or regional manpower surveys, vocational program advisory committees, state departments of labor, and federal publications such as the Occupational Outlook Handbook can be helpful sources of information. Information and data describing the current supply of trained workers looking for employment in the cluster area should also be obtained.

It is unlikely that in most districts occupational and special education teachers will have the responsibility of collecting and organizing information on the employment outlook for career clusters. They should, however, carefully review the available manpower information, or request additional information from the director of occupational education or other program planning personnel, before selecting occupations which are to be analyzed for the purpose of developing instruction.

Specialized Occupations. It is important to keep in mind that often the physically handicapped are uniquely capable of entering selected specialized occupations. Specialized occupations, such as Volkswagen auto mechanics, are frequently overlooked or disregarded in manpower surveys because of the traditionally small demand for trained workers in highly specialized occupations. Even though the demand for workers may be small, it may be sufficient to absorb a few well-trained individuals with infrequently occurring handicaps such as blindness or deafness.

The Michigan School for the Blind in Lansing offers a vocational program for training Volkswagen mechanics. Because of the standardization of parts and design of the basic VW model over a number of years, blind individuals have the unique opportunity in this instance to develop and use a rather sophisticated mechanical skill. The 2-5 students who graduate from the program each year are placed in

DATA, PEOPLE, THINGS HIERARCHIES

from the Dictionary of Occupational Titles

1. Every job requires the worker to function in relation to Data, People, and Things, in varying degrees.
2. The relationships specific to Data, People, and Things can be arranged in each case from the simple to the complex in the form of a hierarchy so that, generally, each successive function can include the simpler ones and exclude the more complex functions.[8]
3. It is possible to express a job's relationship to Data, People, and Things by identifying the highest appropriate function in each hierarchy to which the job requires the worker to have a significant relationship.
4. Together, the last three digits of the code number can express the total level of complexity at which the job requires the worker to function.[9]

DATA (4th digit)		PEOPLE (5th digit)		THINGS (6th digit)	
0	Synthesizing	0	Mentoring	0	Setting-Up
1	Coordinating	1	Negotiating	1	Precision Working
2	Analyzing	2	Instructing	2	Operating-Controlling
3	Compiling	3	Supervising	3	Driving-Operating
4	Computing	4	Diverting	4	Manipulating
5	Copying	5	Persuading	5	Tending
6	Comparing	6	Speaking-Signaling	6	Feeding-Offbearing
7	No significant relationship [10]	7	Serving	7	Handling
8		8	No significant relationship [10]	8	No significant relationship [10]

dealerships throughout the state. Such successful programs for the physically handicapped do much more than fill a need for trained manpower. They contribute significantly to raising the public's expectancy and attitudes regarding the potentials of handicapped individuals.

Student Career Interests. The specific career interests of the prospective students are sometimes overlooked in planning occupational curricula. Student career interests, as well as parent career aspirations for their children have to be considered. It does little good to select occupations which do not reflect a high degree of student interest. Even though there may be a large demand for trained workers in an occupational field such as watch-making and repair, there is no guarantee that students will be interested in seeking training in that particular field. In selecting occupations for a cluster, and the cluster itself for that matter, be sure to select occupations which are appealing to the students for the purposes of both imploring different career options and preparing for career entry.

Characteristics of Special Needs Learners. In a preceding module you were required to assess and analyze the "special needs" of the learners to be served in the instructional program. Such characteristics as social skills, perceptual skills, and physical skills were examined. The learner analysis profiles completed on each of the special needs learners should be carefully reviewed and general trends noted. If, for instance, a number of special needs learners to be served in this cluster program have multiple physical impairments and are in wheelchairs, all of the occupations included in the cluster should not involve frequent physical activities such as kneeling, stooping, or walking.

One of the dangers in using the D.O.T. or any standardized job description for the purpose of identifying clusters of occupations is the lack of specific situational information. Similarly described jobs are often performed differently in different factories or businesses. It may be that one employer would be willing to re-engineer or modify a job for a physically handicapped person so that it would not involve the physical activities included in a standardized job description.

While generally the learner's mental, physical, and emotional characteristics should be considered in selecting occupations, it is equally important to be familiar with and consider the specific occupational placement possibilities for individual special needs learners in the community.

Available Programs and Resources. Clusters and the occupations therein must reflect the basic content of existing educational programs. For purposes of immediate application of this process, the resulting instruction will likely have to take place in existing programs. While cluster identification can serve to identify the

need for new occupational programs, that is not the major purpose of the activity described here. Thus, the clusters of occupations which are selected should reflect the curriculum content of those vocational or practical arts courses which are presently a part of the regular occupational program offering.

6. *Career Preparation vs. Career Exploration: A Final Note.* If the intended focus of the instructional program is career preparation, certain of these previously-mentioned considerations are more important than others. Usually the primary consideration in a career preparation cluster is the employment outlook. A cluster-based program which provides training and preparation for existing job opportunities represents a major objective of vocational education.

If, however, the instructional focus is career exploration, the major consideration will probably be student interest. The interests of students in exploring the use and potential application of different tools, materials or processes in different occupations becomes a major consideration in selecting occupations to be included in the cluster. Since exploration is the major goal, a much broader range (unskilled to highly skilled) occupations can be included, and less emphasis is placed on finding and including occupations that are particularly appropriate for certain special needs learners. An underlying objective of the career exploration program should be that the special needs learner, as well as all learners, find careers that are suited to their interests and potentials.

Check:

☐ Exploration Cluster

☐ Preparation Cluster

CLUSTER IDENTIFICATION FORM

Form IV.1.2
Reproduction Master

Cluster-Related Instructional Areas *(Course titles and/or major instructional units)*	CAREER CLUSTER:			
Level:	Laborer Assistant Helper Worker Sorter/Packer Loader Attendant Tender	Operator Driver Assembler Clerk Installer Aide	Craftsman Technician Complex Operator Supervisor Inspector	Middle Manager Foreman Official

Self-Check Evaluation

Inservice Experience IV.1: Identifying Career Clusters

Directions: Now that you have completed this inservice experience it is time to evaluate your progress. Rate your completed Cluster Identification Form on each of the following items. Circle the appropriate number on each 3-point evaluation scale. When you have completed the evaluation, be sure to expand or revise the Cluster Identification Form as suggested by the results of this evaluation.

1.	Does not define the instructional purpose of the cluster arrangement	1	2	3	Clearly defines the cluster as either an exploration or preparation cluster
2.	Cluster-related instructional areas are not identified	1	2	3	Cluster-related instructional areas are listed and identified as either course titles or major instructional units
3.	Occupational titles used do not appear to be consistent in definition and description	1	2	3	Occupational titles included are chosen from a comprehensive source, e.g., Dictionary of Occupational Titles
4.	Occupational titles are identified at only one level	1	2	3	Occupational titles are included at a variety of levels
5.	The identified occupational titles are not consistently classified by level	1	2	3	The identified occupational titles are appropriately classified by level
*6.	The occupational titles which are identified do not reflect current job openings	1	2	3	The occupations which are identified reflect occupations in which employment is currently available
7.	Occupations identified are general in nature and appropriate for all types of learners	1	2	3	Some of the occupations identified include specialized occupations which may be uniquely appropriate for certain special needs learners
8.	Occupations identified are inconsistent with learner career interests	1	2	3	Occupations identified are in line with career interests of the learners

**Appropriate only for a career preparation cluster*

9.	Occupations identified are not observable in nor relevant to the community	1	2	3	Occupations identified are observable in and relevant for the community

Comments:

Suggestions for modification of the completed Cluster Identification form:

INSERVICE EXPERIENCE IV.2

CONDUCTING A CAREER CLUSTER ANALYSIS

A career cluster analysis is a process of determining instructional content. Instructional content for the previously identified career exploration or preparation cluster(s) will be identified in this inservice experience.

A number of different systematic analysis procedures have been introduced for use in vocational and practical arts (occupational) education programs. Trade, job, and task analyses have been commonly used in vocational education, while subject field content analyses have been employed by the national curriculum projects in the practical arts areas. A career cluster analysis can be designed to draw upon the basic curriculum analysis procedures used by both fields.

The information gathered by career cluster analysis procedures can be used for a number of purposes:

1) To determine the task content of different occupations.
2) To determine differences and relationships among occupations useful for structuring occupations into career fields and career ladders.
3) To determine training programs that can be reduced, or eliminated, or that need to be created.
4) To determine the critical tasks (instructional content) that should be taught in a practical arts or vocational education program.
5) To determine the critical tasks to be included in occupational competency and certification tests.

6) To provide career counseling information to assist learners in obtaining realistic perceptions of occupations (Melching and Borcher, 1973).

The career cluster analysis process described here will focus on the purposes of identifying and analyzing relevant instructional content in a specified cluster of occupations.

The four-step career cluster analysis process described here is useful in determining curriculum content for both "regular" and special needs learners. The identification of instructional content leading to entry employment will result from the cluster analysis. Since many of the occupations performed by non-special needs individuals can be performed by special needs learners, the instructional content which is identified will be nearly the same. It will differ in one respect, however. The cluster analysis for an occupational program which will serve special needs learners should also identify the basic competencies (such as measuring or communication skills) that are required for employment in the cluster.

Guidelines and Suggestions

The guidelines and suggestions for this inservice experience are divided into four major areas--one each for the steps in the cluster analysis process:

1. Establishing a cluster analysis hierarchy.
2. Developing a task inventory.
3. Conducting an external review of the task inventory.
4. Completing a detailed instructional analysis.

Step 1. Establishing a Cluster Analysis Hierarchy

In order to analyze and define the instructional content for a cluster, a set of defined analysis levels is needed. This arrangement of different analysis levels can be referred to as a "hierarchy."

Form IV.2.2 on the following page presents an illustration of a hierarchy used in defining instructional content from a cluster of occupations. The hierarchy has three levels: cluster, task, and task elements. The previously-identified cluster of occupations (Inservice Experience IV.1) can be broken down into a number of different tasks. The tasks can be further divided into the task elements of knowledges, skills, and basic skills/ concepts.

As will be demonstrated in the following steps of this analysis, the unique aspect of this analysis format is that the tasks specified as instructional content will be common to two or more occupations within the cluster. Once the tasks are identified and listed (step 2), they will be validated by an external review source (step 3). Such external review sources as occupational advisory committees or employers can be used to review and validate the inventory of identified tasks.

Three specific task elements (knowledges, skills, and basic skills/ concepts) are identified in the detailed instructional analysis to be completed as the fourth and final step in the process.

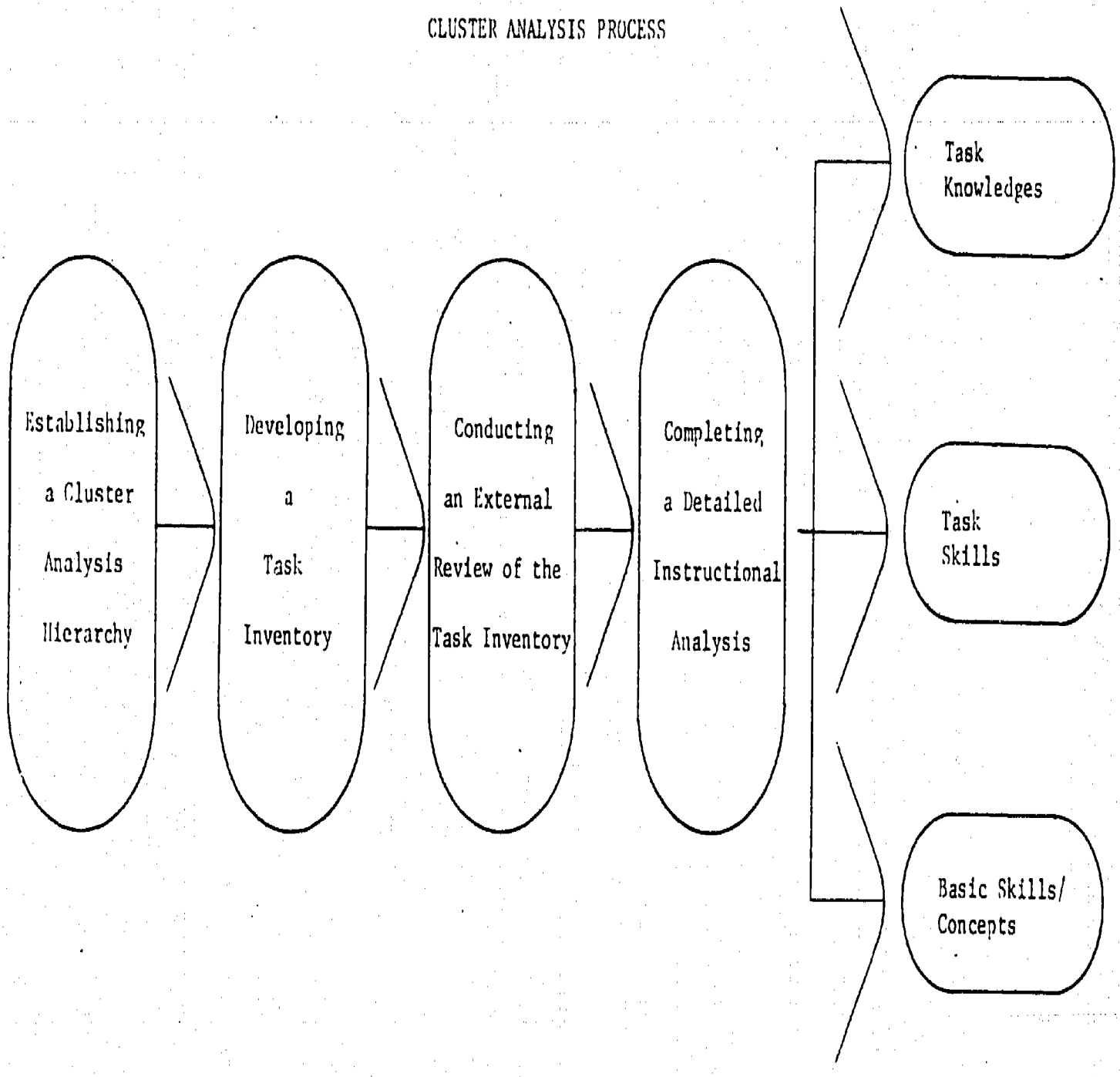
[RESOURCE MATERIAL: Cluster Analysis Hierarchy, Form IV.2.2]

Step 2. Developing a Task Inventory

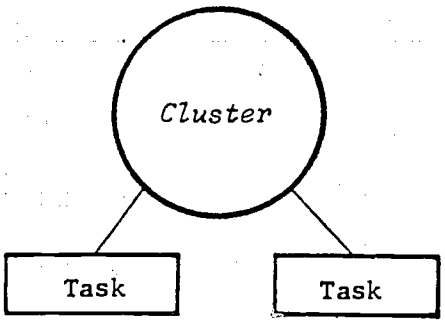
The first step in initiating a career cluster analysis involves developing a list or inventory of tasks. When developing a listing of the tasks performed in a career cluster, several considerations must be made. Among the important considerations are: what types of task statements can be written, what existing sources of task statements can be used, and how are task statements to be written?

a. Types of Tasks: Several different types of task statements can be identified. The types of task statements identified at this step in the process will depend largely upon the goals of the occupational or practical arts education program. Developers of career exploration programs will likely select task statements which are exploratory in nature, and emphasize the recognition of tools, materials, and equipment, safe practices, mathematical, and scientific application, and general occupational information. Those individuals developing career preparation instruction, on the other hand, will emphasize the types of tasks directly required for job entry.

CLUSTER ANALYSIS PROCESS



CLUSTER ANALYSIS HIERARCHY



	Definitions	Illustration: *Career Preparation Cluster*
Cluster	A group of closely-related (by industry) occupations	*Auto Service Occupations*
Task	A unit of worker activity that can be divided into task elements for instruction	*Maintain and replace headlamps*
Task Elements:	Task Elements: The three instructional components into which a task may be analyzed	
Knowledges	Basic cognitive concepts the individual must understand and comprehend to successfully perform the task	*Recognize headlamp identification numbers*
Skills	Basic psychomotor manipulations, movements, or complex operations the individual must demonstrate to successfully perform the task	*Install headlamps*
Basic Skills/ Concepts	Specific capacities and abilities required of an individual in order to learn or adequately perform a task (U.S. Department of Labor, 1965)	*Demonstrate fine motor coordination of eyes, hands, and fingers*

It is possible to develop task statements which will focus on nine different areas. The illustration below lists the nine different types of task statements and provides an illustration of each type. As you will notice, a wide variety of different types of tasks may be developed and included in a task inventory. This diversity in type of task statements permitted will accommodate a broad range of curriculum objectives in career exploration and preparation programs.

Type of Task Statement	Illustration
Job operation or duty	*Take pulse, respiration, and blood pressure*
Safe practices	*Recognize safety color designations*
Equipment, tools, and materials	*Identify different grades of plywood*
Mathematical applications	*Calculate revolutions per minute*
Science application	*Recognize physical principles associated with torque*
Specification interpretations	*Interpret a lubrication service manual*
Occupational terminology	*Recognize medical abbreviations*
Occupational information	*Locate and use the want ads to find work*
Work habits and attitudes	*Dress appropriately for work*

b. Sources of Task Statements: The most difficult and time consuming part of this activity is developing the initial listing of tasks. To insure an adequate and comprehensive analysis, the inventory of task statements should be as complete as possible. Therefore, it is possible that a number of different sources can be used to locate task statements. Sources which may be most helpful include:

- Dictionary of Occupational Titles (Volume 1)
- Previously constructed job analyses or task listings
- Curriculum or instructional guides
- Procedure, service, or process manuals prepared by business and industry
- Occupational Outlook Handbook

Here again, the goals or objectives of the career exploration or preparation program will likely determine which of these sources is most useful.

c. Writing Task Statements: Several important points should be kept in mind when writing task statements. First, task statements should be written at a consistent level of specificity, so that they can be readily converted into units or modules of instruction. This, of course, is much easier said than done. As one begins the process of writing task statements, you will note that some task statements which you develop are too specific and will need to be combined with others. You will also probably write a number of statements which will need to be broken down into smaller tasks.

Some of the sources of task statements mentioned in the preceding section provide excellent examples of tasks statements containing different specificity levels. "Disassembling an automobile engine" can be considered a much larger task in terms of complexity than "changing spark plugs."

In developing task inventories for training programs for the Air Force, Fruchter, Morin, and Archer (1963), found that "what" and "how" phrases should not be combined in a task statement. Below is an example of both "combined" and "separated" "what" and "how" statements.

Combined	Separated
Conduct a credit card sales transaction using a press-type credit card imprinter.	*Conduct a credit card sales transaction (what)* *Operate a press-type credit card imprinter (how)*

Even though more complete information may be provided by the combined statement, the number of meaningful combinations of "what" and "how" statements could lead to a list of tasks which is of unmanageable length.

It is impractical to expect all task statements to be written at precisely the same level of specificity. However, a consistent and comfortable "range of specificity" should emerge as the task statements are developed. It is important to remember also that different teachers or curriculum developers will write at different levels of specificity. The important point is that each person should refine and use statements which are similar in their degree of specificity.

Other general guidelines to be kept in mind when writing task statements are listed below.

- Be sure the task statements are grammatically consistent.
- Eliminate unnecessary modifying phrases as much as possible. For example, in the task, "Interpret measuring rules accurately"; "accurately" need not be included in the statement, it can be assumed.
- Use multiple verbs like "remove and replace" only when it is anticipated that both operations will be covered in the same unit of instruction.
- Avoid using vague or ambiguous verbs such as coordinate, substantiate, operationalize, discuss, or verify.
- Make the task statements as short and concise as possible.

After the initial task inventory is developed it may be helpful to identify each statement with an identification number. If task inventories for more than one cluster are being developed it may also be helpful to use letter abbreviations to identify the different clusters. If data are to be collected and tabulated on each task statement, the use of code letters and numbers will make the process more efficient. A sample coding system is presented in the example inventories on the following pages.

Forms IV.2.3 and IV.2.4 present two task inventories. One inventory was designed for a career preparation cluster in auto mechanics occupations, and the other for a career exploration cluster entitled construction occupations.

[*RESOURCE MATERIALS: Task Inventory--Auto Mechanics Occupations, Form IV.2.3*
Task Inventory--Construction Occupations, Form IV.2.4]

You should now proceed with developing a task inventory for your cluster.

Step 3. Conducting an External Review of the Task Inventory

Once a preliminary list of tasks has been identified for the clusters, it is important that they be reviewed and validated as essential instructional content. When seeking curriculum validation information on a list of task statements, a variety of questions can be asked. The information requested from a particular validation source, such as an occupational advisory committee, will depend upon the ability of the source to provide

Check One

☐ Career Exploration Cluster
☑ Career Preparation Cluster

TASK INVENTORY

Cluster: Auto Mechanics Occupations

Id. Code	Task
AM01	Service the components of the mechanical system.
AM02	Service cooling systems.
AM03	Service lubrication systems.
AM04	Service fuel and carburetion system.
AM05	Service ignition systems.
AM06	Service exhaust systems.
AM07	Service electrical systems.
AM08	Service cranking motor systems.
AM09	Service charging systems.
AM10	Service standard transmissions.
AM11	Service clutches.
AM12	Service differentials.
AM13	Service driveshafts.
AM14	Service brake systems.
AM15	Service suspension systems.
AM16	Service hydraulic system components.
AM17	Service air conditioning systems.
AM18	Service emission control systems.
AM19	Service front end alignment.
AM20	Lubricate vehicle chassis and change engine oil and filter.
AM21	Mount, balance, and rotate tires.

Check One

☑ Career Exploration Cluster

☐ Career Preparation Cluster

TASK INVENTORY

Cluster: Construction Occupations*

Id. Code	Task
CON 01	Writing specifications
CON 02	Selecting a site
CON 03	Surveying and mapping
CON 04	Soil testing
CON 05	Preparing working drawings
CON 06	Selecting and purchasing a lot
CON 07	Planning the living space
CON 08	Financing and contracting
CON 09	Building the substructure
CON 10	Building walls
CON 11	Building floors and ceilings
CON 12	Enclosing exteriors
CON 13	Roughing in utilities
CON 14	Completing the house
CON 15	Landscaping homesite
CON 16	Planning community services
CON 17	City and regional planning considerations
CON 18	Planning business facilities
CON 19	Managing community development
	. . .
	. . .

*Adapted from Lux, D.G. and Ray, W.E. The World of Construction: Industrial Arts Curriculum Project. Bloomington, Illinois: McKnight Publishing Company, 1970.

the information. For instance, screw-machine operators are considered an expert validation source when attempting to determine the specific job skills needed to be a screw-machine operator. However, supervisors and employers of screw-machine operators may be better able to describe the basic skills and attitudes which screw-machine operators should have in order to be "successful" at their jobs.

a. Validation Information: A variety of different types of validation information can be obtained from different sources. Let's look first at what information employees or job incumbents can provide. The most critical information an employee can provide is identification of the tasks he is required to perform on his job. Once this initial question of actual job performance is carefully analyzed, a number of other pieces of information can be obtained from the job incumbent.

- Frequency of task performance
- Whether or not the task should be performed as part of their present job
- The learning difficulty associated with the task
- The prerequisite skills needed before the task can be performed effectively
- The complexity of the task
- The minimum level of acceptable task performance

Employers or supervisors can provide more specific feedback with regard to:

- Importance of the task to the job as a whole
- The basic skills, aptitudes, and attitudes required to perform the task
- The commonality of tasks across more than one job
- The life-expectancy of the job or task. Will it become technologically obsolete in the foreseeable future?

From those listed above, two pieces of information are critical for instructional planners. First, which tasks in the inventory are essential or desirable for entry employment in each of the occupations in the cluster. Second, which tasks are common to more than one occupation within the cluster. The first piece of information dictates which tasks should be included in the cluster-based instructional program. While the second can suggest a general sequence for the instruction.

b. Types of External Review: In occupational programs a number of different sources have been used to review and validate curriculum content. Questionnaires, interview forms, and task analysis inventories have been used with advisory committees, employer organizations such as the Chamber of Commerce, employee organizations such as unions, or individual employers and employees, and graduates currently enrolled in post-secondary training institutions.

Melching and Borcher (1973) have prepared an excellent set of procedures for selecting and locating worker samples. The procedures they suggest are designed for using mail surveys, but also outline some general considerations for conducting telephone and interview surveys. The procedure they have developed is presented in Form IV.2.5.

[*RESOURCE MATERIAL: Process for Locating and Using Worker Samples, Form IV.2.5*]

c. Format Considerations: The specific format selected for presenting the task statements inventory for external review will depend upon the information desired from the reviewers. As suggested earlier, the information of most importance in a cluster-based instructional program is: (1) which of the identified tasks are essential, desirable, or unnecessary for entry employment in the identified occupations, and (2) which of the identified tasks are commonly performed in more than one occupation within the cluster.

The cluster analysis survey (Form IV.2.6) on the back of the following page presents an example survey form which will provide both kinds of information. Depending upon the size of the business, this form can be used with employers, supervisors, or employees. It has been used as a data gathering instrument in either an interview situation or a mailed survey questionnaire.

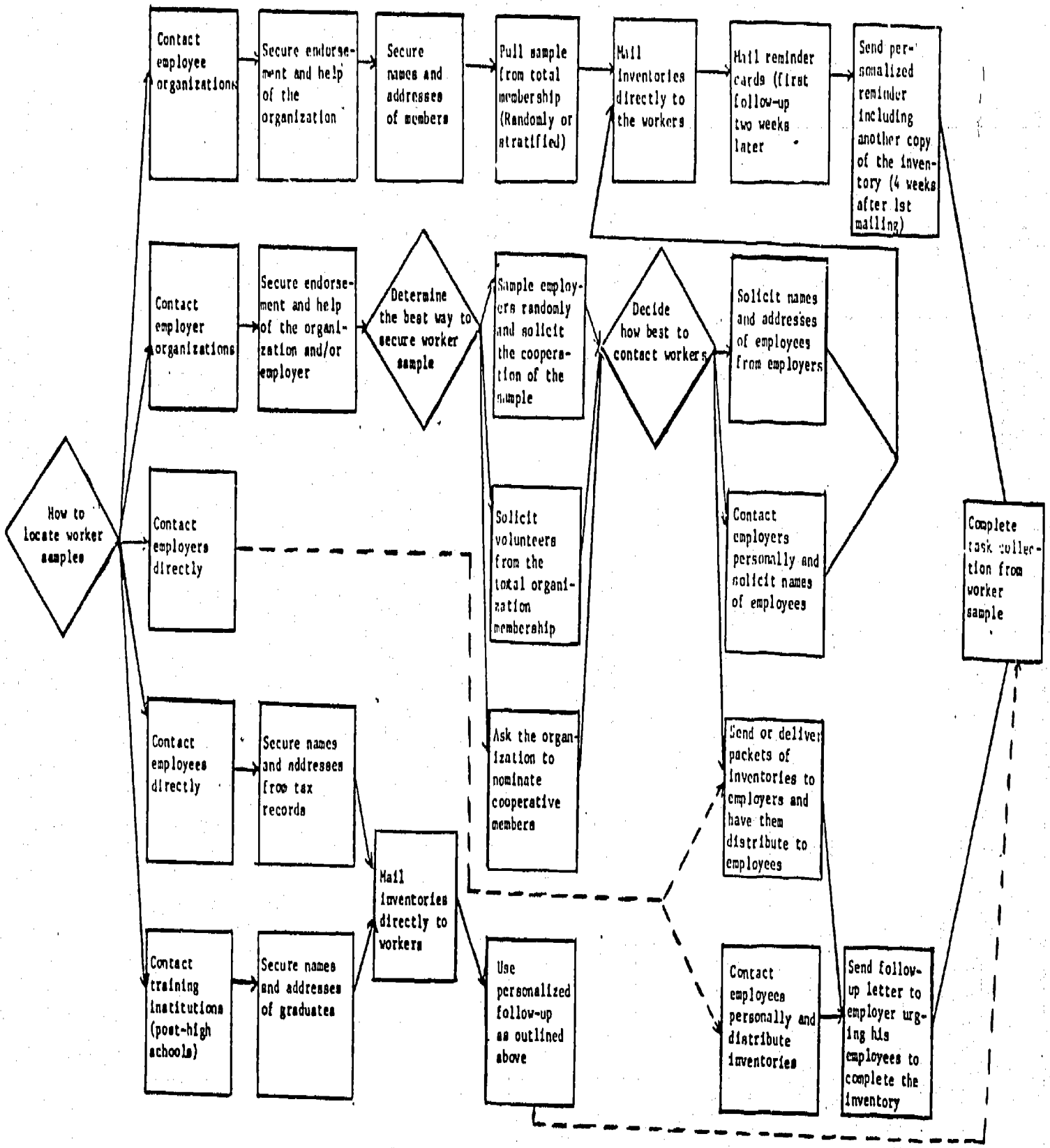
[*RESOURCE MATERIAL: Cluster Analysis Survey--Auto Body Maintenance Cluster, Form IV.2.6*]

After having modified the Cluster Analysis Survey form to include the occupations in your cluster and the tasks from your inventory, you should proceed with the survey to validate the task listing.

Step 4. Completing a Detailed Instructional Analysis

The final step in the career cluster analysis process is to conduct a detailed instructional analysis of each of the tasks. Once the task inventory has been reviewed and evaluated by an advisory committee, employers, employees, or other possible external validation sources, an appropriate decision can be made as to whether or not to include the task in the proposed curriculum. If a decision is made to include the task(s), a detailed instructional analysis will need to be completed.

PROCESS FOR LOCATING AND USING WORKER SAMPLES[1]



[1] Melching, W.H. and Borcher, S.D. Procedures for Constructing and Using Task Inventories. Columbus: The Center for Vocational Education, The Ohio State University, 1973.

Name of Respondent: Al Kerscke
Place of Employment: Al's Body Shop
Occupation: Estimator - Supervisor
No. of Years in Occupation: 16

CLUSTER ANALYSIS SURVEY

Cluster: Auto Body Maintenance

Directions: Listed below are a series of tasks performed in one or more of the selected entry occupations identified for this cluster. For each task that is "essential or critical" for successful, entry performance in the identified occupation, place an "x" in the appropriate box. For each task that is a "desirable" competency in a worker entering the identified occupation, place an "o" in the appropriate box. Add any tasks which are essential (x) or desirable (o) to successful occupational performance which are not listed.

Id. Code	TASKS	SELECTED ENTRY OCCUPATIONS: SHOP ESTIMATOR	AUTOMOBILE BODY REPAIRMAN	PAINTER, AUTOMOBILE	AUTOMOBILE-BODY REPAIRMAN HELPER
ABM 01	Remove, overhaul, and replace trim and hardware		X	O	X
ABM 02	Perform bumping operations	X	X	O	O
ABM 03	Remove and replace body components		X	X	X
ABM 04	Prepares surface for painting		O	X	X
ABM 05	Apply masking tape and paper			X	X
ABM 06	Operate spray paint equipment			X	O
ABM 07	Perform lacquer refinishing			X	O
ABM 08	Perform enamel refinishing			X	O
ABM 09	Remove and install glass		X	O	X
ABM 10	Preparing vehicle for delivery	O	O	O	X
ABM 11	Estimating damage repairs	X	X	O	
ABM 12	Select and use appropriate materials and supplies	X	X	X	X

Occupational and special educators should be equally involved in this stage of the career cluster analysis process. This stage essentially pulls together all of the data and information from employers, supervisors, employees, and graduates, and forms a basis for instructional planning. Both formal and informal feedback from the reviewers should be carefully analyzed and considered during this phase. General teacher knowledge of student interests and aptitudes, as well as the occupational teacher's knowledge and experience regarding employment and work practices in the cluster will also be important in developing the detailed instructional analysis.

The detailed instructional analysis will focus on identifying the instructional elements of each task. Knowledges, skills, and basic skills/concepts were defined earlier as the three components of a task which are critical to planning and providing specific career preparation or career exploration experiences.

a. Detailed Instructional Analysis Format: A format for the detailed instructional analysis is presented on the following pages. A one-page format is used to analyze each task separately. As illustrated in the examples, task knowledges and task skills are identified for each task. The basic skills/concepts (such as measuring or sequencing) which are required for each knowledge and skill are also identified.

[*RESOURCE MATERIALS: Detailed Instructional Analyses, Form IV.2.7*]

b. Task Knowledges: For each task it would be possible to list a number of discrete knowledge elements. It is helpful, however, to consider identifying task knowledges at different levels. The Taxonomy of Educational Objectives for the Cognitive Domain developed by Bloom and others (1956) is a helpful reference. Form IV.2.8 illustrates the five different types and levels of task knowledge statements. Within each of the five levels a number of different types of task knowledge statements can be developed. From IV.2.8 also provides an example task knowledge statement for each level which is oriented to occupational instruction.

When analyzing each task it is important to review the different types and levels of possible task knowledge statements, and attempt to identify the essential task knowledges for a task at different levels.

[*RESOURCE MATERIAL: Levels and Types of Task Knowledges, Form IV.2.8*]

c. Task Skills: Task skills are the physical, manipulative components or operations of the task. One of the difficulties in identifying and listing task skills is the lack of an appropriate classification scheme for vocational skills. The existing taxonomies provide a conceptual analysis of psychomotor skills which is much too specific for curriculum development in occupational or practical arts education.

DETAILED INSTRUCTIONAL ANALYSIS

TASK: Complete a job application form

Id. Code: EPS 07

Task Knowledges:	Basic Skills/Concepts:
1. Recognize and provide the following information on a standard application form: a. Name / address b. Telephone number c. Age / marital status / social security number d. Family information e. Educational background f. Employment background g. Personal and job references h. Military status i. Other pertinent information	1. Recognize and use numbers Record information accurately Follow written instructions

Task Skills:	Basic Skills/Concepts:
1. Read all of the directions 2. Print clearly 3. Spell accurately 4. Provide all information requested	(Note: Because this is a somewhat basic task, there is probably no need to analyze it further to derive more specifics, unless the task will be taught to severely handicapped learners.)

DETAILED INSTRUCTIONAL ANALYSIS

TASK: Complete a credit card sales transaction

Id. Code: RT08

Task Knowledges:	Basic Skills/Concepts:
1. Identify and describe the information required on a credit card a. product description b. quantity c. customer number d. customer signature e. cost f. tax	1. Recognize numbers as cost figures Add to compute total cost Compute tax by multiplication Identify product names correctly

Task Skills:	Basic Skills/Concepts:
1. Follow a prescribed procedure for handling credit card transactions a. obtain card from customer b. itemize purchases and tax on receipt form c. set cost digits on machine d. place card in roller machine e. place receipt in machine f. roll head over card g. remove receipt and card for purchaser to sign h. return card to purchaser i. place store copy of receipt in predetermined location Verify credit card information a. check signature on card b. check expiration date on card c. call telephone number to	1. Write legibly and spell accurately Record information accurately Hand-eye coordination 2. Recognize dates (month and year) written as numbers (e.g., 5/76) Use the telephone to obtain specific information

LEVELS AND TYPES OF TASK KNOWLEDGES

	Level and Type[1]	Task Knowledge Statements: Illustrations
1.00	KNOWLEDGE of:	
	Terminology	*Define the concept of torque*
	Specific facts	*Identify the normal human pulse rate*
	Conventions	*Recognize rules for dividing words (in typing)*
	Trends and sequences	*Recognize current casual wear fashions*
	Classifications & categories	*Identify a specific range of type sizes*
	Criteria	*Recognize the standards for licensing beauticians*
	Methodology	*Identify a basic troubleshooting procedure*
	Principles and generalizations	*Recognize Ohm's law*
	Theories and structures	*Identify the theory of electronic covalence*
2.00	COMPREHENSION by:	
	Translation	*Read a set of blueprint specifications*
	Interpretation	*Interpret an elevation view*
	Extrapolation	*Estimate the tolerance required in a slip fit*
3.00	APPLICATION by:	
	Analysis of elements	*Analyze the design elements in a floor plan*
	Analysis of relationships	*Analyze the mechanical system of a hydraulic pump*
	Analysis of organizational principles	*Analyze the organizational pattern of a labor union*
4.00	SYNTHESIS by:	
	Production of a unique communication	*Draft an interoffice memo*
	Production of a plan, proposed set of operations	*Design a residential wiring plan*
	Derivation of a set of abstract relations	*Classify the advantages/disadvantages of a specified floor plan*
5.00	EVALUATION by:	
	Judgments--internal evidence	*Assess the accuracy of a thread pitch*
	Judgments--external criteria	*Evaluate the costs and benefits of using different types of floor coverings*

[1] Bloom, B.S., et al., A Taxonomy of Educational Objectives: Cognitive Domain. New York: Longmans, Green, Co., 1956.

For purposes of the detailed instructional analysis, it is important to list the basic procedures, operations, or processes which are included in the task. This will define the skills needed in a procedural or developmental context which is useful in instructional planning.

d. Basic Skills/Concepts: The format presented in the two examples provides for the identification of basic skills/concepts for both the task knowledges and task skills. Basic skills/concepts are the specific abilities required of an individual in order to learn or adequately perform the task. This part of the analysis makes it particularly appropriate for special needs learners. The basic skills/concepts identify the areas of the job in which persons with perceptual, mental, learning behavioral, or physical problems may encounter difficulty.

The basic skills/concepts provide another level of analysis which is more specific than the knowledges and skills involved in the task. They provide a more specific description of the functional abilities required to perform the task.

Prior to identifying the basic skills/concepts, it is helpful to review the basic skills/concepts listed on the Learner Analysis Profile in Module 1. You will recall that several basic competencies were listed in eight major areas:

Quantitative/numerical skills
Verbal skills
Cognitive skills
Perceptual skills
Language skills
Psychomotor/physical skills
Social skills
Occupational aptitudes

Reviewing the skills/concepts in each of these areas will help to identify a "comprehensive" list of basic competencies required for employment in a particular task(s) and cluster. By using a common set of basic skills/concepts, it will facilitate the matching of learners to prospective jobs, when an individual's Learner Analysis Profile (from Module 1) is matched against an instructional analysis for a particular task.

[*RESOURCE MATERIAL: Learner Analysis Profile, Form I.2.1 (in Module 1)*]

You should now proceed with conducting a detailed instructional analysis.

Form IV.2.3
Reproduction Master

Check One

☐ *Career Exploration Cluster*

☐ *Career Preparation Cluster*

TASK INVENTORY

Cluster: _____

Id. Code	Task

Form IV.3.3
Reproduction Master

Name of Respondent: _____
Place of Employment: _____
Occupation: _____
No. of Years in Occupation: _____

CLUSTER ANALYSIS SURVEY

Cluster: _____

Directions: Listed below are a series of tasks performed in one or more of the selected entry occupations identified for this cluster. For each task that is "essential or critical" for successful, entry performance in the identified occupation, place an "x" in the appropriate box. For each task that is a "desirable" competency in a worker entering the identified occupation, place an "o" in the appropriate box. Add any tasks which are essential (x) or desirable (o) to successful occupational performance which are not listed.

Id. Code	TASKS	SELECTED ENTRY OCCUPATIONS			

DETAILED INSTRUCTIONAL ANALYSIS

TASK:

Id. Code:

Task Knowledges:	Basic Skills/Concepts:

Task Skills:	Basic Skills/Concepts:

Self-Check Evaluation

Inservice Experience IV.2: Conducting a Career Cluster Analysis

Directions: *This evaluation form will assist you in determining the adequacy of: (1) the Task Inventory and (2) the Cluster Analysis Survey, and (3) the Detailed Instructional Analysis forms which you have completed. When the evaluation of each form is completed, be sure to revise or expand the information on the form, as suggested by the evaluation.*

Task Inventory Evaluation (Check the appropriate box, or circle appropriate number on each scale)

1.	Name of cluster from which tasks are drawn is identified?				yes ____ no ____
2.	Type of cluster (exploration or preparation) is identified?				yes ____ no ____
3.	Task statements tend to combine "what" and "how" phrases	1	2	3	"What" and "how" phrases are not combined in single task statements
4.	Inconsistent range of specificity in task statements is obvious	1	2	3	Consistent range of specificity in task statements is maintained
5.	Task statements reflect grammatical inconsistencies	1	2	3	Task statements are grammatically consistent
6.	Task statements are vague	1	2	3	Task statements are clear
7.	Task statements are ambiguous	1	2	3	Task statements are concise

Cluster Analysis Survey Evaluation (Circle an appropriate number on each scale)

1.	Identification information describing respondents is incomplete	1	2	3	Identification information describing respondents is complete
2.	Small, limited sample of respondents used	1	2	3	Adequate, representative sample of respondents used
3.	Space is not permitted for adding tasks	1	2	3	Space is provided for the respondent to add tasks
4.	Space is not permitted for adding entry occupations	1	2	3	Spaces are provided for the respondent to add entry occupations to the survey form.

Detailed Instructional Analysis Evaluation (Circle an appropriate number on each scale)

1.	Identified task knowledges are incomplete	1	2	3	Identified task knowledges provide an accurate and comprehensive description of the task
2.	Identified task skills are incomplete	1	2	3	Identified task skills provide an accurate and comprehensive description of the task
3.	Identified basic skills/ concepts are incomplete	1	2	3	Identified basic skills/concepts provide an accurate and comprehensive description of the task

Comments:

Suggestions for Modification of:

1) the Task Inventory

2) the Cluster Analysis Survey

3) the Detailed Instructional Analysis

Resource Bibliography

The following are specific references which can be reviewed along with each of the inservice activities. These references expand upon the ideas, guidelines, and suggested activities provided in each of the inservice experiences in this module.

Inservice Experience IV.1: Identifying Career Clusters

Evans, R. N. "Career Education and Vocational Education: Similarities and Contrasts." A position paper prepared at University of Illinois, Urbana-Champaign, 1975.

Hoyt, K. B. An Introduction to Career Education: A Policy Paper of the U.S. Office of Education. Washington, D.C.: U.S. Department of Health, Education, and Welfare, 1974.

Kenneke, L. J.; Nystrom, D.C.; and Stadt, R. W. Planning and Organizing Career Curricula: Articulated Education. New York: Howard W. Sams and Co., Inc., 1973.

Sjogren, D. D. "A Functional Approach to Curriculum Development" in Cunningham, W. W. (Ed.). The Job-Cluster Concept and Its Curricular Implications. Raleigh: Center for Occupational Education, North Carolina State University, 1969.

U.S. Department of Labor. Occupational Outlook Handbook. Washington, D.C.: Government Printing Office, 1974.

U.S. Office of Education. Career Education. Washington, D.C.: Government Printing Office, 1976.

U.S. Office of Education and U.S. Department of Labor. Vocational Education and Occupations. Washington, D.C.: Government Printing Office, 1969.

Inservice Experience IV.2: Conducting a Career Cluster Analysis

Bloom, B. S. and others. A Taxonomy of Educational Objectives: Cognitive Domain. New York: David McKay Company, Inc., 1956.

Central Michigan University. Program Guide. Mt. Pleasant: Central Michigan University, 1973.

Fruchter, B.; Morin, R. E.; and Archer, W. B. "Efficiency of the Open-Ended Inventory in Eliciting Task Statements from Job Incumbents." Lackland Air Force Base: 6570th Personnel Research Laboratory (AMD/AFSC), March, 1963.

Mager, R. F., and Beach, K. M. Developing Vocational Instruction. Palo Alto, California: Fearon Publishers, 1967.

Melching, W. H., and Borcher, S. D. Procedures for Constructing and Using Task Inventories. Columbus: Center for Vocational Education, The Ohio State University, 1973.

M O D U L E 5:

INSTRUCTIONAL PLANNING

Instructional planning involves the developing and sequencing of specific modules or units of instruction. Planning is the step in which the information gathered from the previous activities is incorporated in a series of instructional units designed for a special needs learner. Here the learner assessment information (Module 1), the available resources (Module 3), and the job analysis information (Module 4) are all combined to develop and appropriately sequence a series of units that will lead to the attainment of entry employment and independent adult living skills.

The two inservice experiences in this module emphasize the cooperative involvement of occupational and special educators in planning specific units or modules of instruction. The first inservice experience outlines a procedure and format for developing instructional modules for the learner, while the second outlines a number of alternatives for sequencing modules and instruction for special needs learners.

Overview

Written instructional plans developed by occupational and special educators are important for several reasons:

1. They enable the teacher to systematically write and develop instructional activities which make optimum use of the teaching resources available from occupational and special educators.
2. Well developed instructional plans aid the teacher and other instructional staff in monitoring learner progress throughout the instruction.
3. Written plans are also essential in evaluation and revision of the instructional unit or module for future use.

A number of different advantages have been cited by educators who use written instructional plans. In working with special needs learners, written plans are especially critical because they:

1. Provide a format for specifying the related instructional content to be presented by both occupational and special educators.
2. Assist the instructional team in clarifying instructional objectives for an individual student.
3. Provide a sense of stability for the overall instructional process.
4. Assist the instructional team in selecting appropriate and relevant activities for the learner.
5. Provide a built-in progress evaluation system.

6. Lead to efficient use of instructional time.

7. Provide a basis for evaluating the unit of instruction.

8. Reduce the amount of trial-and-error in instruction.

9. Insure continuity of content within and between instructional modules.

10. Aid substitutes and assisting instructional staff.

Instructional modules will be used as the basic format and vehicle for instructional planning. An instructional module for a special needs learner is quite different in format and content than the inservice modules you have been developing and using. It is important that you do not confuse the two.

An instructional module is similar to what other instructional developers have traditionally called lesson plans or instructional units. For our purposes, the instructional module will focus on planning instruction for one of the tasks identified within a cluster of occupations. You will recall from Module 4 that a task is defined as: *a unit of worker activity that can be divided into task elements for instruction.* Task statements such as "recognize safety color designations," or "servicing automotive brake systems" will become the title and overall focus of the instructional module.

In order to effectively develop a plan for teaching a task to a special needs learner, several specific planning considerations have to be made. These considerations are made by spelling out several different items to be included in your instructional module or unit. The critical components of an instructional module for a special needs learner will include:

1. Performance objectives which specify the occupational concepts, skills, and competencies to be learned.

2. Basic skills/concepts which specify the basic competencies to be developed by the learner prior to or during the instruction.

3. Basic skill/concepts content identifies the specific basic skills and concepts involved in the task, which can be taught by the special education or basic academic instructional staff.

4. Instructional activities, which describe the specific experiences the teachers and learners will undertake in both occupational and basic or special instructional situations.

5. Instructional resource materials which will be used as a part of the instructional activities.

6. A checklist system for monitoring student attainment of the performance objectives and basic skills/concepts in the module.

Sequencing the presentation of modules and concepts to be learned is also an important aspect of instructional planning. Several sequencing principles are presented and discussed in the second inservice experience in this module, while the first experience will focus exclusively on developing instructional modules.

Cathy: A Case Study

Cathy is enrolled in the Ornamental Horticulture program at an area vocational center located in a suburb of a large midwestern city. Throughout her junior and senior high school years she has continued to encounter reading problems, even though she has been in the remedial reading program since the fifth grade. This year she has developed a keen interest in horticulture, and working with flowers in particular. During the first quarter she and the other students conducted a series of experiments which will give them an understanding of plant theory. Mr. Bergston, the Horticulture teacher, and Ms. Oson, an instructor in the Learning Skills

Lab at the Center, together developed an instructional module for each experiment similar to the one presented in Form V.1.2(a) in Inservice Experience V.1 in this module.

The first experiment, which is presented in the example module, focused on: recognizing the effect of temperature on germination and growth. A number of performance objectives were identified which Cathy and other learners were to have attained at the conclusion of the experiment. The basic skills/concepts (such as measuring with a rule and reading a thermometer) involved in each of the objectives were also described. On the reverse side of the module, a number of instructional activities describing how the Horticulture and Learning Skills Lab instruction were coordinated were listed. During the 15-day experiment Ms. Roson worked with Cathy on: (1) understanding the key technical vocabulary terms such as "vermiculite" and "germination," (2) measuring the heights of the plants, and (3) reading and recording the temperature on the thermometers. As the experiment progressed, Ms. Roson and Mr. Bergston talked frequently about the enthusiasm and interest Cathy was exhibiting as a result of their team effort.

Matt: A Case Study

Matt is 25 years old and has never attended a public school. Since the age of five he has lived in a state hospital for the severely handicapped. While his hearing and vision are impaired to some extent, he has excellent fine motor coordination and manual dexterity.

Some time ago three of the staff members at the sheltered workshop in the state hospital where Matt resides became interested in new training techniques. Prior to this, Dick Atkin, one of the staff members, had been in contact with the owner of a small shop that sells and services motorcycles and other recreational vehicles. The owner noted that they frequently accumulated a large supply of spark plugs that could be re-sold if they were cleaned and adjusted. After considerable discussion, and a demonstration of the cleaning and adjusting process, the manager provided Dick with several dozen used spark plugs and the tools and materials needed for cleaning and adjusting them.

Dick and his two associates began thoroughly learning the task themselves and searching for numerous, alternative ways in which it could be performed. They eventually outlined a task procedure and several possible ways of teaching it to Matt. The procedure which they developed is presented in Form V.1.2(b) in Inservice Experience V.1. The procedure and task breakdown is outlined on the front of the form, while the instructional procedures and materials used are outlined on the back.

This task, when taught by an auto mechanics teacher to non-special needs learners in a school setting, is generally considered quite simple. For Matt, however, the task had to be divided into and presented in much smaller segments for learning to occur. It took approximately 10 1/2 hours to train Matt to perform the task to criterion level. Criterion level was defined as cleaning and adjusting 15 plugs per hour to the manufacturer's specification. In the five four hour work days that followed, Matt's production reached 85, 93, 106, 110, and 115 spark plugs per day. During this period he earned $101.80.

The process of detailed task analysis as demonstrated by Dick Atkin and his colleagues has proven to be highly successful in teaching and training severely handicapped persons like Matt to perform vocational tasks. Until recently, society has chosen to believe that there was very little that severely handicapped people could do. By choosing to look for alternate ways of performing and teaching the task instead of the limitations of the learner, Dick Atkin and others have uncovered a valuable and sizable manpower resource.

Claude: A Case Study

Mr. Bingham, Ms. Logan, and Mr. Cattington have been planning and coordinating Claude's cooperative education work experience this year. Mr. Bingham teaches in the Learning Resource program at Addison High School while Ms. Logan is a teacher-coordinator in the distributive education (retailing) program. Jeff Cattington is one of the three auto and power mechanics teachers at Addison, which is located in an urban setting and attended by predominantly black and Spanish-speaking students.

Claude is 18 and lives with his mother and five brothers and sisters in a low income housing apartment complex. At the beginning of the tenth grade his reading and math achievement scores were 3-4 grade levels below those of his peers. He was subsequently referred for remedial assistance and has been in the Learning Resource program for 2 1/2 years.

In September Mr. Cattington was able to locate a part-time job for Claude in a neighborhood gas station. In addition to pumping gas and working in the driveway, he has learned to change tires and replace

exhaust systems. Recently, he has been working with the owner-mechanic, learning how to use the electronic diagnosis scope. In more than six months he has missed only four days of work and received two pay raises. He currently makes $3.85 per hour.

Claude's mother feels he has excelled in his school work primarily because of the intense interest shown by his teachers this year. When Claude first went to work Ms. Logan and Mr. Bingham met frequently to plan a series of modules that were coordinated with his job activities. One of the first modules was "Handling credit card transactions" [see Form V.1.2(c)]. In this module Ms. Logan emphasized techniques for operating the credit card machine, verifying credit, and greeting the customer, while Mr. Bingham reinforced the math and writing skills involved in filling out credit card receipts.

Later in the semester, the emphasis was directed toward job seeking and maintenance skills such as filling out job applications, joining a union, and applying for a social security number. The social security module, which was developed by the team, is presented in Form V.1.2(d).

In June, Claude will have completed all of the courses for graduation except one. His grades and school attendance have improved considerably this year. As soon as school is out he will go to work full-time at the station and has assured everyone that he will enroll in the adult evening program in the Fall to complete his graduation requirements.

Goals

Condition: Given the responsibility to initiate and develop career-oriented educational experiences for special needs learners, upon completion of this module the inservice participant will:

Performance Competencies:

1. Develop a detailed instructional module which will include:
   a. performance objectives
   b. basic skills/concepts
   c. basic skill/concept content
   d. instructional activities
   e. instructional resource materials
   f. progress monitoring system
2. Sequence instructional modules and concepts in accordance with the needs of individual learners.

Inservice Experience Descriptions

Two inservice experiences are included in this module on instructional planning. Each is described in greater detail below.

Inservice Experience V.1:
DEVELOPING INSTRUCTIONAL MODULES

This inservice experience will describe the components and processes involved in developing an instructional module. In this experience you, as a member of the instructional team of occupational and special educators, will work collectively in specifying objectives and planning teaching techniques to be used. The outcome of this experience will be at least one completed module for one or more special needs learners.

Inservice Experience V.2:
SEQUENCING INSTRUCTION

This inservice experience will acquaint you with a variety of specific considerations which should be made when planning the sequence of instruction for one or more special needs learners. Considerations related to overall sequencing of modules, as well as specific considerations dealing with the presentation of concepts, skills, etc. within a module will be discussed. The product of this experience will be a priority sequence of at least ten instructional modules for one or more special needs learners.

Inservice Experience Selector

Following consultation with the inservice director, I (we) have decided to undertake and complete the Inservice Experience checked (✓) below for Module 5.

_____ Inservice Experience V.1: Developing Instructional Modules

_____ Inservice Experience V.2: Sequencing Instruction

Date: _____

School: _____

Inservice Director:

_____

Participant Name(s):

_____

_____

_____

_____

INSERVICE EXPERIENCE V.1:

DEVELOPING INSTRUCTIONAL MODULES

The first phase of instructional planning involves developing instructional modules. As suggested earlier, an instructional module can also be thought of as a lesson plan or a unit plan for teaching. Typically, an instructional module will focus on one of the tasks listed in an inventory of tasks for a career cluster (Module 4). A number of instructional modules then will be included in a course or instructional program.

An instructional module for a special needs learner should include the following:

1. Performance objectives
2. Basic skills/concepts
3. Basic skill/concept content
4. Instructional activities
5. Instructional resource materials
6. System for monitoring learner progress

The most important consideration when developing an instructional module is the content of the module, rather than the arrangement of headings on the page. It is essential that an instructional module for most special needs learners enrolled in occupational and special education programs include the six components listed above. A format for planning which is functional and easy-to-use is also important in making efficient use of time which occupational and special educators have for joint planning. Form V.1.1 on page 191 presents an instructional module format that has been field tested and adopted by a sizable number of occupational

and special educators. This is not to suggest that all of these teachers and coordinators currently use the two-page form exactly as it is presented here. Some teachers have developed slightly different column or section headings, and rearranged some of the sections on the sheet. However, the consensus feeling among those who have developed and used this format is that the form identifies the critical information needed to effectively plan an educational experience for a special needs learner.

[*RESOURCE MATERIAL: Instructional Module Format, Form V.1.1*]

Guidelines and Suggestions

The following sections will discuss each of the instructional module components, examining the purpose and intended use of the information, and listing several guidelines to follow in writing that segment of the module.

1. Four example modules are presented on the following pages for reference purposes. The four examples, taken from the case studies presented earlier, can be referred to for clarification and illustrations throughout the guidelines and suggestions which follow.

   [*RESOURCE MATERIALS: Example Instructional Modules--*
   Cathy - Recognizing the effects of temperature on germination and plant growth, Form V.1.2(a)
   Matt - Clean and adjust spark plugs, Form V.1.2(b)
   Claud[illegible] - Handling credit card transactions, Form V.1.2(c)
   Applying for a social security card, Form V.1.2(d)]

2. Cluster/Program. This heading at the top of the module (on both sides of the sheet) should identify the cluster and/or instructional program in which this instructional module will be used. Module 4 focused on identifying clusters and related instructional programs and should be used as a reference in completing this section of the module.

Task:

Id. No.: _____

Learner: _____

Progress				upational Performance Objectives
Introduced	Developing	Practiced	Maintained	Given the necessary tools, materials, equipment, and requisite knowledge, the learner will:

Basic Skills/ Concepts	Basic Skill/Concept Content	Progress	
		Introduced	Developing	Maintained

CLUSTER/PROGRAM:

Id. No.: _____ Task:

OCCUPATIONAL INSTRUCTION	BASIC SKILL/CONCEPT INSTRUCTION
Teacher Activites:	*Teacher Activities:*
Learner Activities:	*Learner Activities:*

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	*Media*	*Source*	*Name/Title*	*Media*	*Source*

CLUSTER/PROGRAM: Ornamental Horticulture

Form V.1.2(a)

Id. No.: 12

Task: Recognizing the effects of temperature on germination and plant growth

Learner: Cathy

Progress				Occupational Performance Objectives
Introduced	Involved	Productive	Employable	
				Given the necessary tools, materials, equipment, and requisite knowledge, the learner will:
				1. Observe the length of time for seeds to germinate at two temperatures a. Obtain materials b. Saturate vermiculite with water c. Sow five seeds in vermiculite 1/4" deep d. Record date of planting on tape on the pot e. Place one pot in hot box while leaving other in room
				2. Record the rate of growth a. Read and record the temperature in the room and hot box b. Observe when seeds have germinated (just appear above vermiculite) c. Record the date, room temperature, hot box temperature, and height of each plant daily on a worksheet
				3. State a conclusion regarding the effect of temperature on germination

Basic Skills/ Concepts	Basic Skill/Concept Content	Progress		
		Introduced	Developing	Competent
Record information	Date of planting Date of germination			
Read a thermometer	To within plus or minus one or two degrees			
Measurement	Read a ruler to within plus or minus 1/16" accuracy			
Generalization	Plant in warmer environment germinated and grew faster than plant in the room temperature environment			

CLUSTER/PROGRAM: Ornamental Horticulture

Id. No.: 12

Task: Recognizing the effects of temperature on germination and plant growth

OCCUPATIONAL INSTRUCTION	BASIC SKILL/CONCEPT INSTRUCTION
Teacher Activites: Assist student in collecting materials and preparing vermiculite Plant seeds on a Friday so observation can occur the following week Review and discuss purpose of experiment Ask student to describe the results of his/her experiment to classmates	*Teacher Activities:* Reinforce key terminology and spelling Vermiculite — Environment Marigold seeds — Seedling Saturate — Thermometer Germination Have students measure and record heights of various plants for practice exercise Have student take and record temperatures outdoors and indoors for practice exercise
Learner Activities:	*Learner Activities:* Water plants daily under supervision of teacher (1/4 cup for 4" potted plant) Measure temperatures daily and record Measure plant height daily and record

194

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	Media	Source	Name/Title	Media	Source
Vermiculite in container 2 containers Seeds (marigold) Worksheet Hot box Two thermometers Ruler			2 wooden markers		

194

195

CLUSTER/PROGRAM: Work Training

Form V.1.2(b)

Id. No.: 1

Task: Clean and adjust spark plugs

Learner: Watt

Progress				Occupational Performance Objectives
Introduced	Involved	Proficiective	Employable	*Given the necessary tools, materials, equipment, and requisite knowledge, the learner will:*
				1. Pick up and place plug in solvent solution
				2. Remove and place plug in plug holder jig with bottom up
				3. Wire brush until clean (use cleaned condition picture for comparison)
				4. Determine plug gap by using different sized guages and placing them between the gap until appropriate size is located
				5. Determine whether plug gap is correct by comparing guage size with the master size on the poster attached to the bench
				6. If necessary, close gap by tapping the ground of the plug lightly with a soft-face hammer unitl the gap guage is moveable within the gap, but both the electrode and ground are touching the surface of the gap guage
				7. Remove plug from jig and place in inspection basket

Basic Skills/ Concepts	Basic Skill/Concept Content	Progress		
		Introduced	Developing	Competent
Finger dexterity	Grasp and hold spark plug			
Form discrimination	Recognize electrode (top) and ground (bottom) ends of spark plug			
Hand-eye coordination	Brushing strokes			
Number recognition	.025, .030, .035, .040 (sizes on the various guages)			
Number recognition and matching	Match 3 digit numbers shown above with those on a wall chart			
Grasping	Hammer handle			
Fine motor coordination	Light tapping of hammer on metal			
Manual dexterity				
Touch discrimination	Feeling the distances between metal surfaces by placing a metal plug between the surfaces			
Grasp and remove				

OCCUPATIONAL INSTRUCTION	BASIC SKILL/CONCEPT INSTRUCTION
Teacher Activites: Design and build a spark plug holding jig that will hold plug in stationary, inverted position Provide individual demonstrations of each step in procedure Instructor places hands on learner's hands and manipulates fingers for various steps Drill the learner on recognition of single numbers, then multiple numbers Continuous reinforcement	*Teacher Activities:*
Learner Activities:	*Learner Activities:*

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	*Media*	*Source*	*Name/Title*	*Media*	*Source*
Spark plug holding jig Spark plug gap guage Number charts Wire brush Spark blug cleaning solvent Soft-face hammer					

CLUSTER/PROGRAM: Marketing and Distribution/Retailing

Form V.1.2(c)

Id. No.: 17

Task: Handle credit card transactions

Learner: Claude

Progress				Occupational Performance Objectives	Basic Skills/ Concepts	Basic Skill/Concept Content	Introduced	Developing Competent
Introduced	Involved	Productive	Employable	*Given the necessary tools, materials, equipment, and requisite knowledge, the learner will:*				
				1. Identify and describe the information required on a credit card transaction a. product description b. quantity c. customer number d. customer signature e. cost f. tax	Reading/retention Verbal communication	Information commonly found on credit card sales receipts Orally describe the different sections of the receipt		
				2. Demonstrate the procedure for handling credit card transactions a. obtain card from customer b. itemize purchases and tax on receipt form c. set cost digits on machine d. place card in roller machine e. place receipt in machine f. roll head over card g. remove receipt and card for purchaser to sign h. return card to purchaser i. place store copy of receipt in predetermined location	Verbal commun. Written commun. Record numbers Addition Multiplication Verbal commun.	Communicate with purchaser Fill out a credit card receipt form From pump meter, cash register, or adding machine Itemized purchases (gas, oil, parts, tax) Computing tax on purchases or reading tax chart Communicate with purchaser		
				3. Describe and demonstrate the methods/ procedures for checking credit card validity a. check signature on card b. check expiration date on card c. call telephone number to verify credit rating	General number use Telephone communication	Read and interpret expiration dates on credit cards (12/76) Request verification for specific credit card (e.g., card no. 560 226 7)		

CLUSTER/PROGRAM: Marketing and Distribution/Retailing

Id. No.: 17

Task: Handle credit card transactions

OCCUPATIONAL INSTRUCTION	BASIC SKILL/CONCEPT INSTRUCTION
Teacher Activites: Design and orient students (in a small group) to a role playing activity to teach them about sales transactions involving credit cards	*Teacher Activities:* Discuss with retailing teacher the procedures and content of the task Preview pamphlets and workbook exercise students will use Prepare a worksheet on identification of the sections of a credit card sales form
Learner Activities: Role play credit sales purchase with classmates Review illustrated pamphlets on "sales talk" Complete Exercise 6 in workbook	*Learner Activities:* Practice filling-out a credit sales slip Practice using credit card machine

198

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	*Media*	*Source*	*Name/Title*	*Media*	*Source*
"Basic Retail Credit"	Workbook	U of Texas	Sample credit cards	--	Bus. Teacher
"Customer Credit Series"	Booklet	Scholastic Magazine	Demonstration machine	--	Bus. Teacher

202

203

CLUSTER/PROGRAM: All clusters/Cooperative Work Experience

Form V.1.2(d)

Task: Apply for a social security card

Id. No.: 16

Learner: Claude

Progress				Occupational Performance Objectives
Introduced	*Involved*	*Productive*	*Employable*	
				Given the necessary background information and application forms, the learner will:
				1. Choose to apply for a social security card if he/she does not currently possess one.
				2. Complete an application for Social Security Number (or replacement if lost card) by providing accurate and complete information.

Basic Skills/ Concepts	Basic Skill/Concept Content	Progress		
		Introduced	*Developing*	*Competent*
Form completion	Full name, Name given at birth, Place of birth (city, county, state), Age on last birthday, Mother's full name at birth, Father's full name, applied before? Sex, color or race, Mailing address, Date, Signature.			
Accuracy	Verify and double check information provided			
Written communication	Print information clearly			
Technical vocabulary	Mother's maiden name Previous federal applications for: social security number railroad number tax account number Color or race white Negro other Treasury Department, Internal Revenue Service			

CLUSTER/PROGRAM: All clusters/Cooperative Work Experience

Id. No.: 16 Task: Apply for a social security card

OCCUPATIONAL INSTRUCTION	BASIC SKILL/CONCEPT INSTRUCTION
Teacher Activites: Discuss the purpose of social security, how it is deducted from paycheck, etc. in small groups. Organize a field trip for small group to the social security administration offices. Invite a coop employer to visit the class and discuss how social security deductions are computed & submitted to IRS. Arrange for class to fill out application form.	*Teacher Activities:* Obtain or prepare several copies of Application for Social Security number form. Develop role play situations where students has to: 1. request and complete a replacement application form 2. request and complete a request for change in Social Security Records. Have application form information brailled or translated to primary language if needed.
Learner Activities: Students fill out application forms using personal information sheets. Student's check each other's completed forms. Interview an employer regarding social security deductions.	*Learner Activities:* Have students list on paper all of the information required on the application. Practice stating information in the briefest form (e.g., dates: 1/1/76). Students check each other's information sheets. Students take completed forms to Post Office and submit individually, or in teams. Practice printing required information clearly.

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	Media	Source	Name/Title	Media	Source
			Application for Social Security Number	form	Post Office

200

3. Learner Identification. The instructional module you are about to develop is an individualized instructional plan. Thus, the name of the special needs learner for whom this plan is being developed should be placed in the blank in the upper right corner of the module.

   To aid the instructional team in developing this module, the learner analysis profile and learning prescription which were developed in Module 1 for this learner should be reviewed prior to developing the module. It will be helpful to have these documents available during the writing of this and subsequent modules.

4. Task Title. As described in Module 4, the basis for occupational curricula can be viewed as a cluster of occupations. The specific competencies required for employment in one or more of the occupations can be identified as "tasks." These commonly performed, occupational tasks become the basic unit for curriculum development. Each module then is focused on one particular task which either familiarizes, or prepares the learner for the occupations in which that task is performed.

   At the top of the form on both sides, the cluster and task from which it comes should be clearly identified. These headings are similar to such designations as "course" and "unit or lesson," which are commonly found in other instructional plans.

   A task is a general behavioral description of the performance the learner will demonstrate when the instructional module has been completed. As noted in Module 4, several different types of task statements can be used. An example of each is provided below:

Type of Task Statement	Illustration
Job operation or duty	*Take pulse, respiration, and blood pressure*
Safe practices	*Recognize safety color designations*
Equipment, tools, & materials	*Identify different grades of plywood*
Mathematical applications	*Calculate revolutions per minute*
Science application	*Recognize physical principles associated with torque*
Specification interpretations	*Interpret a lubrication service manual*
Occupational terminology	*Recognize medical abbreviations*
Occupational information	*Locate and use the want ads to find work*
Work habits and attitudes	*Dress appropriately for work*

5. *At this point you should have filled in the cluster/program title, the learner's name, and the task title on both sides of the module form. A blank form is included in front of the self-check evaluation section of this inservice experience.*

6. Occupational Performance Objectives. A performance objective is an observable, behavioral description of what the learner will be able to do at the completion of the instruction.

   Performance objectives will specify the individual behaviors which, when collectively demonstrated, enable the learner to perform the task. Usually included in a performance objective are:

   - the situation or conditions under which the performance will be demonstrated
   - a concise description of the performance
   - the criterion or level of successful performance to be attained

   Several examples of objectives and a general format for developing performance objectives are presented in the example modules. Specific criterion or performance levels are not included in the objective itself, but are incorporated in the monitoring and evaluation system to be described later. A general condition statement is provided at the top of the column. More specific condition statements can be written for individual modules if necessary.

   As suggested earlier the tasks identified in the Career Cluster Analysis (Experience No. IV.2, Module 4) should serve as the task titles for each module. That is, for each task that was identified in the Career Cluster Analysis, an instructional module should be developed. Performance objectives for the module then should focus on the task knowledges and task skills which were identified as the major elements of the task in the Detailed Instructional Analysis.

7. *At this point, you should stop and list the specific occupational performance objectives the learner will attain. The objectives should represent the skills and knowledges needed to perform the task.*

8. Basic Skills/Concepts. Once the task is identified and the performance objectives stated, the basic skills associated with the task can be identified. The basic skills or concepts are an extremely critical part of the instructional plan for a special needs learner. They identify the basic competencies or abilities that the learner will need in order to learn and/or perform the task. Thus, they indicate areas of basic competency that need to be "developed," either during or before the instructional experience, in order for the learner to successfully perform the task.

Basic Skills as Prerequisite Skills: In one sense basic skills can be viewed as those skills which learners must have before they can undertake the learning of a task. This view suggests that certain developmental levels must be reached before learners can be expected to successfully undertake and complete learning experiences which require higher levels of ability. Certainly this is reasonable and logical in situations where there are gross differences between the developmental levels in question. For example, it is obvious that auditory acuity (hearing) is a needed competency or basic prerequisite if one expects to learn to take a patient's blood pressure (given the current medical technology for this procedure).

The problem with this notion of prerequisite competencies is that, in most instances, it is extremely difficult to determine which competencies are *really* prerequisite to learning a given task or concept. General patterns of motor development, socialization, and language development have been noted by child psychologists and others who have studied human development. Within any of these "general" patterns of development, however, certain sequential stages may not occur in the same sequence nor at the same age for all individuals. For example, some children learn to walk at ten months, others walk at 16 or 20 months.

It is difficult to predict with precision exactly what level of basic skill competency one needs to have attained in order to successfully learn a given task. Therefore, there is room to suggest that if the prospective special needs learner has attained certain *minimal* competencies which are important for task performance, that should be sufficient to permit the learner to initiate the instructional module. In all likelihood, if the special needs learner is recommended for placement in an occupational program, the specialists and professionals who are suggesting this placement can substantiate that he has attained at least minimum levels of competence in the areas critical to vocational education.

Basic Skill Enhancement or Refinement: Basic skills and concepts can also be viewed as abilities which are to be further developed and refined through occupational experiences. Perceptive teachers and coordinators will view occupational instruction, such as "tuning-up a two-cycle gasoline engine," as an opportunity to also increase the learner's basic skill in reading comprehension. It has been demonstrated in many instances that many special needs learners have poor reading comprehension, and they find traditional methods of reading instruction to be uninteresting. If, however, a learner is enthusiastically involved in servicing a lawn mower engine, he may be motivated to read when he realizes the information he needs to complete his project must be obtained by reading and comprehending accurately the information in a service manual.

Categories of Basic Skills/Concepts: Form V.1.3 on the following pages presents the Basic Skill and Concept Index. The Index is divided into eight major areas of basic skills and concepts that can be readily learned or reinforced through occupational instruction. Within the eight major areas, a total of 76 specific concepts and skills are identified. Although the Index is extensive, it is not necessarily complete. You may find it necessary to add basic skills and concepts as you develop modules for your special needs learners or new occupational programs.

[*RESOURCE MATERIAL: Basic Skill and Concept Index, Form V.1.3*]

The Index is designed to be used as a reference or resource. Once the occupational performance objectives have been specified, they should be closely reviewed to determine the basic skills/concepts required in each performance. As the objectives are reviewed, certain skills and concepts will appear obvious. Measuring distance and size can readily be seen as a basic skill for laying carpet, for example. Other skills and concepts can be identified by referring to the Index.

The specific skills and concepts for each objective should be listed opposite the objective in the center column on the front of the module form.

It is important to note that not all objectives will have basic skills/concepts. For example, in the example module, "Apply for a social security card," (Form V.1.2(d)) there are no basic skills/concepts listed for the first objective which says the learner will "choose to apply for social security card." This objective emphasizes an attitude that the instructional team is attempting to convey. While affective (attitude) objectives are highly important, they usually do not require basic skills/concepts similar to those listed in the Index.

9. *After having read Guideline No. 8 you should now be ready to list the basic skills/concepts for your module. Remember, review each objective closely for the basic skills/concepts which are included, then write the name(s) of the basic skill(s)/concept(s) opposite each objective in the center column.*

BASIC SKILLS AND CONCEPTS INDEX

Major Areas of the Index

Major Area	Definition
Quantitative/Numerical Skills	Involves the ability to count, record, perform basic arithmetic processes, measure and otherwise use or manipulate numerical information.
Verbal Skills	Involves the ability to communicate in written and spoken forms.
Cognitive Skills	Involves the ability to follow instructions, remember, sequence information, plan, organize, and make decisions.
Perceptual Skills	Involves the ability to accurately perceive colors, forms, space, sounds, and odors.
Language Skills	Involves the ability to listen, understand, and express oneself using written and oral forms of language.
Psychomotor/Physical Skills	Involves the ability to coordinate and perform physical movements.
Social Skills	Involves the ability to interact with others and act independently in an acceptable manner.
Occupational Interests and Aptitudes	Involves the ability to determine one's occupational likes and dislikes and to adjust to changing work situations.

BASIC SKILL AND CONCEPT INDEX[1]

Area: Quantitative/Numerical Skills

01	Counting and Recording	*Reads, counts, and/or records numerical information accurately*
02	Cardinal Numbers	*Reads, interprets, and writes cardinal numbers up to four digits*
03	Ordinal Numbers	*Reads, interprets, and writes ordinal numbers up to four digits*
04	Addition/Subtraction	*Performs simple addition and subtraction computations accurately*
05	Multiplication/Division	*Performs simple multiplication and division computations accurately*
06	Measurement	*Perform or interprets the following measurements correctly and accurately* *a. Distance-size* *b. Weight-volume-balance* *c. Liquids-solids* *d. Time (measurement of)* *e. Temperature-pressure-humidity* *f. Torque* *g. Electrical units* *h. Vertical-horizontal* *i. Degrees of a circle (angularity)*
07	General Numerical Usage	*Recognizes and applies meaning to zip codes, social security numbers, street addresses, etc.*
08	Fraction	*Reads, interprets and uses common fractions, e.g. 1/2, 1/4, 1/3, etc.*
09	Money	*Recognizes common denominations of coins and bills and can make change accurately*
10	Roman Numerals	*Read, interprets, and writes common roman numerals*
11	Approximations	*Estimates and judges distances, height, weight, or size accurately*
12	Configuration	*Discriminates differences in shape, form, texture, and size*

Area: Verbal Skills

13	Reading	*Reads with comprehension at the 5th grade level or above*
14	Spelling	*Spells common words accurately*
15	Recording Information	*Maintains accurate records of performance on production*
16	Verbal Communication	*Uses words effectively when asking or responding to questions*
17	Written Communication	*Writes a series of sentences on a given subject*
18	Match and Differentiate	*Discriminates accurately between items which are similar and dissimilar*
19	Form Completion	*Provides complete information on common forms, e.g. social security card application.*
20	Telephone Communication	*Uses the telephone to obtain information*
21	Accuracy	*Checks, when necessary, to be sure that task was performed accurately*

[1] Adapted from: Hemenway, R., et al., *Learner-Behavior-Task Rating Scale.* Illinois State University, January, 1975; Reynolds, M.L. et al., *Task-Related Competencies.* Central Michigan University, 1974; and U.S. Department of Labor. Dictionary of Occupational Titles. Third Edition. Washington D.C.: Government Printing Office, 1965.

Area: Cognitive Skills

22	Retention	*Remembers critical information such as names, locations, procedures, etc.*
23	Sequencing	*Processes information accurately for determining an appropriate order or sequence for objects*
24	Attentiveness	*Concentrates on a task and is not easily distracted*
25	Planning Ability	*Plans ahead for completion of a task*
26	Organization	*Approaches problems in a systematic manner*
27	Decision-making	*Selects from among alternatives independently*
28	Follow Verbal Instructions	*Understands spoken instructions containing more than one idea*
29	Follow Written Instructions	*Reads and follows written instructions as communicated by signs, safety labels, procedure manuals, etc.*
30	Mechanical Aptitude	*Demonstrates a working knowledge of mechanical principles (e.g. levers, inertia, motion, etc.)*
31	Perseverence	*Sees the task through to completion*
32	Transfer	*Uses information gained from previously learned skills to a new task*

Area: Perceptual Skills

33	Auditory Discrimination	*Makes fine distinctions from sound cues, and recognizes normal and abnormal sounds.*
34	Form Perception	*Sees details of objects, graphs, pictures and can compare difference in size and shape*
35	Form Discrimination	*Recognizes differences between a variety of forms (two dimensional), solid shapes, sizes, and textures.*
36	Space Perception	*Recognizes forms and objects in their spatial relationships accurately.*
37	Color Discrimination	*Recognizes primary colors, sees differences and similarities between shades*
38	Touch Discrimination	*Determines size, shape, temperature, moisture content, or texture by means of touch.*
39	Perceptual Information	*Obtains information through sight, shape, size, distance, motion, color, and other unique characteristics*
40	Olfactory Discrimination	*Differentiates a variety of smells*

Area: Language Skills

41	Listening	*Listens attentively and for the purpose of remembering when others are talking*
42	Grammar	*Uses appropriate grammatical expressions in sentence form.*
43	Technical vocabulary	*Recognizes and comprehends technical vocabulary words at a level sufficient for educational and social communication*
44	Nonverbal expression	*Reacts to voice tone, inflection, facial expression, choice of words, and gestures, and recognizes emotions and feelings.*
45	Generalizing	*Draws conclusions makes accurate assumptions from receptive language*
46	Classification	*Classifies meaningful language symbols, e.g. principal and bosses are authorities*

Area: Psychomotor/Physical Skills

47	Physical strength (check the appropriate level)	*Uses physical strength to lift, carry, push, or pull objects in a variety of work situations:* a. *Sedentary work (mostly sitting and required to lift a maximum of 10 pounds)* b. *Light work (considerable standing or walk or work movements while sitting and required to lift up to 20 pounds)* c. *Medium work (many work movements while sitting and required to lift up to 50 pounds)* d. *Heavy work (required to lift up to 100 pounds and/or carry up to 50 pounds)* e. *Very heavy work (required to lift over 100 pounds)*
48	Hand-eye Coordination	*Coordinates movements of eyes and hands, and fingers rapidly and accurately*
49	Eye-hand-foot Coordination	*Coordinates feet and hands in response to visual or auditory cues.*
50	Bi-manual Coordination	*Coordinates the use of both hands efficiently*
51	Manual dexterity	*Moves and coordinates hands with skill and ease in placing and turning motions; uses common hand tools.*
52	Reaching, Grasping	*Reaches and grasps objects, adequately using upper extremeties*
53	Finger dexterity	*Manipulates small objects with fingers rapidly and accurately*
54	Mobility	*Walks or moves to appropriate locations with little or no problem.*
55	Equilibrium	*Maintains body equilibrium to prevent falling or stumbling when walking, standing, running or crouching*
56	Kneeling, Climbing, Crawling	*Demonstrates good use of lower extremeties and body muscles in body movement*

Area: Social Skills

57	Social acceptance	*Likes and is sought out by peers*
58	Sociability	*Participates actively in group activities; seeks out friends*
59	Sensitivity	*Expresses feelings of warmth toward others; is sensitive to feelings and needs of others*
60	Social invisibility	*Blends in with groups and activities smoothly; exhibits behavior appropriate to the circumstances*
61	Cooperativeness	*Cooperates with peers and others for the accomplishment of a group task*
62	Appropriate behavior	*Does not exhibit inappropriate gestures, verbalizations, actions, mannerisms, etc.*
63	Character	*Considered dependable by peers and others.*
64	Punctuality	*Is on time regularly for activities and events; accepts responsibility for tardiness*
65	Self-initiation	*Initiates work on task promptly and without being directed to*
66	Responsibility	*Assumes and carries out tasks in a responsible manner*
67	Attentiveness	*Listens to directions; follows instructions; attends to task as required*
68	Conformity	*Accepts rules and regulations whether or not he/she agrees with them*
69	Seeks Help	*Requests assistance from others and/or peers when encountering difficulty*
70	Distractibility	*Stays on task when others are nearby or after experiencing non-work related problems.*
71	Loyalty	*Never or rarely complains about peers, teachers, others, or tasks*
72	Appearance	*Dresses appropriate to the situation; well groomed*
73	Absence of supervision	*Works at a consistent rate when unsupervised; works well without direct, continious supervision*
74	Safety	*Demonstrates a concern for and takes appropriate action to maintain safe conditions*

Area: Occupational Interests and Aptitudes

75	Work adjustment capability	*Adjusts to and performs tasks under the following conditions:* *a. frequent changes in duties* *b. assignment of specific tasks which seldom require independent action or judgment* *c. working apart from others* *d. stressful, unexpected or risk taking situations* *e. making judgements and decisions on subjective criteria, e.g. feeling, common sense.*
76	Occupational interests	*Prefers involvement in activities that:* *a. Involve things and objects* *b. Are routine and nonsense* *c. Involve people and inter-personal communication* *d. Are scientific or technical* *e. Are abstract or creative in nature* *f. Involve processes and machines* *g. Result in tangible, productive satisfaction*

10. Basic Skill/Concept Content. The third major component of the module outlines the specific instructional content which is related to the basic skills/concepts that have been specified. This section of the module will identify specifically those things that the special or basic education instructor can directly focus on when providing supportive instruction.

The best way to describe this section of the module is to discuss an example. Form V.1.3(c) (page 197-198), which is one of the example modules developed for Claude, focuses on the task of "handling credit card transactions." The final performance objective requires the basic skills of numerical use and telephone communciation in order to verify credit ratings. In the Basic Skill/Concept Content column the specific numerical and telephone skills for this task are clearly identified. In order for the supportive teacher to remediate the basic skills and concepts, it is necessary for additional information (such as knowing that the learner must interpret calendar dates in numerical form) be provided.

Identifying the specific content for the basic skills/concepts helps the instructional team become fully aware of the scope and nature of the task. This leads to a clearer understanding of what the occupational task actually involves, and provides some meaningful, relatable content for all members of the instructional team to teach.

As a rule, if a basic skill/concept is identified for a given occupational performance objective, there should be at least one phrase or statement which provides specific instructional content for teaching or remediating the basic skill/concept.

11. *You should now refer back to the instructional module which you are developing and list the basic skill/concept content for each basic skill/concept.*

12. Instructional Activities. Now we are ready to examine the back or reverse side of the mdoule format. Instructional activities represent the major component of the instructional module format on this side. *An instructional activity, as the term will be used here, describes the learner and teacher activities which will be used in conveying the instructional content outlined by the performance objectives and basic skill/concept content.*

The teacher and learner activities which focus on the occupational instruction (performance objectives) are identified on the left side of the form, while the teacher and learner activities focusing on the basic skill/concept content are listed on the right side of the form. These teacher and learner activities describe the interaction which will occur during instruction between the teachers, learner, other learners, and instructional media and materials.

The instructional activity outlines a *variety* of learning events which might be appropriate for the special needs learner and his occupational and special education teachers. It is important that special and occupational personnel be collectively involved in selecting and planning the instructional activities. Special educators can provide numerous trips and suggestions for teaching the special needs learner which occupational educators will find helpful when implementing specific instructional activities.

Types of Instructional Activities: This inservice module has pointed out the vast individual differences that special needs learners exhibit. They vary tremendously in the nature of their learning characteristics and learning styles. Therefore, one of the basic principles in designing instructional activities is to utilize activities and methods which are multi-sensory. A battery of different multi-sensory techniques should be used to take advantage of individually-unique learning styles.

Effective teachers use an arsenal of different instructional activities which employ the multi-media, multi-sensory approach to learning. Johnson and Johnson (1970) have identified 25 general types of instructional methods or teacher/learner activities. Form V.1.4 on the following page lists and provides a brief description of each of these methods as they are referred to by Johnson and Johnson.

[*RESOURCE MATERIALS: General Methods of Instruction, Form V.1.4*]

This list of general instructional methods can be used as a reference or resource in selecting activities for individual students. When an instructional activity is selected, however, it must be tailored to both the instructional content and the learner. In order to do this, short descriptive statements have to be written describing the specific teacher-learner-media instructional involvements.

You will note that the activity statements do not spell out a specific step-by-step procedure for instruction. The instructional activity statements which are developed should be viewed as tentative, suggested teaching strategies. It is of primary importance that several different activities be planned, and that selection and actual use of one or more of these activities will depend upon: (1) the interest or motivation of the learner, and (2) various situational constraints, such as the availability of instructional materials, etc.

Numerous types of instructional activities which are appropriate for special needs learners can be found in the example modules which were presented earlier.

GENERAL METHODS OF INSTRUCTION

Comparative Analysis – A thought process, structured by the teacher, employing the description, classification, and analysis of more than one system, group, or the like so as to ascertain and evaluate similarities and differences.

Conference – A one-to-one interaction between teacher and learner where the individual's needs and problems can be dealt with. Diagnosis, evaluation, and prescription may all be involved.

Demonstration – An activity in which the teacher or another person uses examples, experiments, and/or other actual performance to illustrate a principle or show others how to do something.

Diagnosis – The continuous determination of the nature of learning difficulties and deficiencies, used in teaching as a basis for the selection – day by day or moment by moment – of appropriate content and methods of instruction.

Directed Observation – Guided observation provided for the purpose of improving the study, understanding, and evaluation of that which is observed.

Discussion – An activity in which pupils, under teacher and/or pupil direction, exchange points of view concerning a topic, question, or problem to arrive at a decision or conclusion.

Drill – An orderly, repetitive learning activity intended to help develop or fix a specific skill or aspect of knowledge.

Experimentation – An activity involving a planned procedure accompanied by control of conditions and/or controlled variation of conditions together with observation of results for the purpose of discovering relationships and evaluating the reasonableness of a specific hypothesis.

Field Experience – Educational work experience, sometimes fully paid, acquired by pupils in a practical service situation.

Field Trip – An educational trip to places where pupils can study the content of instruction directly in its functional setting, e.g., factory, newspaper office, or fire department.

Group Work – A process in which members of the class, working cooperatively rather than individually, formulate and work toward common objectives under the guidance of one or more leaders.

Laboratory Experience – Learning activities carried on by pupils in a laboratory designed for individual or group study of a particular subject-matter area, involving the practical application of theory through observation, experimentation, and research, or, in the case of foreign language instruction, involving learning through demonstration, drill, and practice. This applies also to the study of art and music, although such activity in this instance may be referred to as a studio experience.

[1] Johnson, S.R. and Johnson, R.B., Developing Individualized Instructional Material. Palo Alto, Calif.: Westinghouse, 1970.

Lecture – An activity in which the teacher gives an oral presentation of facts or principles, the class frequently being responsible for note taking. This activity usually involves little or no pupil participation by questioning or discussion.

Manipulative and Tactile Activity – Activity by which pupils utilize the movement of various muscles and the sense of touch to develop manipulative and/or perceptual skills.

Modeling and Imitation – An activity frequently used for instruction in speech, in which the pupils listen to and observe a model as a basis upon which to practice and improve their performance.

Problem-Solving – A thought process structured by the teacher and employed by the pupils for clearly defining a problem, forming hypothetical solutions, and possibly testing the hypothesis.

Programmed Instruction – Instruction utilizing a workbook or mechanical and/or electronic device which has been "programmed" to help pupils attain a specified level of performance by (a) providing instruction in small steps, (b) asking one or more questions about each step in the instruction and providing instant knowledge of whether each answer is right or wrong, and (c) enabling pupils to progress at their own pace.

Project – A significant, practical unit of activity having educational value, aimed at one or more definite goals of understanding and involving the investigation and solution of problems.

Reading – Gathering information from books, periodicals, encyclopedias, and other printed sources of information, including oral reading and silent reading by individuals.

Recitation – Activities devoted to reporting to a class or other group about information acquired through individual study or group work.

Role-Play – An activity in which students and/or teacher take on the behavior of a hypothetical or real personality in order to solve a problem and gain insight into a situation.

Seminar – An activity in which a group of pupils, engaged in research or advanced study, meets under the general direction of one or more staff members for a discussion of problems of mutual interest.

Sensitivity Training – An activity in which a group and a trainer meet to self-consciously examine their immediate feelings and perceptions about themselves and each other in order to gain skill in authentic communication, leadership, behavioral flexibility, or social sensitivity.

Shopwork – An activity emphasizing skill development through experience in woodwork, metal work, or other industrial processes and procedures.

Skill Practice Session – An activity in which pupils have opportunity to put into practice those skills and understandings previously learned through other instructional activities.

Special Teaching Activities/Techniques: In recent years a number of special instructional techniques have emerged in the field of special education which are extremely helpful in outlining instructional activities. The strategies, techniques, and procedures listed in Form V.1.5 are abstracted from Smith's (1974) text on clinical teaching and are most appropriate for learners who might be traditionally classed as mildly retarded, emotionally disturbed, or learning disabled.

[*RESOURCE MATERIAL: Special Teaching Activities and Techniques, Form V.1.5*]

13. *After reviewing the suggested instructional methods and techniques presented in Forms V.1.4 and V.1.5, you should now be ready to list the instructional activities to be used in your module. If possible, both the occupational and special or basic education teachers should be cooperatively involved in listing the instructional activities.*

14. Instructional Resource Materials. It is extremely difficult to consider the selection and use of instructional materials separate and apart from the instructional activities. At times, the availability of certain materials will dictate the selection of a particular activity. More often, however, the selection of a particular activity will imply the use of certain instructional materials.

The instructional resource materials section of the module is designed to identify the instructional materials which will be needed to implement the suggested instructional activities. Three items of information are required in identifying the instructional resource materials: title/name of the material, the media (i.e., film loop, transparency, etc.), and the source reference which describes where the materials can be obtained.

A variety of different types of instructional media will be required in implementing different instructional activities. Here again, the emphasis is on selecting and using instructional materials of differing types. Form V.1.6 lists several different types of instructional materials of media, and identifies the sensory modes which each materials/media utilizes. With most special needs learners who are integrated into regular school programs at the secondary level, experience has shown that those media which utilize multi-sensory learning modes generally tend to be the most effective.

[*RESOURCE MATERIAL: Types of Instructional Media/Materials, Form V.1.6*]

Most of the instructional resource materials that are identified will be used by the learner(s). Since many of these instructional materials will come from the field of occupational education it is important that they be carefully reviewed by both the occupational and special education teachers to examine their appropriateness for special needs learners. In many instances, the emphasis will be placed on using materials which communicate very basic concepts at a level which the learner can readily comprehend. Care should be taken to select only instructional materials that are available such as the FOG Index for determining reading level. Inservice Experience VI.1 in the next module describes the use of the FOG Index and general considerations for evaluating instructional materials.

As occupational and special teachers collectively plan the instructional strategies and materials to be used, an interesting interaction takes place. As the planning discussions continue, the special/basic education teacher or remediation specialist begins to learn more and more about the nature of the task which the student is or will be learning. This happens as a natural outgrowth of the occupational teacher's explanation and description of how he/she teaches the task, and the materials he/she generally uses. As this interaction continues, the special or basic education teacher can begin to identify, and further refine the basic skills/concepts needed to perform the task. Through reviewing the occupational materials and planning discussions with the occupational teacher, the special or basic education teacher can readily identify the basic competencies and concepts which he/she can teach and meaningfully relate to the occupational instruction the learner will be receiving.

Sources of Instructional Materials: Recently, publishers and teachers have begun to develop vocational materials for special needs learners. Listed below are three directories which should be consulted to locate instructional materials in a wide variety of vocational program areas.

- Vocational Instructional Materials for Students with Special Needs
  by D. C. Towne and S. Wallace
  Available from: Northwest Regional Educational Laboratory
  700 Lindsay Building
  710 S.W. Second Avenue
  Portland, Oregon 97204

- Vocational Education Resource Materials for Special Education
  by R. H. Lambert, L. W. Tindall, and others
  Available from: Center for Studies in Vocational-Technical Education
  University of Wisconsin
  Madison, Wisconsin

- Learning Resource Directory
  by Westinghouse Corporation
  Available from: Local libraries and instructional materials centers

SPECIAL TEACHING ACTIVITIES AND TECHNIQUES

A. *Reinforcement of Desired Behavior* - providing immediate and appropriate reinforcement following a behavior that is to be increased or strengthened.

- Use a token system, punch card, or green-stamp system to provide an on-going reward/reinforcement system.
- When teaching new skills, reinforce the learner's correct response on every occasion.
- Reinforce reasonable degrees of progress toward the final goal.
- To eliminate undesirable behaviors, competing or incompatible behaviors must be found and introduced. As these contending behaviors occur, the positive one(s) should be heavily reinforced.
- Certain behaviors can be changed simply by removing certain negative conditions or inhibitors. It is important to be aware of these factors and remove the ones necessary to expand and strengthen desired behaviors.
- After a behavior has become established, changing the reinforcement from a regular to variable-ratio schedule will assure its stability.

B. *Exercise* - opportunities to repeat and practice experiences in a variety of ways.

C. *Distributed Practice* - practice in learning concepts and most other material should be spread out, or varied according to the characteristics of each student as well as the nature of the material.

D. *Active Participation* - active involvement in a task readily facilitates learning, and has several advantages:

(1) it focuses the learner's attention on the task at hand,

(2) it fosters greater efficiency in learning,

(3) it provides a dynamic source of feedback, and

(4) it gives more opportunities for meaningful reinforcements for desired behavior.

E. *Overlearning* - practicing a task beyond the point of initial mastery. Improvement in learning, retention, transfer, and relearning will be facilitated by overlearning.

F. *Stressing Accuracy* - stressing accuracy instead of speed will reduce the chance of learners practicing errors. This is especially important in learning of new material and basic concept formation.

G. *Minimal Change* - shifts in concepts and instructional content focus should be as minimal as possible. Retention and continuity of generalization can be maintained if the progressive steps are small and blended together well.

H. *Utilizing the Learner's Strengths* - it is important to utilize the learner's strengths (e.g., manipulative skills) to enhance development of weaker areas (e.g., quantitative reasoning).

TYPES OF INSTRUCTIONAL MEDIA/MATERIALS[1]

MEDIA	PROBABLE LEARNING SENSATIONS					
	Vis.	Aud.	Tac.	Kin.	Ole.	Sav.
Demonstration with real objects/materials	x	x	x	x	x	x
3-D models - mockups	x	x	x	x	x	x
Games - Simulators	x	x	x	x	x	x
Sound/Slide Programs	x	x				
Filmstrip - Cassette/Record	x	x				
TV - Broadcast, Closed Circuit	x	x				
Video and/or Audio Recorder	x	x				
Film, 16mm - BW/Color, Sound	x	x				
Film loop, 8mm	x					
Filmstrip	x					
Slides	x					
Overhead transparencies	x					
Books, magazines, texts, booklets	x					
Pamphlets, brochures, manuals, workbooks	x					
Newspapers, cartoons	x					
2-D Displays, charts, graphs, posters	x					
Drawings, photographs, schematics, maps	x					
Opaque projectuals	x					
Telephone, intercom		x				
Other, specify						

[1] Reynolds, M.L. et al. Occupational Cluster Guides. Mt. Pleasant: Vocational Education/Special Education Project, Central Michigan University, 1973.

15. *As the final step in developing your instructional module, should now be ready to list the instructional materials you plan to use. Keep in mind the guidelines and suggestions listed above as you proceed.*

16. Learner Progress Columns. The final component needed in the instructional module is a means for keeping track of how individual learners do in learning the task. Some mechanism is necessary whereby the occupational and special education members of the instructional team can monitor the learner's progress toward attainment of the performance objectives and basic skills in the module.

Module 1 emphasized the need for continuous re-evaluation of the learner's achievement as well as various aspects of development. Emphasis has also placed upon developing performance objectives which would describe in observable, measurable terms what the learner would be able to do. Both of these concerns can be easily incorporated in the instructional module we have been building.

Please refer to the example modules or the blank module form which you have been filling in. You will notice there are two narrow columns marked "progress" on opposite ends of the front side of the form. A four-column format is used on the left side for the occupational performance objectives, while a three column arrangement is provided on the right for the basic skill/concept content. As the learner moves toward attaining the performance objectives and basic skills, teachers can monitor his/her progress by placing checks or dots in the appropriate columns.

Although three and four progress levels are used on the module format presented here fewer labels could be used if the form were modified. Different lables for the levels could also be developed to suit the instructor's preference.

The levels of progress should be described in behavioral terms elsewhere. As shown in Form V.1.7, the labels should provide a qualitative or quantitative indication of how well the objective or basic skill was attained. This operational definition of each of the levels is important for communicating among instructional staff and with parents and employers regarding the learner's progress.

[*RESOURCE MATERIAL: Learner Progress Level Descriptors, Form V.1.7*]

A Progress Monitoring System: Finally, it should be pointed out that the learner progress monitoring columns are part of a progress monitoring system that is further described in other modules. You will recall that Module 1 presented and discussed the Learner Analysis Profile which assessed the learner's basic skills in several areas, such as verbal skills and quantitative skills. The progress information describing the learner's attainment of the basic skills/concepts should be used to

revise and update the Learner Analysis Profile on a regular basis.

Techniques for compiling and reporting the learner's progress for several modules will be described in Module 7 which follows. In Module 7 the development of a Learner Performance Record which compiles data from the monitoring columns of the instructional module, is outlined. The Performance Record is used to communicate pertinent information to parents, employers, and future teachers describing what the student has learned to date.

LEARNER PROGRESS LEVEL DESCRIPTORS

Occupational Performance

- *Introduced - the student/learner has become acquainted with the general task, as well as its function and/or purpose through previous experiences or instruction. However, the learner has not yet begun to develop or demonstrate any significant, recognizable competency in performing the task.*

- *Involved - the student/learner has begun to develop and/or demonstrate minimal competence in performing a few selected parts (subskills) of the task.*

- *Productive - the student/learner has developed and/or demonstrates a minimal level of competence in performing several parts (subskills) of the task. The student/learner would be employable in specialized, entry level occupations requiring only minimal skills.*

- *Employable - the student/learner has developed and/or demonstrates a level of competency which would make him/her employable in a normal, competitive work setting.*

Basic Skills/Concepts Content

- *Introduced - the student/learner has become acquainted with the basic skill or concept through previous experience and/or instruction.*

- *Developing - the student/learner has demonstrated some capacity to perform the basic skill, and/or interpret and apply the basic concept.*

- *Competent - the student/learner is capable of accurately and repeatedly performing the basic skill, or interpreting and applying the basic concept.*

CLUSTER/PROGRAM:

Form V.1.2
Reproduction Master

Task:

Id. No.: _____

Learner: _____

Progress				Occupational Performance Objectives
Introduced	*Involved*	*Productive*	*Employable*	
				Given the necessary tools, materials, equipment, and requisite knowledge, the learner will:

Basic Skills/ Concepts	Basic Skill/Concept Content	Progress		
		Introduced	*Developmental*	*Competent*

CLUSTER/PROGRAM:

Id. No.: _____ Task:

OCCUPATIONAL INSTRUCTION	BASIC SKILL/CONCEPT INSTRUCTION
Teacher Activites:	*Teacher Activities:*
Learner Activities:	*Learner Activities:*

INSTRUCTIONAL RESOURCE MATERIALS

Name/Title	*Media*	*Source*	*Name/Title*	*Media*	*Source*

Self-Evaluation Checklist

Inservice Experience V.1: Developing Instructional Modules

Directions: Rate each of your completed instructional modules (Form V.1.2) against each of the following items by circling the appropriate number in the three-point scale, or checking (√) the appropriate blank. Upon completion of the checklist, you will want to expand or revise your modules as suggested by the evaluation. All responses should be "yes" or "3".

1.	Career cluster specified		_____yes	_____no	
2.	Instructional program specified		_____yes	_____no	
3.	Name of learner identified		_____yes	_____no	
4.	All module components completed		_____yes	_____no	
5.	Task is not stated in performance terms	1	2	3	A behavioral or performance "task" statement is provided
6.	Performance objectives are not observable or measurable	1	2	3	Performance objectives are observable, measurable
7.	Performance objectives are overly specific	1	2	3	Performance objectives are too general, broad
8.	All basic skills/concepts are not identified for the appropriate objectives	1	2	3	Basic skills/concepts are identified for each appropriate objective
9.	Basic skill/concept content is only superficially identified	1	2	3	Basic skill/concept content is specific and comprehensive
10.	Basic skill/concept content is limited to one area (e.g., math skills)	1	2	3	Basic skill/concept content covers several areas (e.g., language, math, etc.)
11.	Instructional activities reflect only a single method of instruction	1	2	3	Instructional activities are multi-media in nature
12.	Special teaching techniques are not mentioned	1	2	3	Specialized teaching techniques (e.g., overlearning) are incorporated in the instructional activities
13.	Instructional materials involve single media approach (e.g., reading only)	1	2	3	The listed instructional materials are multi-media and multi-sensory

Comments:

Suggestions for Modification of the Instructional Module:

INSERVICE EXPERIENCE V.2:

SEQUENCING INSTRUCTION

Learning occurs over time. The sequence of events through which learning occurs is "planned" in most educational programs. In some instances, however, the instructional planner may not always consider or analyze alternative sequences for providing instruction. Often the sequence of instruction is established from the teacher's previous experience in teaching the course or a particular unit. These previous experiences may or may not reflect several critical principles of sequencing instruction for special needs learners, nor are they likely to reflect a "variety of different sequences" which may be necessary in instructing selected special needs learners.

The problem of sequencing instruction can be defined at two levels. The initial problem is determining which general sequence of tasks (instructional modules) included in the course is most appropriate and effective. Once this question is resolved, the question of how shall the component skills in each module be presented must be addressed. This inservice experience will focus, for the most part, on the first problem, that of sequencing modules or units of instruction. However, many of the principles of instructional sequencing will also apply to the sequencing of subordinate or component skills within the module.

Guidelines and Suggestions

The following general principles for sequencing of occupational instruction modules are presented by Mager and Beach (1967), and serve as an excellent framework for considering sequencing problems. Depending

upon the specific learning styles of selected special needs learners, certain of these principles may be more important than others.

After reading this set of guidelines you will be asked to identify a series of sequences you would consider in teaching several different modules.

1. *Interest Sequencing:* Motivation for learning is a fundamental problem for many disadvantaged and handicapped learners. Thus, one of the basic sequencing principles involves selecting instructional modules the learner is highly interested in when beginning instruction. The most efficient, and often the most effective, means of determining a learner's interests prior to instruction is to hold a series of short, informal discussions with the learner and/or the parents. Sequencing of instruction based specifically on learner interests is essential until the learner begins to realize the "spin-off" tasks, concepts, and skills which are related in some manner to his major occupational or vocational interest. Once a learner's awareness and interest have broadened to include the related areas of the course, it is appropriate to consider other criteria for sequencing instruction. The following is a brief case study describing how the interest sequencing principle is used.

   Illustration: Jamie approached his welding teacher on the first day of class expressing his urgent need to repair the kickstand on his motorcycle. That afternoon during his planning period the welding teacher and Jamie met in the lab. In 20 minutes, the instructor used the crack in the kickstand bracket to introduce Jamie to the basic principles of arc welding, certain safety precautions, and several other concepts by repairing the bracket with Jamie's close supervision. By capitalizing on Jamie's immediate and intense interest, the instructor was later able to introduce Jamie to a variety of skills related to arc welding, many of which also encouraged him to improve his reading and writing skills.

2. *Logical Sequencing:* In certain instances the nature of the subject matter will dictate that one instructional module be taught before another. For example: one must be able to read a thermometer prior to charting a patient's temperature. However, the decision as to which tasks or concepts are absolutely prerequisite to others is seldom that simple. Generally, there is not nearly as much reason for logical sequencing as most teachers would like to believe. It should be realized that an individual does not necessarily have to understand the thermo-physical principles of arc welding before he/she can repair a bracket; nor does one have to be able to add three column numbers manually before he can compute a billing if a calculator is used.

Illustration: Tasks that involve trouble-shooting or identification and diagnosis of service problems are usually taught by logical sequencing. Jan, a physical handicapped student, was attempting to follow the basic trouble-shooting procedure outlined in a programmed instructional text for her introductory electronics course. The suggested procedure was based on inductive logic. That is, she was attempting to locate problems in the branches of individual circuits before testing each of the major circuits. Her instructor recommended that she use the alternative trouble-shooting procedure based on deductive logic which was more appropriate to the task of locating a bad component in a complex circuit board. This procedure enabled her to "narrow down" the location of the bad component by testing the major circuits first.

3. *Skill Sequencing:* Sequencing instructional units in a skill development pattern is more appropriate for vocational programs than practical arts programs. Skill sequencing has been utilized extensively in programs where singular career ladders have been viewed as the primary structure for instruction. It is especially important in short-term training programs that the person be trained for entry-level employment (e.g., auto mechanic helper) before additional instruction or training enabling him to be employable as an auto mechanic is provided.

4. *Frequency Sequencing:* Frequency sequencing is a principle which is highly consistent with the concept of career cluster analysis which was presented in Module 4. You will remember that the cluster analysis approach suggests that those tasks which are common to several occupations in the cluster should be the initial focus of the instruction. Similarly, the frequency sequencing principle suggests that those skills which are used most frequently on the job should be taught first. The modules which follow are then sequenced in order of decreasing usefulness or importance. Here again, if the training period is short, the learner will at least have those skills which he will use most frequently on the job. For example, in most service stations pumping gas is more important for a service station attendant than being able to repair three-speed transmissions.

5. *Graduated Sequencing:* There are a number of simple considerations related to graduate sequencing which have been noted by developers of programmed instructional materials. Johnson and Johnson (1970) have identified seven commonly used graduated sequences:

    1. Simple to complex
    2. Facts of generalizations
    3. Concrete to abstract
    4. Practical to theoretical
    5. Meaningful to unknown
    6. Past to present
    7. Present to future

Illustration: Helen was about to open a checking account because she had just received her first check from the school district for working as an assistant in afternoon kindergarten class. Ms. Jenkins, her learning resource room teacher, saw this as an opportunity to reinforce and perhaps further improve Helen's math skills. Once she had learned the practical aspects and importance of balancing her checkbook and keeping accurate records, the next step was to introduce units on "banking service charges" and "interest" since she had to be able to interpret these on her bank statement each month. The next concept was "borrowing money" and a discussion about how much the bank paid her in interest for keeping her money there, and how much the bank would charge her for borrowing money. By this time the sequence, which had begun with the very practical, concrete, and meaningful task of "maintaining a checking account" had progressed to the more theoretical and somewhat abstract discussion of comparing interest rates for lending and saving.

6. *Total Job Practice:* One of the potential hazards in using the modular or unit approach in developing instructional plans is that learners may never get to practice the entire job. As the component skills of a task are learned and practiced, it is important that they be integrated; that is, practiced in conjunction with the previous tasks that have been learned. As more and more tasks are learned and integrated the resulting performance becomes involved and closely replicates the more complex nature of total job performance. Mager and Beach (1967) recommend that at least 5% of the total instructional time for occupational instruction should be devoted to total job practice.

7. The Instructional Sequencing Worksheet, presented in Form V.2.1 on the following page, is designed to assist instructional personnel in reviewing different sequencing alternatives. As many as ten modules may be sequenced according to any of the sequencing criteria described above. By listing several modules and examining different sequence possibilities, the occupational and special education team can determine the sequence of modules which is most appropriate for an individual learner.

   [RESOURCE MATERIAL: Greg's Instructional Sequencing Worksheet, Form V.2.1]

8. *Using the blank sequencing worksheet which is provided, you should plan at least two sequences for implementing the modules which you developed in the previous inservice experience.*

INSTRUCTIONAL SEQUENCING WORKSHEET

Directions: In section I of this worksheet list the tasks or instructional modules the student is to be taught in the coming weeks. You can list as many as ten if you care to. Once the tasks or modules are listed, develop some alternative sequences for presenting these to the student, using the three sequencing criteria provided. This can be done readily by writing the identification numbers for each task/module in the appropriate boxes.

Learner: Greg Course: Construction Grade: 8

I. Tasks/Modules to be Taught

Id. No.	Module Title/ Task Statement	Id. No.	Module Title/ Task Statement
1	Using woodworking hand tools	6	Planning a project
2	Constructing joint samples	7	Reading blueprints
3	Selecting wood fasteners	8	Using measuring tools
4	Operating power hand tools	9	Sharpening hand tools
5	Selecting construction materials	10	Selecting finishes

II. Alternative Instructional Sequences

	Initial Task/Module									Final Task/Module
1. Student Interest Sequence	6	5	4	1	8	3	10	2	7	9

Name of Learner: Greg

Interest Sequencing Rationale: Greg is extremely interested in building a doghouse for his father's new hunting dog.

2. Graduated Sequence

Type: _____

3. Other types of relevant sequences (i.e., logical, skill, frequency, or total job practice):

1	2	7	8	6	5	4	3	10	9

Skill development

Form V.2.1
Reproduction Master

INSTRUCTIONAL SEQUENCING WORKSHEET

Directions: In section I of this worksheet list the tasks or instructional modules the student is to be taught in the coming weeks. You can list as many as ten if you care to. Once the tasks or modules are listed, develop some alternative sequences for presenting these to the student, using the three sequencing criteria provided. This can be done readily by writing the identification numbers for each task/module in the appropriate boxes.

Learner: _____ Course: _____ Grade: _____

I. Tasks/Modules to be Taught

Id. No.	Module Title/ Task Statement	Id. No.	Module Title/ Task Statement
1		6	
2		7	
3		8	
4		9	
5		10	

II. Alternative Instructional Sequences

Initial Task/Module — *Final Task/Module*

1. Student Interest Sequence

Name of Learner: _____

Interest Sequencing Rationale: _____

_____

_____

2. Graduated Sequence

Type: _____

3. Other types of relevant sequences (i.e., logical, skill, frequency, or total job practice):

_____

Self-Evaluation Checklist

Inservice Experience V.2: Sequencing Instruction

Directions: Rate your completed Instructional Sequencing Worksheet (Form V.2.1) on each of the following items by circling the appropriate number in the three-point scale or by checking the appropriate blank. After completing this evaluation, you will want to modify the planned sequences of instruction as suggested by the evaluation. All responses should be "yes" or "3".

1.	Name of learner identified:		_____yes	_____no	
2.	Tasks listed are not sufficiently related to permit sequencing	1	2	3	Tasks listed are related in content and can be sequenced
3.	Interest sequencing rationale statement is unclear	1	2	3	Interest sequencing rationale statement is clear
4.	Identified interest sequence does not reflect consideration of the student's learning style (Module 1)	1	2	3	Specified interest sequence reflects consideration of student's learning style (Module 1)
5.	Specified sequence is unrelated to a potential career interest	1	2	3	Specified sequence is related to a potential career interest
6.	Specified sequence is not based on an avocational interest	1	2	3	Specified sequence is based on an intense avocational interest

7. The graduate sequence of tasks/modules reflects:

a. Simple to complex	_____yes	_____no	_____not appropriate
b. Facts to generalizations	_____yes	_____no	_____not appropriate
c. Concrete to abstract	_____yes	_____no	_____not appropriate
d. Practical to theoretical	_____yes	_____no	_____not appropriate
e. Meaningful to unknown	_____yes	_____no	_____not appropriate
f. Past to present	_____yes	_____no	_____not appropriate
g. Present to future	_____yes	_____no	_____not appropriate

Comments:

Suggestions for Modification of the Planned Sequences:

Resource Bibliography

The following are specific references which can be reviewed for each of the inservice experiences in this module. These references will offer additional ideas, suggestions, and guidelines.

Inservice Experience V.1: Developing Instructional Modules

Gagne, R. M., and Briggs, L. J. Principles of Instructional Design. New York: Holt, Rinehart, and Winston, Inc., 1974.

Gronlund, N. E. Stating Behavioral Objectives for Classroom Instruction. New York: Macmillan, 1970.

Lambert, R. H., et al. Vocational Education Resource Materials. Madison: Center for Studies in Vocational and Technical Education, University of Wisconsin, 1975.

Mager, R. F. Preparing Objectives for Instruction. Belmont, California: Fearon Publishers, 1962.

Smith, R. Clinical Teaching. New York: McGraw-Hill, 1974.

Towne, D. C. and Wallace, S. Vocational Instructional Materials for Students with Special Needs. Portland, Oregon: Northwest Regional Educational Laboratory, 1972.

Inservice Experience V.2: Sequencing Instruction

Bailey, L. J., and Stadt, R. Career Education: New Approaches to Human Development. Bloomington, Illinois: McKnight Publishers, 1973.

Johnson, S. R., and Johnson, R. B. Developing Individualized Instructional Material. Palo Alto, California: Westinghouse Learning Press, 1970.

Mager, R. F., and Beach, K. M. Developing Vocational Instruction. Palo Alto, California: Fearon Publishers, 1967.

Popham, W. J., and Baker, E. L. Planning an Instructional Sequence. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970.

Texas A & M University. "Developing Lesson Plans." College Station, Texas: Center for Career Development and Occupational Preparation, College of Education, undated.

M O D U L E 6:

INSTRUCTIONAL IMPLEMENTATION

Implementing of instruction refers to those activities which usually follow the planning of instruction and precede evaluation of learner progress. When implementing instruction for special needs learners several considerations are critical. Determining the appropriateness of instructional materials and establishing techniques for providing feedback and reinforcement are two essential considerations. Adjusting the learning environment for physically handicapped learners and coordinating work experience programs as an extension of in-school instruction are other major considerations when implementing instruction.

Overview

When implementing instruction, occupational and special education teachers, as well as prevocational, work-study, and coop coordinators, should be concerned with: the instructional materials they are using, strategies for providing optimum feedback and reinforcement for the learners, and special considerations when placing the learner on the job for training. In addition, the modification of the learning environment to minimize the impact of physical problems on the learning process is an important area of concern.

As suggested in Module 5, utilizing a variety of different types of instructional materials is often crucial to successful remediation of learning problems for mildly handicapped students. It goes far beyond simply selecting a variety of media, however. Instructional personnel need to carefully analyze each instructional material they intend to use. Once analyzed, the characteristics of the material (such as the reading level) should be compared with the learning style characteristics (identified in Module 2) of the special needs learner which were identified in Module 1. Inservice Experience VI.1 outlines several techniques and strategies for analyzing instructional materials to be used with special needs learners.

Providing reinforcement and feedback to learners is an essential part of all teaching activity. Because special needs learners frequently exhibit atypical classroom behaviors and response patterns, it is important that the teacher be skilled in selecting and applying the correct reinforcer in special situations. A number of practical behavioral management techniques are outlined in Inservice Experience VI.2.

Special needs learners, especially those with physical problems, often encounter barriers in their educational experiences. It is important that occupational and special educators minimize the impact of physical disabilities on instructional experiences. To insure that special needs learners have full and equal access to education, often educators must modify or adapt the facilities, tools, equipment, and materials they use. Inservice Experience VI.3 offers a number of suggestions and guidelines for modifying the learning environment.

Another critical area of consideration in implementing instruction is the learner's transition from school to work. Since special needs learners have historically encountered difficulty in making this transition, a number of different work experience/work-study programs have been introduced to provide special needs learners with early and extensive opportunities to adjust to a work environment prior to their departure from school. Inservice Experience VI.4 will outline a number of considerations for managing work experience programs for special needs learners.

Rhonda: A Case Study

Rhonda is 15 years old and has been in the eighth grade for two years. Last year she was retained because her teachers and parent felt she was not prepared socially to handle high school. Although she has average abilities in nearly all areas, for the past two years (since her mother died) she has been somewhat emotionally insecure. During the first semester she was removed from two classes because of fighting and other disruptive acts. Presently, she is placed in Ms. Dooley's health careers

orientation course, physical education, and in Ms. Jenkins' resource room for three hours daily. Ms. Jenkins works with her on recognizing and respecting the rights of others, accepting direction and supervision, and getting along with others.

Earlier in the year Ms. Dooley asked Ms. Jenkins to help her evaluate the text, reference materials, and lab manual which Rhonda uses in the health careers course. After applying a readability formula and another special education materials checklist which Ms. Jenkins uses, they decided that supplementary, low-level reading materials would have to be obtained to replace the main text which contains material approximately three grade levels above Rhonda's reading level. (Inservice Experience VI.1 describes the instructional materials evaluation process used by Ms. Dooley and Ms. Jenkins).

Knowing that Rhonda would like to work part-time to have some personal spending money and help out with her family's finances, Ms. Jenkins discussed Rhonda's situation with Mr. Preston, the W.E.C.E.P. coordinator. After reviewing Rhonda's records, it appears that she will be eligible for placement in this federally-funded, part-time work experience program for potential drop-outs during the final quarter. (Inservice Experience VI.4 outlines a series of programs and considerations for planning and coordinating work experience programs for special needs learners.)

Rhonda's admittance to the W.E.C.E.P. program, however, depends upon her continued, improved performance in the health careers class and resource room. Ms. Jenkins and Ms. Dooley developed a contingency contract (which was also signed by Rhonda) indicating that before she would be placed in W.E.C.E.P. during the final quarter, she would: (1) attend all of her classes without an unexcused absence for six weeks, and (2) carry out all

of her assignments without arguing. (Contingency contracting and other reinforcement techniques are described in Inservice Experience VI.2.)

Goals

Condition: Given the responsibility to initiate and develop career-oriented educational experiences for special needs learners, upon completion of this module, the inservice participant will:

Performance Competencies:

1. Analyze instructional materials as to their appropriateness for special needs learners.
2. Provide appropriate feedback and reinforcement for desired performance by special needs learners.
3. Modify or adapt the learning environment to minimize barriers to learning for special needs learners.
4. Plan and coordinate work experience programs designed to serve special needs learners.

Inservice Experience Descriptions

This module includes four inservice experiences that are directed toward assisting occupational and special educators in implementing instructional programs. Each of the experiences is described below to assist the inservice participant in selecting those inservice experiences pertinent to their inservice needs or situation.

Inservice Experience No. VI.1: ANALYZING INSTRUCTIONAL MATERIALS

This inservice experience focuses on the assessment of one or more specific instructional materials to be used with a special needs learner. The product of this experience is a completed evaluation of the instructional material which will include, among other considerations, an assessment of the reading level of the material.

Inservice Experience No. VI.2:
PROVIDING REINFORCEMENT AND FEEDBACK

This inservice experience will introduce or re-acquaint you with a series of specific principles of behavioral management in the classroom. A contingency contract is presented and discussed as a format for operationalizing a number of behavioral management principles. In selected instances, teachers or coordinators may choose to use the contingency contract format with special needs learners who exhibit extreme behavioral problems in the school or work setting. The product of this experience is a completed contingency contract for one or more special needs learners.

Inservice Experience VI.3:
MODIFYING THE LEARNING ENVIRONMENT

Several considerations for modifying the facilities, equipment, tools, and materials are presented in this experience. The outcome of this experience is a completed worksheet which identifies the modifications needed in the educational environment for a special needs learner.

Inservice Experience VI.4:
PLANNING AND COORDINATING WORK EXPERIENCE PROGRAMS

This inservice experience presents and discusses a number of special considerations to be made by coordinators and teacher-coordinators in adapting their work experience programs to accommodate special needs learners. The outcome of this experience is a familiarization with these various unique considerations to be made in managing cooperative work experience programs for special needs learners. *NOTE: This experience is appropriate for those teachers or teacher-coordinators who either have or will have responsibility for placement and supervision of special needs learners on part-time jobs.*

Inservice Experience Selector

Following consultation with the inservice director, I (we) have decided to undertake and complete the Inservice Experiences checked (✓) below for Module 6.

_____ Inservice Experience VI.1: Analyzing Instructional Materials

_____ Inservice Experience VI.2: Providing Reinforcement and Feedback

_____ Inservice Experience VI.3: Modifying the Learning Environment

_____ Inservice Experience VI.4: Planning and Coordinating Work Experience Programs

Date: _____

School: _____

Inservice Director: _____

Participant Name(s)

_____

_____

_____

_____

INSERVICE EXPERIENCE VI.1:

ANALYZING INSTRUCTIONAL MATERIALS

Analysis of the specific instructional materials to be used with special needs learners is critical to effectively implementing individualized instruction. To be effective, instructional materials, like many of the other program components, must be individually tailored to the learning style and level of the special needs student.

Module 1 presented two inservice experiences related to assessment of learning styles. Experience I.2 focused on analysis of learning strengths and weaknesses, while Experience I.3 incorporated this assessment data in the development of a learning prescription which outlined different instructional media appropriate for the learner. As suggested by the learning prescription, a multitude of different types of instructional materials can be used with special needs learners.

Guidelines and Suggestions

The following guidelines and suggestions will be helpful in evaluating the appropriateness of teacher-made or commercially-produced instructional materials for a special needs learner. Once you have finished reviewing the following guidelines, you should select an instructional material you are currently using and evaluate it in accordance with the guidelines.

1. If the material being evaluated includes written narrative that the learner has to read, it is critical to determine the readability level of the material. Readability is defined as the relationship of the reading level of printed material to the abilities of the learner. Readable, printed materials, which could include texts, reference materials, workbooks, worksheets, classroom tests, or other forms of instructional materials, are materials which have qualities

(of format, style, and level) that match the learner's abilities. Phillips broadly interprets readability to include such factors as: legibility, interest, and ease of understanding.

2. The FOG Index (developed by Robert Gunning) has become recognized as an efficient and reasonably accurate measure of reading level of materials for the secondary level. Three simple steps are required in applying the FOG Index to determine the reading level of any instructional material:

   a. Take several samples of 100 words each, spaced evenly throughout the material. Count the number of sentences in each sample. (Stop the sentence count with the sentence ending nearest the 100 word limit.) Divide the total number of words in the sample (100) by the number of sentences. This gives you the average sentence length. Record this figure.

   b. Using the same samples, count the number of words that have three or more syllables. Do not count words that are:

      - capitalized
      - combinations of short, easy words (e.g., bookkeeper)
      - verb forms made into three syllables by adding -ed, -es (e.g., created)

      Record this number directly under the figure obtained in the first step.

   c. The FOG Index is determined by totalling the two factors just recorded (average sentence length and number of three syllable words in the sample), and multiplying the total by .4 (four tenths). This gives you the approximate grade level of the written material. It should be noted, however, that this estimate tends to run somewhat high with more difficult materials.

3. A worksheet is provided on Form VI.1.1 to assist you with computing the FOG Index using the previously stated procedures. It is recommended that a minimum of three 100 word samples be used, and that an average of the reading levels for each sample be used as the final estimate of the reading level of the material.

   [RESOURCE MATERIAL: FOG Readability Index Worksheet, Form VI.1.1]

4. As suggested earlier, readability formulas can be used for several purposes in addition to assessing the reading level of materials. The FOG Index may also be used:

   a. To check the readability of worksheets and exercises given to students.

b. To point out lengthy sentence structure that is likely to inhibit comprehension.

c. To point out words that are likely to be problems for selected learners.

d. As a tool for rechecking teacher-prepared materials after they have been rewritten.

5. In addition to reading level, several other factors need to be considered in selecting text materials to be used by special needs learners.

   a. Double column pages provide for easier eye movement and tend to be more legible.

   b. Type face should be 10-12 points in size in order to be easily read by most learners. Enlarged print materials have been commonly used with visually impaired learners.

   c. Black printing on dull-finished white paper tends to provide for optimum legibility.

   d. Generous spacing between lines and wider margins are also conducive to increased reading comprehension.

6. Perhaps the most crucial consideration in selecting reading material is its compatibility with the learner's interest. Generally speaking, the reading ability an individual demonstrates can be expected to increase by as much as two full grades if the reader's interest is high.

7. Once these essential characteristics of the instructional material have been identified, it is imperative that they be compared with the characteristics of the learner in question. A review of the learner analysis profile and learning prescription (from Module 1) should be made before a final decision on possible use of the material is made.

8. Another consideration in evaluating instructional material has to do with content validity and format appropriateness. A series of questions can be addressed on both of these points. The Instructional Materials Checklist (Form VI.1.2) on the following pages includes 20 items that focus content validity and format appropriateness. All instructional materials used with special needs learners (including audio-visual materials) should be evaluated with this or a similar checklist to determine their appropriateness.

   [*RESOURCE MATERIAL: Instructional Materials Checklist, Form VI.1.2*]

FOG READABILITY INDEX WORKSHEET

Title:_____ Type of Material:_____
(e.g., textbook, test, procedure manual)

Sample 1 (100 words from page no. ___)

a. _____ No. of sentences in the sample

b. _____ Average sentence length (100 divided by a. above)

c. _____ No. of 3 syllable words in the sample

d. _____ Sum of (b) and (c) above

x.4 Multiplication factor

| | Reading level for Sample 1

Sample 2 (100 words from page no. ___)

a. _____ No. of sentences in the sample

b. _____ Average sentence length (100 divided by a. above)

c. _____ No. of 3 syllable words in the sample

d. _____ Sum of (b) and (c) above

x.4 Multiplication factor

| | Reading level for Sample 2

Sample 3 (100 words from page no. ___)

a. _____ No. of sentences in the sample

b. _____ Average sentence length (100 divided by a. above)

c. _____ No. of 3 syllable words in the sample

d. _____ Sum of (b) and (c) above

x.4 Multiplication factor

| | Reading level for Sample 3

| | AVERAGE READING LEVEL FOR ALL THREE SAMPLES

INSTRUCTIONAL MATERIALS CHECKLIST

Directions: Commercially-produced or teacher-prepared materials can be evaluated using the review criteria listed below. Both occupational and special educators should assess the material prior to purchase or final revision (if teacher prepared).

Title:_____ Evaluators:_____

Media Type (film, book, etc.:)_____ _____

Source:_____ Date:_____

	Rating *Lo* *Hi*	Inappropriate Criteria *(check)*
1. Is the instructional material potentially interesting for the learner(s) for whom it is intended?	1 2 3	_____
2. Are the skills/knowledges/attitudes it will develop appropriate for the learner?	1 2 3	_____
3. Are the skills/knowledges/attitudes it will develop consistent with the instructional objectives of the unit?	1 2 3	_____
4. Does the material contain explicitly stated goals so that students and teachers alike will be able to evaluate their performance?	1 2 3	_____
5. To what extent is the material controlled to provide the appropriate reinforcement for correct responses and near correct responses?	1 2 3	_____
6. To what extent can students actively participate with the instructional material?	1 2 3	_____
7. To what extent are the materials useful with both individuals and groups?	1 2 3	_____
8. Are the directions for using the material too complex for teachers and/or learners to readily understand?	1 2 3	_____

		Rating *Lo*	*Hi*	Inappropriate Criteria *(check)*
9.	To what extent is the material flexible enough to permit additions, deletions, or modification of content?	1 2 3		_____
10.	To what extent is the material portable and readily available from the distributor or manufacturer?	1 2 3		_____
11.	To what extent has the material been pre-tested, pilot tested, and evaluated with different special needs populations?	1 2 3		_____
12.	To what extent does the material permit the teacher to evaluate diagnostically a student's level of performance to determine where the learner should begin?	1 2 3		_____
13.	Are there cost-benefit considerations to be made in using this material? Will the material produce results that outweigh the costs?	1 2 3		_____
14.	Will the material have to be adapted to another media form (e.g., braille, enlarged print, etc.) for visually handicapped learners?	1 2 3		_____
15.	Will the material have to be adapted to another media or format for orthopedically handicapped learners (e.g., self-instructional packages for homebound instruction)?	1 2 3		_____
16.	Will the material have to be adapted to another media (e.g., cassette/audio tapes to print) for hearing impaired learners?	1 2 3		_____
17.	Are the illustrations/pictures appropriate for special needs learners?	1 2 3		_____
18.	Is the material sufficiently durable for classroom or lab use?	1 2 3		_____
19.	Are sufficient and appropriate examples or applications used to realistically present the information?	1 2 3		_____

20. Other considerations/criteria:

21. DISPOSITION *(Check one):*

_____ Do not purchase and/or use

_____ Purchase and/or use "as is"

_____ Purchase and/or use after modification

9. Finally, it is important that the results from the readability analysis or instructional materials checklist be utilized. If the materials appear to be inappropriate, teachers must have a commitment to revising the material(s) or locating new material(s) that are appropriate and usable. Often the results from these evaluations can be used to convince administrators of the need to purchase new or modified materials.

Self-Check Evaluation

Inservice Experience VI.1: Analyzing Instructional Materials

Directions: After evaluating at least one instructional material with both the FOG Readability Index and the Instructional Materials Checklist, you will want to use this self-evaluation to determine the adequacy of your evaluation of the selected instructional material(s).

FOG Readability Index

1. Were several samples (at least 3) used in calculating the FOG Index (reading level)? _____yes _____no

2. Were the reading levels accurately computed? _____yes _____no

3. Was an average reading level factor computed using all samples? _____yes _____no

4. Was any action taken to modify or replace the material after the reading level was determined? _____yes _____no
   If yes, please describe the action taken:

Instructional Materials Checklist

1. Was more than one person involved in evaluation of the instructional material(s)?
   _____yes _____no

2. Were responses provided for each of the 19 criteria? _____yes _____no

3. Was any action taken to purchase, modify, or replace the material(s) based on the results of the Instructional Materials Checklist?
   _____yes _____no
   If yes, please describe the action taken:

INSERVICE EXPERIENCE VI.2:

PROVIDING REINFORCEMENT AND FEEDBACK

Instructional personnel are continuously involved in providing reinforcement and feedback to learners in educational settings. The presence of special needs learners tends to increase the difficulty of this task for the teacher because of their atypical behavioral or learning style. Wallace and Kauffman (1973) note that it is unlikely that teachers will be successful in remediating academic or school learning skills if they are not skillful in managing classroom behavior.

Although it has been practiced and used informally for a number of years, recently educators have begun to systematically use behavior modification in all types of instructional situations. Behavior modification refers to any systematic arrangement of environmental events that produce a specific change in observable behavior (Wallace and Kauffman, 1973).

Guidelines and Suggestions

Listed below are several suggestions and techniques for providing reinforcement and feedback that can be used by occupational and special educators. It is important that all teachers working with the special needs learner be aware of the reinforcement arrangements and scheduling. Coordination and communication is important in planning, as well as implementing the use of such reinforcers as the opportunity to go to the shop during a free hour or study hall. In some instances it will be necessary to coordinate reinforcement and feedback plans with parents and employers.

Once you have finished reviewing these guidelines and suggestions you should consider developing a formal plan for providing feedback and reinforcement similar to the one presented in the Contingency Contracting form (Form VI.2.1).

1. The first consideration involves identifying the target behavior. A decision has to be made as to whether the target behavior is to be positively reinforced to strengthen it, or negatively reinforced to eliminate it. Identification and specification of the target behavior is an essential first step. An example of a stated target behavior can be found on the Contingency Contracting form on the following page.

   [*RESOURCE MATERIAL: Contingency Contracting Form, Form VI.2.1*]

2. Selection of the reinforcer to be provided for the learner is perhaps the most critical step. To be effective a reinforcer or r ward must be:

   - highly desirable in the learner's eyes
   - not obtainable elsewhere

   In many instances, the best way to determine the appropriate reinforcer for a special needs learner is to simply ask what he or she would enjoy doing most from a range of possible activities. Special education teachers and counselors are also excellent sources of this kind of information.

3. Homme (1970) has developed an approach for providing reinforcers in the form of an agreement or contract. The learner benefits from an explicit statement of the relationship between present behaviors and the consequences of such behavior. A negotiated contract between the learner and teacher states that the teacher will provide a desired reinforcer after the learner demonstrates the desired target behavior. A contingency contract can be either verbal or written, but must be similar to any good business contract, i.e., fair to both parties, clear and concise statement of terms, be adhered to, and provide a positive incentive. The Contingency Contracting Form on the following page presents an illustration of a written contingency contract that can be developed and used, in which special and occupational educators are jointly involved in monitoring the learner's performance.

4. Initially, reinforcement/feedback must be provided immediately following the behavior on a continuous schedule. At first, the reinforcement will probably be provided only for a small bit of demonstrated performance.

5. Managing the delivery of continuous, immediate reinforcement in a large class is virtually impossible. It is helpful to establish a secondary system of providing credit points that the learner can accumulate. A token system, or green-stamp program, is also a functional technique for reinforcing desired behavior. Accumulation of points influences the learner to act in accordance with the desired outcome or goal. Point systems and charts have also been used by both occupational and special education teachers and can serve as functional secondary reinforcement systems.

6. When you are concerned with the development of new skills or behaviors, it is especially important that the learner be reinforced after every correct performance. Random or intermittent patterns of reinforcement should be used only after the new skill or behavior has stabilized.

7. Initially it is important to frequently use tangible reinforcers (e.g., tokens, or an opportunity to work on a personal project). These tangible reinforcers should always be paired with a social stimulus (i.e., positive recognition by teachers or peers). Gradually the tangible reinforcers can be removed and shifts made to reinforcers that are less artificial and more natural.

8. Modifying behavior for many learners involves the principle of successive approximations. An analysis of the target behavior can be done to determine the different components or natural steps involved in acquiring the target behavior. Reinforcement is then provided as each of these natural steps is attained. The initial performance requested of the learner is a small, easy-to-perform part of the expected final performance. If the requested performance is too difficult or beyond the learner's ability or level of comprehension, no amount of reinforcement or reward will help.

   For example, if you are concerned about getting a learner to clean up the lab or classroom, have him begin by putting away the tools, then cleaning the machine, and finally sweeping the floor; as opposed to simply directing him to "clean up."

9. To eliminate certain behaviors, it is helpful to find and use behaviors that either oppose or are incompatible with the learner's undesired behavior. In a classroom setting, when another nearby learner is performing the task correctly, a heavy dose of reinforcement for the correct performance will likely diminish the incorrect behavior. Quick elimination of reinforcing behavior is also effective. If teacher attention is reinforcing for the learner, such attention should not be provided when a performance is incompatible with the target behavior.

CONTINGENCY CONTRACTING FORM

Note: Contingency contracting can be done on either a verbal or written basis. The form below is an example of the less frequently used written contract form.

Contingency Contract

involving

Instructor(s): Jayce Jenkins, Spec. Ed.
John Tiedeman, Auto

Learner: Pete Markel

Date: Jan. 12

TARGET PERFORMANCE:

If Pete will: (1) attend all of his classes for 6 weeks with no more than 2 excused absences and 2 tardy spells, and (2) complete 4 exercises in occupational math in the resource room,

If the above stated target performance is successfully demonstrated by the learner, the incentives/rewards listed below will be provided by the appropriate instructional staff.

INCENTIVES/REWARDS:

Pete will be permitted to use the auto lab equipment/tools during his free period to: (1) service his mini-bike, and (2) build a motorcycle trailer.

Signatures

Learner: Pete Markel

Date: 1/12/75

Instructor(s): John Tiedeman
Jayce Jenkins

10. Whenever possible, stimuli that are aversive should be removed from the learning situation. If, for instance, the learner encounters difficulty when working in teams with certain classmates, it is best to arrange the team assignments so that problems are avoided and the learner works with team members that can provide positive reinforcement for desired behaviors. Removal of aversive stimuli diminishes the negative reinforcement which causes or perpetuates the undesired behavior.

11. Rewards and reinforcers should be keyed to performance and not obedience. Rewards given for accomplishment of desirable goals are much better than simply requiring learners to comply with any standards of the system, which they do not see as desirable for themselves or the system. Rewarding students for accomplishment will lead to independence, while continuously rewarding them for obedience will tend to make them dependent.

12. A simple and practical principle of behavioral management was formulated by Premack. The Premack Principle states that: "anything a learner likes to do more can be used to reinforce any behavior he likes to do less." Through observation and getting to know learners, teachers are able to determine their preferences. Highly preferred activities can then be used to reinforce less preferred activities. The greater the difference in preference between the two activities, the greater the reinforcing power of the preferred activity. Listed below are two arrangements that could be used to operationalize the Premack Principle in occupational programs.

Learner's Preference	*Reinforcement Arrangement*
Learner prefers working on his motorcycle to completing a welding exercise.	*Provide an opportunity to work on the motorcycle contingent upon successful completion of the welding exercise.*
Learner chooses to sit in the classroom and read instead of engaging in lab activities.	*Make access to the reading materials contingent upon observation in the lab. Later make access to the materials contingent upon participation.*

13. Obviously, several specific considerations should be made in designing and implementing procedures for providing reinforcement or feedback. Gold has identified one rule that is critical to providing feedback to learners as they perform manual tasks. The Rule of Diminishing Feedback states that:

> *Each time an instructor corrects an error that has been made previously, enough information to correct the error should be provided, but less information than the time before.*

If, for instance, a learner is having trouble setting the feed and speed on a machine lathe, the instructor might indicate what the appropriate combination of feed and speed is for the material being machined. If the learner encounters trouble with feed and speed settings in a later operation, the instructor might provide feedback only on the appropriate speed. Limiting successive feedback in this way provides an incentive for the learner to internalize feedback when it is provided.

14. Another guideline for behavioral management has to do with the use of group contingencies. In certain situations teachers will find it useful to manage the providing of reinforcement on a group basis instead of an individual basis. In such instances, each member of the group must exhibit the desired behavior before the reinforcement is provided. This technique is commonly used by industrial education teachers who make dismissal of the class contingent upon the completion of each class member's clean-up responsibilities. In situations like this, peers will give encouragement, or distract other learners as little as possible in order to obtain the reinforcement. Care must be taken, however, to insure that the failure of one learner does not result in punishment for the entire class.

15. Once desired target behaviors are attained or obtained, there are several techniques that can be used to maintain them. These maintenance techniques include:

    - gradually reducing the frequency and/or amount of reinforcement provided
    - gradually delaying the reinforcement after performance
    - gradually fading from artificial to natural reinforcers
    - reinforcing self-control behaviors

16. It is imperative that the behavioral management program be coordinated with all of the learners' teachers, as well as his parents. If the target behavior is to increase school attendance and decrease tardiness when the learner is in school, this will obviously require the cooperation and participation of school personnel and parents in providing the necessary reinforcement.

CONTINGENCY CONTRACTING FORM

Note: Contingency contracting can be done on either a verbal or written basis. The form below is an example of the less frequently used written contract form.

Contingency Contract

involving

Instructor(s): _____

_____

_____

Learner: _____

Date: _____

TARGET PERFORMANCE:

_____

_____

_____

If the above stated target performance is successfully demonstrated by the learner, the incentives/rewards listed below will be provided by the appropriate instructional staff.

INCENTIVES/REWARDS:

_____

_____

_____

Signatures

Learner: _____

Date: _____

Instructor(s): _____

_____

_____

Self-Check Evaluation

Inservice Experience VI.2: Providing Reinforcement and Feedback

Directions: If you elected to develop a written contingency contract (Form VI.2.1), the items below will help you to evaluate the adequacy of the contract you have developed. If you can respond positively to each of the questions, you have successfully completed the inservice experience. Be sure to modify the contract as suggested by the evaluation, if necessary.

1. Are the instructors and learner who initiated the contract clearly identified? _____yes _____no
2. Is the target performance observable? _____yes _____no
3. Is the target performance measurable? _____yes _____no
4. Is the target performance a reasonable expectation for this learner? _____yes _____no
5. Are the incentives/rewards listed substantial enough to generate the target performance? _____yes _____no
6. Are the conditions of the contract clearly stated? _____yes _____no
7. Is the contract fair to both parties? _____yes _____no
8. Are all of the parties affected by the contract (counselors, parents, other teachers, etc.) aware of its existence? _____yes _____no

Comments:

Suggestions for Modification of the Contingency Contract:

INSERVICE EXPERIENCE VI.3:

MODIFYING THE LEARNING ENVIRONMENT

In more recent years educators and parents alike have become concerned about the adjustment of facilities, tools, and equipment used in occupational programs by special needs learners. In the past, some special needs learners have not been admitted to or adequately served in occupational programs because of existing, non-adaptive facilities or equipment. However, recently federal and state legislation has facilitated the removal of architectural and other physical barriers which might prohibit or limit handicapped learners from participating fully in occupational, as well as other educational programs.

Guidelines and Suggestions

A number of general suggestions can be made for possible adaptations of equipment and facilities for learners with different physical handicaps. It is important to remember, however, that specific modifications will be based on the needs of individual learners, and that these physical adjustments will vary greatly even among learners having the same disability. If you currently are teaching learners who require modification of the learning environment, you should complete the Environmental Modification Worksheet (Form VI.3.1) after reviewing the following guidelines and suggestions.

1. Modifying facilities and equipment requires assessment of the needs of individual learners first of all. Reference should be made to the Learner Analysis Profile or Learning Prescription which was developed in Module 1 to review the particular needs of individual learners. Modification in facilities, tools, equipment, and materials should only be made to the extent that permits the learner to engage in a meaningful and productive learning experiences.

2. Whenever possible, regular tools, equipment, and materials should be used so as to not over coddle special learners. Care must be taken so special materials and equipment are used only when necessary, thereby minimizing the attitude that special considerations are always necessary for physically handicapped persons.

3. One of the most important considerations in planning or adapting an environment for special needs learners is flexibility. Does the existing environment take into account that special needs learners will work at different rates? Does the setting enable the learners to use different materials and different learning methods at the same time? Does the environment offer different work surface heights to accommodate learners who prefer to sit, stand, or lounge? Does the room have different sub-spaces for reading, lab work, discussion, listening, or viewing self-instructional media? For the environment to be attractive and stimulating for learners with learning and behavioral problems, it must be flexible enough to accommodate the individual preferences and needs of such learners.

4. Color is another important consideration. Selection of basic colors and color combinations will depend largely upon the characteristics of the special needs learners being served. Darker, depressing tones may be helpful in working with learners who are hyperactive, while brighter colors (yellows and reds) may be helpful in stimulating learners who are apathetic and despondent.

5. Yuker and his co-authors (1967) have identified four general types of school equipment that can be used to meet the individual needs of physically handicapped learners.

   - Standard unmodified school equipment
   - Standard equipment that has been modified
   - Specially designed, commercially available equipment
   - Specially adapted equipment for individual learners

6. The Environmental Modification Worksheet (Form VI.3.1) can be used by occupational and special education teachers to determine the modifications needed prior to placing a physically handicapped learner in an occupational program. As shown by the example, in most cases only one or two sections of the worksheet will need to be completed--unless the learner is multiply handicapped. Completion of the worksheet provides both the teachers with a better understanding of the changes needing to be made.

   [*RESOURCE MATERIAL: Environmental Modification Worksheet, Form VI.3.1*]

ENVIRONMENTAL MODIFICATION WORKSHEET

Directions: For the special needs learner identified below, list the modifications which are necessary to accommodate this learner in the identified occupational program.

Learner: Linda Occupational Program: Secretarial Practice

Occupational Instructor: Brenda Lane

Special Education Instructor: Sue Schafer

1. Modifications for Hearing Impairment:
Obtain and use the captioned film series on "Touch Typing"
Purchase and install (on an electric typewriter) a simple light that will indicate when the margin is about to be reached
(Avoid using words that limited lip movement, and titles are difficult to lip read (such as "with")

2. Modifications for Visual Impairment:

None required

3. Modifications for Orthopedic Impairment:

None required

4. Other Modifications:

None required

7. Few, if any, modifications are usually required for deaf or hearing impaired learners. Two specific modifications are suggested by Szoke and Vest (1976) however:

   - A red light installed next to the switch indicating when the machine is in operation

   - Bells connected to a light that turns on when the bell rings. This is applicable on typewriters, class bells, timers, fire alarms, emergency stop procedures

8. The degree of equipment modification required for visually handicapped learners will depend upon the type and extent of vision loss. An orderly and non-altered environment is important to the safety and mobility of blind learners in a lab situation. Some other modificiations such as the following may also be needed (Szoke and Vest, 1976):

   - Control dials and switches which are easily accessible; special control dials with the actual rather than visual markings--for this one can use brailled tape or raised marks (e.g., dots of Elmer's glue)

   - Auditory rather than visual warning signals

   - Guard plates (where feasible) on power equipment

   - Specially designed communication and measuring tools and other devices are available and should be considered for the visually impaired student on an individual basis. These include: Braille shorthand machines and stenotype devices, adapted calculators, equipment for preparing raised line drawings, light detectors that emit a sound stimulus, audible multimeter, audible electronic level, brailled micrometers, calipers and rulers, sound monitors for indicator lamps, automatic fluid measuring devices for darkroom work, Braille bevel protractors, vernier rules, transformer testers, and feed indicators for lathes

9. Several facility and equipment modifications may be necessary implementing instruction for orthopedically handicapped learners (students in wheelchairs, on crutches, or with artificial limbs) (Szoke and Vest, 1976):

   Facilities:

   - Absence of obstructions, ample space between aisles and around power equipment, storage areas for students in wheelchairs

   - Non-skid floor to facilitate handling of crutches and wheelchairs

- Alterations in height of work benches, storage cabinets, etc.--typically these have to be lowered and recessed to accommodate students in wheelchairs

- Simple handles rather than knobs on cabinets for amputees with prostheses

- Mobile demonstration table that can be moved from student to student

- Sinks and water controls should be accessible to students in wheelchairs--batwing faucets that require minimal manual dexterity for manipulation and gooseneck spigots that allow for greater ease of operation by providing ample room between the sink and the spigot are especially helpful for students with upper extremity orthopedic involvement

Equipment:

- Guard plates (where feasible) on power equipment; machine switches on power equipment may need to be moved for easier accessibility

- Semi-stationary equipment should be put on variable height bases

- Regular equipment may need to be adapted, e.g., hand controls added to machines usually operated by foot controls

- Special light weight hand tools or tools with extra large handles for easy use by students with weak hands

Form VI.3.1
Reproduction Master

ENVIRONMENTAL MODIFICATION WORKSHEET

Directions: For the special needs learner identified below, list the modifications which are necessary to accommodate this learner in the identified occupational program.

Learner: _____ Occupational Program: _____

Occupational Instructor: _____ _____

Special Education Instructor: _____ _____

1. Modifications for Hearing Impairment:

2. Modifications for Visual Impairment:

3. Modifications for Orthopedic Impairment:

4. Other Modifications:

Self-Check Evaluation

Inservice Experience VI.3: Modifying the Learning Environment

Directions: If you are currently working with a special needs learner(s) with a physical disability of some type, you may find it necessary to use the Environmental Modification Worksheet. For each of the items below, rate your completed Environmental Modification Worksheet. If you are unable to rate your worksheet at "3" on each item, modify the worksheet accordingly.

1.	Completed by only one teacher	1	2	3	Completed by consulting an appropriate teacher or specialist
2.	Learner assessment information not reviewed	1	2	3	Learner assessment information reviewed to gain full understanding of disability
3.	Modifications not fully or adequately described	1	2	3	Appropriate modifications fully and adequately described
4.	Suggested modifications may be necessary	1	2	3	Suggested modifications are absolutely necessary to accommodate this learner

Comments:

Suggestions for Modification of the Environmental Modification Worksheet:

INSERVICE EXPERIENCE VI.4:

PLANNING AND COORDINATING WORK EXPERIENCE PROGRAMS

NOTE: This experience is appropriate for those teachers or teacher-coordinators who either have or will have responsibility for placement and supervision of special needs learners on part-time jobs at the junior or senior high school level.

Much has been written about the use of cooperative education or work study as a meaningful and essential component of a comprehensive occupational program for special needs learners. Work experience programs will be defined here to include all types of programs that involve the learner in some form of part-time work as part of his or her educational program.

Numerous suggestions and principles for planning and coordinating work experience programs are provided in several texts. Two of the more complete and popular reference texts are: Mason and Haines, Cooperative Occupational Education. Danville, Illinois: Interstate Printers & Publishers, 1972, and Kimbrell and Vineyard, Strategies for Implementing Work Experience Programs. Bloomington, Illinois: McKnight Publishers, 1972. These texts and several other manuals provide background information, guidelines and suggestions for all facets of planning and coordinating work experience programs. The reader should become familiar with at least one of these texts, since many of the principles related to managing work experience programs are the same irrespective of the type of learner involved.

Guidelines and Suggestions

The suggestions and guidelines provided herein will focus on the special considerations to be made when work experience programs are being planned

or implemented with individual special needs learners.

1. Several different types of work experience programs have been initiated over the years. Mason (1970) has developed a descriptive table (Form VI.4.1) illustrating three basic approaches for using the work environment as part of the educational process. This table describes several of the basic differences among each type of program.

   [*RESOURCE MATERIAL: Comparison of Three Plans Using the Work Environment, Form VI.4.1*]

2. A number of special work experience programs have also appeared on the scene. Three of the are more fully described in Form VI.4.2 on the following page. In addition to those described here the Vocational Rehabilitation Service also provides a program involving work experience for special needs learners.

   [*RESOURCE MATERIAL: Selected Cooperative Programs for Special Needs Learners, Form VI.4.2*]

3. An effective work experience program for special needs learners requires close coordination among various in-school and out-of-school agencies. Labor unions, the Employment Service and Vocational Rehabilitation are just three of the community agencies or groups that the coordinator must deal with effectively and continuously. A clear understanding of all facets of the program is needed by all of these groups. The community resource inventory or resource cards developed in Module 3 may be helpful in locating contact persons for each of these agencies or groups.

4. Vocational Rehabilitation provides a variety of services and training opportunities for different individuals with special needs. Placement, remedial, and diagnostic services are just a few of the major services provided. Coordinators should be sure that each learner is registered with the agency as soon as he/she is eligible. If a community resource inventory was developed in Module 3, the name of the contact person is probably listed on the inventory.

5. Effective related instruction for learners placed in part-time employment requires a detailed analysis of the social and occupational components of the job. The requirements of each job under consideration should be analyzed and related to the students in the program. Smith (1974) suggests that the major factors for job analysis should include:

   - The specific type of job, level of competence required, and amount of previous experience required.
   - Employment procedures, credentials/certificates needed, and degree of involvement with labor unions required.

Comparison of Three Plans Using the Work Environment[1]

Components or Characteristics	Cooperative Education	Work-Study	Work Experience
1. Established Career Objective by Student	Yes, primary objective is entry employment training toward career	Sometimes yes, established in some vocational field. Program objective is usually earning power and motivation for student	No, but sometimes has general education values
2. Classroom Instruction Related to the Career Objective	Yes	Not necessarily	No
3. Established Training Station and Close Supervision by School	Yes	Not usually	No
4. On-the-Job Training Plan	Yes	No	No
5. Paid Employment	Yes, usually by profit-making business	Yes, (in some plans through government subsidy)	Not necessarily
6. An Advisory Committee Used	Yes	No	No
7. Vocational Youth Group Correlated with Instruction	Yes	No	No
8. Certified Teacher-Coordinator in Occupational Field	Yes	No	No
9. Planned Home Visitations	Yes	No	No

1. Source: Ralph E. Mason, "The Effective Use of Cooperative Work Experience," Business Education Forum, May 1970, p. 10.

SELECTED COOPERATIVE PROGRAMS

FOR SPECIAL NEEDS LEARNERS

Special Education Work Experience Programs

Students classified as special education students are placed in remunerative jobs which are usually on-campus under the coordination of a special education teacher. The program is considered a transitional bridge to adult living for students who would benefit from initial work experiences that are semi-sheltered or sheltered. The basic skills of independent living are taught.

Work Experience Programs for Disadvantaged Youth

This program is designed for students who are late junior or senior high school age, and are usually classified as slow learners, alienated, or disadvantaged. In most of these programs a student spends his entire school day or a major portion of it in a situation where the teacher serves basically as a group guidance facilitator, and teaches all of the related curriculum. This individual usually serves as the coordinator when the student matures to level of readiness for job placement.

Cooperative Work Training

This is a program designed to provide students with maturing experiences through employment that will help them become productive, responsible individuals. The part-time work is not necessarily related to the student's occupational objective. The program is designed specifically to serve disadvantaged youth and adults who are dropouts and who need social, emotional, maturation, and career exploration essential for success. All elements of the cooperative plan are present in the operation of programs, only the level of employment is lower than cooperative occupational education.

Work Experience and Career Exploration Program (W.E.C.E.P.)

W.E.C.E.P. is a school-supervised and administered program sponsored by the U.S. Department of Labor that includes part-time work as part of the educational program aimed at motivating potential 14 and 15 year old drop-outs. The minimum age restrictions are waived for learners in this program if the school district can meet the program approval standards. Students can work a maximum of three hours a day or 23 hours a week when school is in session, and must receive credit toward graduation for both in-school related instruction and on-the-job experience. Approval for W.E.C.E.P. programs is granted by the State Office of Education in each state.

- Extent to which the worker is required to interact with fellow workers and the general public.

- Specific types of requirements needed for job success, amount of training provided by the employer, and the type of supervision given to the worker.

- Types of working conditions, potential for being relocated or moved to another shift.

- Types and levels of educational skills needed to function satisfactorily on the job, including the amount of reading required, math skills needed, demands for handling money, and the level of communication skills required.

6. When matching a special needs learner to a specific job it is important to identify the essential personal characteristics demanded by the job. Form VI.4.3 on the following page can be used to analyze a potential training station for such factors as: social skills, time factors, tolerance, and performance skills. Analysis of these factors is extremely important for special needs learners because they tend to have difficulty in these areas.

   [RESOURCE MATERIAL: Occupational Training Station Analysis, Form VI.4.3]

7. The related instruction component of a work experience program must be broad enough to permit special needs learners to generalize understandings to other occupations. Since many special needs learners tend to move from their initial jobs because of their inability to get along with others, they must be able to recognize the commonality of job seeking skills and other basic skills that are transportable from one job to another.

8. Effective coordination for special needs learners is dependent upon two areas which require constant attention: (1) maintaining acceptable performance standards on the part of the student-worker in terms of quality and accuracy, and (2) complying with safety requirements (Smith, 1974).

9. The teacher-coordinator is the central figure in establishing work experience programs for special needs learners. The teacher-coordinator is an important member of the cooperative instructional team which was identified in Module 2. A successful coordinator spends a great deal of time working in the community, as well as coordinating various aspects of the in-school instructional program for individual learners. Floyd (1973) identified the major activities of teacher-coordinators who work with special needs learners:

   - Secures jobs for students

   - Teaches job-related class

- Prepares training plans
- Works with job training supervisors
- Visits students on the job
- Prepares reports
- Requests or issues work permits and waivers
- Keeps student records
- Evaluates student performance
- Selects or assists in selecting students to participate
- Secures services of resource people
- Holds individual student conferences
- Promotes program
- Visits parents of students and prospective students
- Organizes an advisory committee
- Develops instructional materials

10. When special needs learners are placed in competitive employment training stations, the coordinator must encourage the learner to deal independently with socialization problems he may encounter. In order for a student-worker to be accepted by his fellow employees, he must gain their respect without any direct interference by the coordinator.

11. Special educators have repeatedly stressed the importance of careful and prudent management of the school to work transition for special needs learners. Smith (1974) has identified a series of six sequential phases which describe several unique and individual placement options for learners at the secondary level.

    o *In-class activities on an exclusive basis* -- Prior to any type of work placement, students should receive a heavy concentration of prevocational information. The emphasis should be placed on procedures and techniques for interviewing, completing application forms, recognizing the social demands of work, and other similar considerations. Whenever possible, these concepts should be taught in situations that replicate the work environment, as nearly as possible, in the special classroom.

OCCUPATIONAL TRAINING STATION ANALYSIS[1]

	ESSENTIAL PERSONAL CHARACTERISTICS	Job Title: Auto Mechanic Helper — Low	Average	High
SOCIAL SKILLS	1. SELF-EXPRESSION--communicate, ask for assistance, question		✓	
	2. SOCIABILITY--interact with other employees or public		✓	
	3. WORK INDEPENDENCE--work without supervision or guidance	✓		
	4. APPEARANCE--cleanliness, good mannerisms, neatness in appearance	✓		
	5. TEAMWORK--perform in close co-ordination with other jobs		✓	
TIME FACTORS	1. PACE--perform at a consistent rate of speed		✓	
	2. ATTENDANCE--be reliable in attendance and punctuality		✓	
	3. SIMULTANEITY--perform several activities at near same time			✓
	4. TIMING--perform timed, scheduled activities; be aware of time		✓	
PERFORMANCE SKILLS	1. ACCURACY--perform within well-defined tolerances			✓
	2. DEXTERITY--make fine manipulations, coordinated movement			✓
	3. CHOICES--select among alternatives, make decisions	✓		
	4. DIRECTION--follow procedures, instructions or directions		✓	
	5. MEMORY--remember locations, procedures, nomenclatures, etc.		✓	
	6. CAUTION--use care in activities which pose personal hazard			✓
TOLERANCE	1. REPETITIVENESS--have tolerance for monotony or repetition		✓	
	2. PERSEVERANCE--perform continuously, over normal periods		✓	
	3. STAMINA--have physical stamina, strength, resist fatigue			✓

Location: Diedrick Chevrolet Sales

Supervisor: Cox Colvin

Address: 2186 Smithson Road

[1] Adapted from: Peterson, R.O. and Jones, E.M. Guide to Jobs for the Mentally Retarded. Washington, D.C.: American Institutes for Research, 1964.

- *In-class activities with short-term, on-campus, work experience* -- This arrangement provides an opportunity for the learner to relate his classroom instruction to solving practical, job-related problems. He has an opportunity to try out some of his skills in a closely controlled environment. Possible in-school training stations could include:

  Elementary teacher aide
  Lunchroom assistant
  Library aide
  Maintenance assistant
  School bus maintenance
  Clerical assistant
  Warehouse material handler
  Messenger/guide
  Audio-visual media assistant

  The adults supervising this kind of placement should be familiar with the program objectives. The work performed should not be artificially contrived, but should be useful. Financial remuneration should be provided. The purpose of the placement is to enable the learner to evaluate his own performance, therefore the emphasis should be on accuracy as opposed to speed.

- *In-class activities in combination with heavy on-campus work experience and some off-campus, community-based work experience* -- This type of placement provides for the introduction of new work environments and situations for the learner. A stabilizing environment is still considered critical to adjustment in this type of program, however. The in-class experiences are used to strengthen the student's deficiencies in selected areas, and to help him maintain the basic skills he previously developed. Emphasis in the on-campus work experience should be placed on application of academic skills.

- *In-class with half-days of off-campus work experience* -- Here again, a move toward greater independence and responsibility is evident. The learner should be closely supervised and shifted from one training station to another to acquaint him with a variety of occupational experiences. At this stage it becomes critical that the responsibilities of the supervisor and teacher-coordinator become clearly delineated. Training plans and agreements such as one presented in Form VI.4.4 on the following page should be developed. Records of performance and evaluation should also be maintained by both the coordinator and employer.

  [RESOURCE MATERIAL: *Training Agreement and Plan, Form VI.4.4*]

- *Total off-campus work experience* -- By the time the learner has progressed to this stage he has systematically worked out and overcome any major weaknesses which might impede his success in occupational, social, personal or self-sufficiency functioning. It is the coordinator's responsibility to see that the learner is placed in a permanent position when he reaches this level. Vocational rehabilitation can also provide assistance in the placement process.

- *Follow-up* -- When a learner is placed in a permanent position, it should be noted that a considerable investment has been made by the public school, as well as the supportive service agency(s). To insure that this investment is not lost, regular and systematic follow-ups should be made for at least three years. These assessments should examine the job performance of the individual, as well as his development of independent living skills and level of social integration. If the responses of either the individual or the employer indicate a problem or potential problem, efforts must be initiated to provide whatever remedial or rehabilitative services are necessary.

  Inservice Experience VII.2 in Module 7 outlines a process and provides a series of suggestions for conducting follow-up surveys.

TRAINING AGREEMENT AND PLAN

Form VI.4.4

Montpelier High School Work Experience and Career Exploration Program
Jenkinsville, Iowa

Learner: Phyllis Address 711 Kenyon, Jenkinsville Zip 68312
Phone 360-1212 Age 11 Birth Date 3-12-60 S.S. No. 222-12-7661
High School Montpelier Grade Junior Sex F
Date Employment to Begin 1-15 Expected Completion Date 6-15 M or F
Starting rate of pay $3.12 Daily Schedule 1:30-5:30 p.m.
Total hours per day 4 Maximum hours per week 20

Learner's Cooperative Instructional Team (In-school)

Occupational Instructor Sue Loth Course Clothing construction
Special Services Instructor Cindy Jenkins Course/service Special education
Teacher-Coordinator Lori Richards Related Course Employment orientation

Cooperative Training Site

Employer Courier Clothing Address 1450 Abbas Avenue Phone 361-2161
City Jenkinsville Supervis. Sam Pryor
Job Title: Alteration Tailor

Job Activities	Related Instructional Modules	ID. No.
Resew seams	Handstitching Machine sewing	CTS-03 CTS-10
Remove stitching	Handstitching	CTS-03
Shorten pants	Alterations	CTS-08
Alter suit/sport coats	Alterations Garment construction	CTS-08 CTS-06
Reform waist alterations	Alterations Garment construction	CTS-08 CTS-06

Responsibilities of Participating Parties

A. Trainee will abide by the regulations and policies of his employer and the school.

B. Employer assumes the responsibility of providing the trainee with the broadest experience in keeping with the job activities.

C. The coordinator will arrange for in-school related instruction, consultation, and advisory services to persons associated with this training program.

D. The employment of the trainee shall conform to all federal, state, local laws and regulations, including non-discrimination against applicants or employees because of race, color, or national origin.

E. This training program shall not be interrupted without prior consultation between the trainee, employer, and coordinator.

Signatures of Persons Approving This Program:

Learner Phyllis Jobe (Signature) Employer Sam Pryor (Signature)
Parent Mrs Larry Jobe (Signature) Coordinator or School Official Lori Richards (Signature)
Date January 30

OCCUPATIONAL TRAINING STATION ANALYSIS[1]

	ESSENTIAL PERSONAL CHARACTERISTICS	Job Title:		
		Low	*Average*	*High*
SOCIAL SKILLS	1. SELF-EXPRESSION--communicate, ask for assistance, question.			
	2. SOCIABILITY--interact with other employees or public			
	3. WORK INDEPENDENCE--work without supervision or guidance			
	4. APPEARANCE--cleanliness, good mannerisms, neatness in appearance			
	5. TEAMWORK--perform in close coordination with other jobs			
TIME FACTORS	1. PACE--perform at a consistent rate of speed			
	2. ATTENDANCE--be reliable in attendance and punctuality			
	3. SIMULTANEITY--perform several activities at near same time			
	4. TIMING--perform timed, scheduled activities; be aware of time			
PERFORMANCE SKILLS	1. ACCURACY--perform within well-defined tolerances			
	2. DEXTERITY--make fine manipulations, coordinated movement			
	3. CHOICES--select among alternatives, make decisions			
	4. DIRECTION--follow procedures, instructions or directions			
	5. MEMORY--remember locations, procedures, nomenclatures, etc.			
	6. CAUTION--use care in activities which pose personal hazard			
TOLERANCE	1. REPETITIVENESS--have tolerance for monotony or repetition			
	2. PERSEVERANCE--perform continuously, over normal periods			
	3. STAMINA--have physical stamina, strength, resist fatigue			

Location: _____

Supervisor: _____

Address: _____

[1]Adapted from: Peterson, R.O. and Jones, E.M. Guide to Jobs for the Mentally Retarded. Washington, D.C.: American Institutes for Research, 1964.

Form VI.4.4
Reproduction Master

TRAINING AGREEMENT AND PLAN

Hotel/Motel High School Work Experience and Career Exploration Program
Smithville, Texas

Learner: _____ Address _____ Zip _____

Phone _____ Age _____ Birth Date _____ S.S. No. _____

High School _____ Grade _____ Sex _____ M or F

Date Employment Begins _____ Expected Completion Date _____

Starting rate of pay _____ Daily Schedule _____

Total hours per day _____ Maximum hours per week _____

Learner's Cooperative Instructional Team (In-school)

Occupational Instructor _____ Course _____

Special Services Instructor _____ Course/service _____

Teacher-Coordinator _____ Related Course _____

Cooperative Training Site

Employer _____ Address _____ Phone _____

City _____ Supervisor _____
Zip

Job Title: _____

Job Activities	Related Instructional Modules	ID. No.

Responsibilities of Participating Parties

A. *Trainee will abide by the regulations and policies of his employer and the school.*

B. *The employer assumes the responsibility of providing the trainee with the broadest experience in keeping with the job activities.*

C. *The coordinator will arrange for in-school related instruction, consultation, and advisory service to parties concerned with this training program.*

D. *The employment of the trainee shall conform to all federal, state, local laws and regulations, including non-discrimination against any applicant or employee because of race, color, or national origin.*

E. *This training program shall NOT be interrupted without prior consultation between the trainee, employer, and coordinator.*

Signature of Persons Approving This Program:

Learner _____ (Signature) Employer _____ (Signature)

Parent _____ (Signature) Coordinator or School Official _____ (Signature)

Date _____

Self-Check Evaluation

Inservice Experience VI.4: Planning and Coordinating Work Experience Programs

Directions: Once you have compiled an Occupational Training Station Analysis (Form VI.4.3) and Training Agreement and Plan (Form VI.4.4) for a special needs learner, it is appropriate to evaluate your progress in the inservice experience. Rate your completed forms against each of the criteria listed below. After you have completed the evaluation, modify your completed forms as suggested by the results of the evaluation.

Occupational Training Station Analysis

1. Job title clearly identified? ____yes ____no
2. Ratings provided for each of the 18 characteristics? ____yes ____no
3. Location/address of the training station listed? ____yes ____no
4. Supervisor providing the analysis information identified? ____yes ____no

Training Agreement and Plan

1. All descriptive information provided on learner? ____yes ____no
2. All appropriate members of the in-school cooperative instructional team identified? ____yes ____no
3. Descriptive information on the training site provided? ____yes ____no
4. Prospective job activities and related instructional modules listed? ____yes ____no
5. Necessary approval signatures obtained? ____yes ____no

Comments:

Suggestions for Modification of the Occupational Training Station Analysis:

Suggestions for Modification of the Training Agreement and Plan:

Resource Bibliography

The following are specific references which can be reviewed for each of the inservice experiences in this module. These references will offer additional ideas, suggestions, and guidelines.

Inservice Experience VI.1: Analyzing Instructional Materials

Smith, R. M. Clinical Teaching: Methods of Instruction for the Mentally Retarded. New York: McGraw-Hill, 1974.

Weisman, L. et al. A Handbook for Developing Vocational Programs and Services for Disadvantaged Students. Springfield: Illinois Office of Education, 1975.

Inservice Experience VI.2: Providing Reinforcement and Feedback

Homme, L. et al. How to Use Contingency Contracting in the Classroom. Champaign, Illincis: Research Press, 1970.

Smith, R. M. Clinical Teaching: Methods of Instruction for the Mentally Retarded. New York: McGraw-Hill, 1974.

Wallace, G., and Kauffman, J. M. Teaching Children with Learning Problems. Columbus, Ohio: Charles E. Merrill Publishing Company, 1973.

Inservice Experience VI.3: Modifying the Learning Environment

Szoke, C. O. and Vest, S. To Serve Those Who are Handicapped. Springfield: Division of Adult, Vocational, and Technical Education, Illinois Office of Education, 1976.

Yuker, H. E. et al. Educational and School Equipment for Physically Disabled Students, Human Resources Study No. 9. Albertson, New York: Human Resources Center, 1967.

Inservice Experience VI.4: Planning and Coordinating Work Experience Programs

Baxter, J. "Labor Laws and Their Application to Special Education-Vocational Rehabilitation Work Study Program." Lansing: Michigan Department of Education, 1971.

Kimbrell, G., and Vineyard, B. S. Strategies for Implementing Work Experience Programs. Bloomington, Illinois: McKnight Publishing Company, 1972.

Mason, R. E., and Haines, P. G. Cooperative Occupational Education. Danville, Illinois: Interstate Printers and Publishers, 1972.

Smith, R. M. Clinical Teaching: Methods of Instruction for the Mentally Retarded. New York: McGraw-Hill, 1974.

Wiggins, J. E. et al. Guidelines for the Establishment of Work Experience-and-Study Programs for Handicapped Children in Colorado. Denver: Colorado Department of Education and Department of Social Services, 1971.

M O D U L E 7:

EVALUATION OF LEARNER PROGRESS

Assessment and evaluation of the educational progress that special needs learners are making throughout a program is of vital importance. Continuous monitoring and assessment provides information which is useful for: (1) refining the learner's program, (2) describing to employers, parents, and others the learner's occupational competencies, and (3) revising programs to better meet the needs of future special needs learners. Module 7 describes the final component in the assessment and evaluation system for individual learners which is proposed in this series of modules. Module 1 describes the assessment considerations to be made prior to in-instructional planning. Module 5, the second component, describes a format for monitoring progress during instruction. This module presents two inservice experiences. The first experience describes the development of a performance profile for the learner. The second experience presents a process and format for conducting follow-up surveys of special needs learners who have left or completed instructional programs.

Overview

Evaluation of learner progress is an extremely critical aspect of the process of developing and implementing instruction. It occurs during both the development and implementation of instructional plans. It also occurs after the instruction has been delivered when the focus is on assessing which occupational competencies the learner has attained, and how well they have been attained by them. This latter context for evaluation will be the major focus of this module.

Information regarding the progress made by special needs learners during the instructional program can essentially be used for two purposes:

1. To determine what specific performance competencies the participating learners have obtained.

2. To determine what improvements can be made in the instructional planning, implementation, and evaluation process.

There are four audiences which will be concerned with evaluative information on learner progress. These audiences include: (1) prospective employers, (2) parents, (3) future teachers, counselors, or work experience coordinators, and (4) the instructional personnel who are responsible for the current instructional activities.

Each of these four groups are usually interested in different types of evaluative information. Employers, for instance, are interested in what occupational/job competencies the learner has attained. Subsequent teachers are probably more interested in knowing what basic skills are in need of additional remediation. The information needs of each of the audiences is extremely broad. The challenge in designing and implementing a system for evaluating learner progress is to come up with a system which fulfills as many of the diverse information needs as possible, and yet is simple and efficient for teachers to use.

An Evaluation System

An operational and functional system for planning and developing instruction must include an evaluation component or subsystem. Throughout this series of seven inservice modules an evaluation system is outlined. As noted earlier, Module 1 involves evaluation of the special needs learner's specific educational needs. Once identified, these needs form a basis for the individual instructional plan. Module 5, which outlines several processes involved in the development of the instructional plan, includes a disucssion of a format and procedure for monitoring learner progress in the attainment of occupational competencies and basic skills. Module 7 will outline several specific evaluation considerations to be made during and following instruction.

The purpose of the evaluation system is threefold: (1) to compile pertinent and relevant data describing the educational progress of learners at various stages of their program, (2) to utilize the data to improve the instructional and supportive services provided to individual learners, and (3) to improve instructional and supportive services for future learners.

Key Evaluation Questions and Data Collection. The heart of the evaluation system are the key questions it addresses. Data regarding each of the questions are collected at various points in the instructional development system. It may be helpful to refer to the introductory section of this Guide which describes how the seven modules are used in an Instructional Development System (page 4). This will assist you in identifying the points at which evaluation/assessment data are collected.

The key questions and data collection points (which modules and inservice experiences) for the evaluation system are identified on the following page.

Key Question	Data Collection Point
1. *What level of occupational competency has the learner attained?*	*Module 1: Developing a Learner Analysis Profile* *Module 5: Developing Instructional Modules* *Module 7: Developing a Learner Performance Profile*
2. *What basic competencies (basic skills/concepts) has the learner attained?*	*Module 1: Developing a Learner Analysis Profile* *Module 5: Developing Instructional Modules* *Module 7: Developing a Learner Performance Profile*
3. *What occupational interests does the learner exhibit?*	*Module 1: Developing a Learner Analysis Profile*
4. *What revisions appear to be needed in the occupational program for special needs learners?*	*Module 7: Developing a Learner Performance Profile* *Module 7: Conducting a Learner Follow-up Survey*

Performance Levels. A series of performance criteria/levels have been established to provide consistent interpretation of evaluation data throughout the system. Form VII 1.2 on page 307 identifies the specific performance levels which are commonly used throughout the evaluation system for recording the learner's level of progress before, during, and following instruction. In addition to checking pre-specified progress levels, instructional personnel can add descriptive statements to further clarify or describe the learner's level of performance.

Utilization of Evaluation Information. The progress data collected throughout the evaluation system are used in several ways. The information feedback loops in the Instructional Development System (page 4) flow from Module 7. To be effectively utilized, the data collected here are fed back to each of the instructional development functions for such purposes as:

- Defining learner profiles and prescriptions (Module 1)
- Revising instructional plans (Module 5)
- Updating community resource inventories (Module 3)

The progress and evaluation data collected here are also used to:

- Convey the learner's level of progress to employers, parents, counselors, future teachers, and other appropriate persons.
- Suggest general modifications to the occupational program for special needs learners.

Other uses of the information generated by the evaluation system are described fully in both of the inservice experiences in this module.

Two inservice activities are included in this module to acquaint you with two major areas of concern in evaluating learner progress. The first activity focuses on developing a learner performance profile, and includes collecting and reporting progress data describing the learner's development of occupational competencies, and acquisition of basic skills during instruction.

The second activity or inservice experience outlines a process for conducting a follow-up survey of special needs learners for the purpose of collecting information to be used for program modification and improvement.

Mike: A Case Study

Mike is an 18 year old junior with a severe reading problem. He is currently enrolled in both agricultural mechanics and special education classes. Near the end of the first semester, Mike's special education teacher, Ms. Hoxie, and his agricultural mechanics teacher, Mr. Logan, met

on two consecutive days to review and discuss Mike's achievements for the semester. They had been meeting informally every other week or so to evaluate his progress and plan instructional experiences. They felt it necessary at this point, however, to more closely assess what specific competencies Mike has attained and share this information with his parents, Ms. Lotts who will be his co-op coordinator next semester, and other interested persons involved with Mike.

As they discussed their intended progress evaluation, they saw two major purposes for it:

1. They, as well as the other persons mentioned above, would have a more complete and accurate understanding of what occupational and basic skills Mike has attained.

2. With this information, Mike's future teachers and other professionals having involvement with Mike can better address his learning problems and other special needs. They also felt that by carefully assessing Mike's achievement, they would discover areas of their instructional programs and services that could be improved. This was especially important because they see the likelihood of greater numbers of special needs enrolling in agricultural mechanics in the future.

As they began to discuss how they might approach evaluating Mike's performance, a number of logical steps began to appear. First, they were concerned that whatever instruments or techniques they might use be appropriate for Mike. That is, they wanted to select or develop and use evaluation methods that assessed Mike's competencies accurately and reliably. Because of his reading comprehension problem, they agreed that many of the paper and pencil tests Mr. Logan uses with his non-handicapped students would not accurately reflect Mike's understanding of certain concepts learned this semester. The possibility of using a series of performance

tests, verbal identification quizzes, rating scales, or observation checklists in both the agricultural mechanics and special education class was discussed and felt to be more appropriate.

Another concern Mr. Logan and Ms. Hoxie addressed in planning the assessment of Mike's progress was who might receive and use the results in addition to themselves. More specifically they were concerned with how the outcomes could be most effectively conveyed to Mike's:

1. Future teachers
2. Parents
3. Work experience supervisors
4. Prospective employers
5. Counselors

In addition to these individuals, ti was anticipated that the results could be shared with the directors of the special education and occupational education programs, as well as the building principal and counselors and case workers from local agencies such as vocational rehabilitation, mental health, social services, and the employment service.

After considerable discussion it was concluded that the results should reflect as accurately and explicitly as possible the level of competency attained by Mike in specific areas. The traditional letter grade system is not totally appropriate for this purpose because it doesn't describe Mike's accomplishments or abilities descriptively. After reviewing several possible formats for presenting progress assessment information, they decided that a one-page profile, which appeared in a recent journal article was appropriate. Although it's not exactly what they are looking for, they feel it can be adapted and used. The Learner Performance Profile and how it was adapted and used by Mike's teachers is discussed in Inservice Experience VIII.1 in this module.

As Mike's teachers sat in the teacher's lounge and discussed evaluation, several otner high school teachers became interested and involved in the

discussion. One of the concerns expressed by the teachers suggests a need for follow-up information on the students after they graduate. One business education teacher comments "One of the things I would like to know is where my students, including the special needs students from last year, are employed. If I knew more about the problem they encountered, I could improve my course tremendously. Certainly, I get feedback from a few students who come back to visit, but it's not enough nor is it an accurate sample of all the students."

As the conversation among the teachers continues, the principal enters the room. After listening awhile he suggests that those teachers interested in doing a follow-up of their last year's students, form a committee and conduct a follow-up survey. Two of the special education teachers indicate that they would like to have a number of their students from last year included, and offer to share their experiences from having previously done follow-up surveys. Procedures and considerations for conducting follow-up surveys of special needs learners are described in Inservice Experience VII.2 of this module.

Goals

Condition: Given the responsibility to initiate and develop career-oriented educational experiences for special needs learners, upon completion of this module, the inservice participant will:

Performance Competencies:

1. Collect, compile and report progress data on individual special needs learners in an appropriate format.
2. Conduct a follow-up survey of special needs learners.

Inservice Experience Description

This module on evaluating learner progress contains two inservice experiences which are crucial to evaluation of both learner progress and the instructional program. Each is described below in greater detail.

Inservice Experience VII.1:
DEVELOPING A LEARNER PERFORMANCE PROFILE

This inservice experience will involve collecting, compiling, and reporting progress information in individual special needs learners. The development of a Learner Performance Profile is intended to graphically illustrate the attainment of occupational competencies and basic skills by the learner throughout instruction. The product of this experience is a profile which portrays both formative and summative progress data on a selected special needs learner(s) which will be useful information for prospective employers, parents, agency personnel, counselors, and subsequent teachers.

Inservice Experience VII.2:
CONDUCTING A LEARNER FOLLOW-UP SURVEY

This inservice experience will take you through a process for conducting a follow-up survey of previous special needs program participants. In this experience the cooperative team of occupational and special educators will: (1) formulate major evaluation questions for the study, (2) design and develop or adapt an appropriate follow-up instrument, (3) administer the instrument, and (4) summarize and present the results.

Inservice Experience Selector

Following consultation with the inservice director, I (we) have decided to undertake and complete the Inservice Experience(s) checked (✓) below for Module 7.

_____ Inservice Experience VIII.1: Developing a Learner Performance Profile

_____ Inservice Experience VII.2: Conducting a Learner Follow-up Survey

Date: _____

School: _____

Inservice Director:

_____

Participant Name(s)

_____

_____

_____

_____

INSERVICE EXPERIENCE VII.1

DEVELOPING A LEARNER PERFORMANCE PROFILE

The purpose of evaluating learner progress is twofold: (1) to provide feedback to the instructor(s) which allows for verification of learner attainment of selected competencies, and (2) to assist the instructor(s) in diagnosing learning difficulties. The latter of these two purposes was introduced in Module 1: Learner Identification and Analysis. In Module 1 emphasis was given to pre- or early instructional assessment for purposes of diagnosing learning problems. This module will focus on interim and post-instructional assessment for the purposes of verifying: (1) which occupational competencies and basic skills/concepts have been attained by the learner, (2) how well they have been attained.

Guidelines and Suggestions

A series of guidelines and suggestions follow which will: (1) present an overview of a format for a learner performance profile, and (2) discuss several techniques and special considerations for collecting learner progress data.

1. One of the initial considerations when reporting evaluation results describing learner progress should be developing a format appropriate for the audience. Generally, there are several audiences for evaluation results on special needs learners. They include:

   - Prospective employers
   - Guidance counselors
   - Parents
   - Outside training agencies

- Special service agencies (e.g., Vocational Rehabilitation Services)
- Teachers and other instructional personnel currently working with the student
- Future teachers and educational personnel

2. In recent years, profiles have emerged as a useful and functional method of reporting evaluative results for all learners. This trend has occurred primarily because the traditional grade reports have often failed to meet our informational needs. Employers, in particular, have asked for descriptive information on the individual's attained level of competency within the occupational program. Reporting that the learner is competent in operating a specific type of key punch machine tells an employer much more than simply reporting a grade of "C" in a data processing course.

3. A sample Learner Performance Profile is presented on the following pages (Form VII.1.1). You will note that this profile is divided into two parts: Part A: Occupational Competency Assessment and Part B: Basic Skill/Concept Assessment. Form VII.1.2, which follows the profile form, is a cover sheet containing information describing the learner. It also provides interpretations for each of the progress levels mentioned in the form. The following items will discuss the various sections of the profile form and cover sheet and processes for using each.

/RESOURCE MATERIALS: *Learner Performance Profile, Form VII.1.1*
Profile Cover Sheet, Form VII.1.2/

Learner Performance Profile

1. In keeping with the theme of individualized programming and instruction that is found throughout this series of modules, the Learner Performance Profile is considered an individual report card. The name of the individual is placed in the upper right corner of the form on both sides.

2. As noted earlier, Part A of the profile focuses on assessment of specific occupational competencies. On the front side of the form there are spaces for occupational tasks to be evaluated. A task is the basic unit/instructional module which was discussed and developed in Module 5. For each task unit, a descriptive task statement/title should be placed in the box on the left of the form. The task units listed for a special needs learner should be identical to the task units or modules developed for him in Module 5.

LEARNER PERFORMANCE PROFILE

PART A: Occupational Competency Assessment Learner: Dee

OCCUPATIONAL TASKS	LEARNER PROGRESS: Introduced	Involved	Productive	Employable	DESCRIPTIVE ASSESSMENTS	DATE
Completing a credit card sales transaction	✓				1 Familiar with the information on a credit card	9-16
			✓		2 is competent in most steps of the procedure	9-23
				✓	3 Can complete transaction with 95-100% accuracy	9-25
Use an adding machine for multiplication / division					1	
			✓		2 Is familiar with keyboard and can do simple problems	9-13
				✓	3 Can prepare complex problems accurately	9-20
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	

PART B: Basic Skill/Concept Assessment Learner: Joe

BASIC SKILLS/CONCEPTS	LEARNER PROGRESS	Introduced	Developing	Competent	DESCRIPTIVE ASSESSMENTS	DATE
Recognize numbers and keyboard symbols					1	
			✓		2 Can readily identify all number keys	9-5
				✓	3 Knows special keys and their function	9-12
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	

3. Four different levels of learner progress are used in Part A of the profile. Detailed descriptions of each of these criterion levels are provided on the cover sheet of the profile. In assessing the level of learner progress on a given task, an "x" or check (✓) is placed in the appropriate box and the date of the assessment (rating) is noted in the far right column.

4. To the immediate right of the rating columns, three spaces are provided. These spaces are designed for the instructional team to use in describing the specific, operational level of performance attained by the learner. Ideally, special needs learners should be evaluated prior to the instruction (preassessment), during (interim assessment), and at the termination of instruction (post-assessment). As each level of progress is attained, specific descriptive criteria should be added for each rating.

   For instance, suppose that at the time of the first rating a learner is rated as "employable" in a given task. Greater understanding of what is meant by the "employable" rating is also needed. Under "Descriptive Assessments" the instructional team would provide a brief statement indicating that for the task of "typing business letters" the learner can already perform this task at "40 words/minute with less than 2 errors." This latter phrase would be needed to describe specifically what is meant by the rating of "employable." Similar descriptive assessments should be entered on the profile form whenever a rating is made.

5. The back side of the profile (Part B) involves compiling assessment results on the learner's attainment of basic skills/concepts. Here the basic skills/concepts in which specific remediation or special instruction is given should be listed. Not all basic skill areas need to be listed--only those for which specific instruction was provided.

   The three levels of learner progress for Part B are identical to those identified on the instructional module form in Module 5. If, as the example suggests, the occupational instruction focused on stock handling, one of the basic skills taught by the special education teacher may have been "reading requisition forms" or "adding column totals". The learner's progress in each of these basic skills is assessed and rated periodically in a manner similar to that used in Part A. Check marks or dots can be placed in the appropriate boxes when certain levels of progress are achieved. Here again, brief descriptive assessment statements should also be provided.

6. Reference to the Learner's Analysis Profile (developed in Module 1) should be made when Part B is being compiled. The Learner Analysis Profile outlined the learner's strengths and weaknesses in several basic skill/concept areas. Based on your team's current assessment of the learner's basic skill/concept attainment it may be necessary to modify or update the Learner Analysis Profile.

Cover Sheet

1. The Learner's name, occupational goal, program, and school should be clearly identified for parents, employers, and others who will be referring to the profile.

2. Spaces are also provided for identification of the learner's instructors. Occupational instructors, special/basic education instructors, work experience coordinators, or other members of the instructional team are to be listed here. You will recall that Module 2 involved the development of a Cooperative Instructional Arrangement for the special needs learner. This arrangement specified who the members of the instructional team were, and in what capacity they were working with the learner.

3. This cooperative instructional team should meet regularly to evaluate learner progress. Part A of the profile, which relates to the attainment of occupational competencies, is the primary responsibility of the occupational instructor or the work experience coordinator. While it is the occupational instructor or coordinator who appears to have the major responsibility for evaluation, it is important that the special education representative be involved in discussing and analyzing the ratings for each occupational task.

   Similarly, the occupational instructor or work experience coordinator must be involved in the basic skill assessment (Part B). Since many of the basic skills are demonstrated through the performance of the occupational tasks, the instructors from both areas must share a common responsibility in evaluating how well a learner has attained the basic skills needed for entry employment.

4. Specific definitions for each of the progress levels are also provided on the cover sheet. This information is essential if the reader is to determine the level of performance actually attained by the learner. Different progress levels or definitions could readily be developed if these are found to be inappropriate. It is important to note, however, that these progress levels are also used on the instructional planning module described in Module 5. If changes are made in the progress level descriptors used here they should also be made on the instructional planning module.

PROFILE COVER SHEET

A LEARNER PERFORMANCE PROFILE

for

Joe

Occupational Goal: Retail Clerk
Cluster/Program: Retailing
School: Lee Washington High

Instructors: Ms. Hamilton, Retailing
Mr. Joshua, Resource Room

The above-named student has demonstrated the occupational skills described by the attached form. The criteria described below can be used to interpret the level of skill development attained by the student.

Occupational Performance

- *Introduced - the student/learner has become acquainted with the general task, as well as its function and/or purpose through previous experiences or instruction. However, the learner has not yet begun to develop or demonstrate any significant, recognizable competency in performing the task.*
- *Involved - the student/learner has begun to develop and/or demonstrate minimal competence in performing a few selected parts (subskills) of the task.*
- *Productive - the student/learner has developed and/or demonstrates a minimal level of competence in performing several parts (subskills) of the task. The student/learner would be employable in specialized, entry level occupations requiring only minimal skills.*
- *Employable - the student/learner has developed and/or demonstrates a level of competency which would make him/her employable in a normal, competitive work setting.*

Basic Skills/Concepts Content

- *Introduced - the student/learner has become acquainted with the basic skill or concept through previous experience and/or instruction.*
- *Developing - the student/learner has demonstrated some capacity to perform the basic skill, and/or interpret and apply the basic concept.*
- *Competent - the student/learner is capable of accurately and repeatedly performing the basic skill, or interpreting and applying the basic concept.*

LEARNER PERFORMANCE PROFILE

PART A: Occupational Competency Assessment *Learner:*

OCCUPATIONAL TASKS	LEARNER PROGRESS: Introduced	Involved	Productive	Employable	DESCRIPTIVE ASSESSMENTS	DATE
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	

PART B: Basic Skill/Concept Assessment Learner:

BASIC SKILLS/CONCEPTS	LEARNER PROGRESS	Introduced	Developing	Competent	DESCRIPTIVE ASSESSMENTS	DATE
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	
					1	
					2	
					3	

PROFILE COVER SHEET

A LEARNER PERFORMANCE PROFILE

for

_____

Occupational Goal: _____ **Instructors:** _____

Cluster/Program: _____ _____

School: _____ _____

The above-named student has demonstrated the occupational skills described by the attached form. The criteria described below can be used to interpret the level of skill development attained by the student.

Occupational Performance

- *Introduced - the student/learner has become acquainted with the general task, as well as its function and/or purpose through previous experiences or instruction. However, the learner has not yet begun to develop or demonstrate any significant, recognizable competency in performing the task.*
- *Involved - the student/learner has begun to develop and/or demonstrate minimal competence in performing a few selected parts (subskills) of the task.*
- *Productive - the student/learner has developed and/or demonstrates a minimal level of competence in performing several parts (subskills) of the task. The student/learner would be employable in specialized, entry level occupations requiring only minimal skills.*
- *Employable - the student/learner has developed and/or demonstrates a level of competency which would make him/her employable in a normal, competitive work setting.*

Basic Skills/Concepts Content

- *Introduced - the student/learner has become acquainted with the basic skill or concept through previous experience and/or instruction.*
- *Developing - the student/learner has demonstrated some capacity to perform the basic skill, and/or interpret and apply the basic concept.*
- *Competent - the student/learner is capable of accurately and repeatedly performing the basic skill, or interpreting and applying the basic concept.*

Self-Check Evaluation

Inservice Experience VII.1: Developing a Learner Performance Profile

Directions: Rate your completed Learner Performance Profile (Form VII.1.1) on each of the following items by circling the appropriate number in the three-point scale or by checking the appropriate blank. After completing this evaluation, you will want to adjust or modify your Learner Performance Profile accordingly. All responses should be affirmative.

1. Learner identified: _____yes _____no

2. Occupational program identified: _____yes _____no

3. School identified: _____ yes _____no

4.	Assessment done by one teacher	1	2	3	Assessment done with input from all members of the cooperative instructional team
5.	Descriptive assessments for each rating not provided	1	2	3	Descriptive assessments included for all ratings
6.	Descriptive assessments are vague	1	2	3	Descriptive assessments are concise and specific
7.	Progress level ratings appear to be inconsistent between tasks	1	2	3	Progress level ratings appear to be highly consistent between tasks

8. Dates are provided for each descriptive assessment: _____yes _____no

Comments:

Suggestions for Modification of Learner Performance Profile for this Learner:

INSERVICE EXPERIENCE VII.2

CONDUCTING A LEARNER FOLLOW-UP SURVEY

Follow-up services have been recognized for several years as a critical aspect of successful job placement for special needs learners. One aspect of providing follow-up services is the conducting of a formal follow-up survey. The basic purpose of such a survey is to determine what problems, if any, are encountered by special needs learners in their transition from school to work, and to utilize this information in modifying and improving instructional programs and services. Generally, this process leads to fewer difficulties and barriers for currently enrolled learners when they complete their school to work transition.

Guidelines and Suggestions

Several steps need to be taken in designing and conducting a follow-up survey. The following guidelines and suggestions will map out steps for planning, instrument development, administration(s), and compiling the results. Many of the suggested procedures outlined below are drawn from two publications of the Illinois Division of Adult, Vocational, and Technical Education's Locally-Directed Evaluation project. Some of the suggestions are pertinent to the design and conduct of a follow-up activity for all program graduates; however, many of the suggestions discuss unique aspects or special considerations to be made in following-up special needs learners.

1. Initially, the team of occupational and special education staff interested in the follow-up activity have to be identified. The make-up of this team will, to some extent, also determine the scope of the survey as it is planned.

2. A review of recent follow-up surveys done in your district will be helpful in determining what the current information needs are regarding follow-up surveys. It will also help to identify any existing instruments or procedures that have been used previously. A meeting with those personnel who may have conducted similar student surveys is helpful in recognizing potential problems and difficulties encountered in earlier surveys.

3. Discuss and determine the anticipated outcomes of the survey. What major questions do you hope to be able to answer with the information collected in the survey?

4. Determine the specific scope of the survey. Will you follow-up last year's learners or will you include graduates from the last five years? Will you include current students? Will you attempt to follow-up the dropouts also? Will you follow-up special needs learners from all occupational programs or just selected programs? Each of these are questions that have to be addressed regarding scope.

5. Once the scope and general purposes of the survey are determined, the team should attempt to define the major evaluative questions that will guide the formulating of a follow-up instrument. This series of questions should attempt to focus on the general objectives of individual courses and instructors or supportive personnel, e.g., counselors or reading specialists. You may want to consider major evaluative questions such as the following.

   - What is the current status of previous special needs learners?
   - How do the previous learners feel about the value and benefit of the supportive, special services they received?
   - How do the previous learners perceive the value of the occupational education program(s) in terms of preparing them for the world of work?

6. The next task involves selecting a method for conducting the survey (i.e., personal interview, telephone interview, or mail questionnaire). Each method has several advantages and disadvantages. Some of the considerations here should focus on the types of disabilities found in the population being followed-up. It is obviously impossible to

use a telephone follow-up with deaf individuals who rely on lip reading or signing for communication. Other considerations will be more involved and include such factors as:

- size of the group to be followed up
- financial resources available for printing, interviewing, postage, etc.
- number of people involved in conducting the survey

Developing an Instrument

1. For each of the major evaluation questions defined earlier (Step 4), a series of more specific questions should be developed. The answers to these questions will answer the larger, major question. It is easiest for each member of the team to write questions on separate index cards, with each person working on a different major evaluative question. After these questions are reviewed and edited by the group, they then become the questions for the first draft of the instrument.

   /RESOURCE MATERIAL: *Major Evaluation Question and Related Instrument Questions, Form VII.2.1*/

2. In preparing the questions and directions for the instrument, several special considerations will have to be made due to the special nature of the respondent's style of communication. Form VII.2.2 on the following page identifies several unique considerations that might have to be made for respondents who have hearing, visual, motor, or other types of impairments. The suggestions are only the major concerns. Others can be identified special educators, reading specialists, social workers, and other members of the team who are knowledgeable regarding what will facilitate or inhibit the former learners.

3. Two types of directions are needed on any follow-up instrument. Overall directions are presented first in the instrument. This set of directions should emphasize the purpose of the survey and indicate the desired date by which it is to be returned. Additional directions should be included where there is a change in format. This will help the respondent to adapt to a new method of responding.

   /RESOURCE MATERIAL: *Special Considerations in Developing Follow-up Instruments, Form VII.2.2*/

MAJOR EVALUATION QUESTION AND RELATED

INSTRUMENT QUESTIONS

What is the current status of previously-enrolled special needs learners (1971-76)?

- Are you currently employed?
- What is your present occupation?
- How many times have you changed jobs since leaving school?
- How many hours per week do you work?
- What is your weekly salary before taxes?

SPECIAL CONSIDERATIONS IN DEVELOPING FOLLOW-UP INSTRUMENTS

-- Preparing the directions, questions, or items

- o Keep the vocabulary and language simple and concise
- o Keep the sentence length short
- o Attempt to use words/phrases that will not require finger spelling by interpreters for the deaf
- o Test the readability level of the instrument using an appropriate readability assessment formula (See Inservice Experience VI.1 in Module 6)
- o Consider alternative forms for the instrument, such as putting the questions on a cassette tape, brailling the instrument, large print, or translation of the instrument to a native language.

-- Selecting the rating or response format

- o Consider using nonverbal scales


positive


neutral


negative

- o Use large response boxes for those who have difficulty with fine motor coordination
- o Consider using a tape recorded series of questions where students can stop the recorder and orally respond or by brailling their response.

4. The instrument should be reviewed and pilot tested. It can be thoroughly field tested on students in school. It should be reviewed for content by administrators, fellow faculty members, and advisory committee members.

5. A language analysis of the instrument should also be completed to be sure that it can be readily understood by special needs learners. If, for example, an interview instrument was being prepared for deaf students, it would be critical to use words that could be translated to sign language.

6. Following these reviews and a pilot test, the appropriate revisions should be made.

7. The revised instrument is then ready for reproduction in the appropriate quantity. If the instrument is to be a mailed questionnaire, printing on colored paper will improve the response rate according to some recent research studies.

8. As noted earlier, at least three different types of follow-up surveys could be used:

   - Mail survey
   - Personal interview
   - Telephone interview

   Each has advantages and disadvantages. The mail survey typically yields a very low return, partly because the forms are usually quite lengthy and require considerable time to complete. On the other hand, interview surveys are much more expensive to conduct because of the personnel and staff time required. Selecting the method of survey will depend upon the situation and resources available. Any of the above three types could be appropriate, however.

9. An example of a mail questionnaire and an interview guide are presented on the following pages. Both of these instruments were adopted from ones that have been used by local school personnel in following-up special needs learners. These example instruments can be reviewed for:

   - Example questions
   - Sequence of questions
   - Descriptive information
   - Format ideas

[RESOURCE MATERIALS: Former Student Survey Questionnaire, Form VII.2.3
Former Student Interview Guide, Form VII.2.4]

Administering the Instrument(s)

1. The first task in this phase is to collect all of the names of former students who will be contacted. Many schools have this information available through counseling, placement, or student services offices. Some schools require students to fill out information cards prior to graduation that can be used in later follow-up surveys.

If the mail survey method is used . . .

2. Prepare the envelopes, using addresses that are reasonably current.

3. Prepare a simple and brief cover letter describing the purpose of the survey, and using the signature of an individual who was involved with and respected by the special needs learner(s) of the district. An example cover letter is presented in Form VII.2.5.

   /RESOURCE MATERIAL: *Sample Cover Letter for a Learner Follow-up Questionnaire, Form VII.2.5*/

4. Code the instruments in order to determine who responds to the first mailing and who will receive follow-up letters.

If the interview method is used . . .

5. Before finalizing a set of procedures for interviewing, it would be helpful to review the special considerations listed on Form VII.2.6 for administering follow-up studies to special needs groups. These suggestions apply almost exclusively to using the interview method.

   /RESOURCE MATERIAL: *Special Considerations in Administering Follow-up Instruments, Form VII.2.6*/

6. Using the interview method will require developing an introductory statement to be used by the interviewer. The introduction should be warm, friendly, establish rapport, and convey the purpose of the interview. The basic purpose of the survey should be outlined (see Form VII.2.5).

7. Those individuals who will do the interviewing will have to be: (1) trained in the general principles of interviewing, (2) oriented to specific features of the instrument, and (3) acquainted with the standard introductory statement mentioned in item 6.

FORMER STUDENT SURVEY QUESTIONNAIRE

Evaluation of Special Needs Services

1. NAME:_____Birthdate_____Age____Sex_____

2. ADDRESS:_____City_____Zip____Phone_____

3. Name of High School attended (circle one): Eisenhower Richards

4. Please check your present status:

____Part-time student/part-time employed
____Employed full-time
____Full-time student
____Armed Forces
____Other, please describe:_____
____Apprentice training
____Housewife
____Unemployed, looking for work
____Unemployed, not looking for work

5. If employed, describe the work you are presently doing:_____

_____

6. How long have you been employed? _____

7. Please list any previous work:

Employer	Dates
_____	_____
_____	_____
_____	_____

8. Which of the courses you took in high school were most helpful to you in your present job?

_____ _____

9. Why do you feel these courses were helpful?_____

_____

10. What part of your high school vocational program was of least value to you?

_____

11. Why?_____

_____

12. Check the services you received while you were a student at District 218. If you check a service, please rate its value to you by circling a number on the right.

	No Value	Some Value	Very Valuable
____ Counseling	1	2	3
____ Social worker	1	2	3
____ Nurse	1	2	3
____ Summer Math and Reading	1	2	3
____ Interpreter	1	2	3
____ Reading Lab	1	2	3
____ Job counseling	1	2	3

13. After having taken the vocational courses I found that:

a) I had the training necessary to get my job ____ yes ____ no

b) I had enough training to advance in my job ____ yes ____ no

c) My job is one that matches my ability ____ yes ____ no

d) I received enough information on how to fill out a job application ____ yes ____ no

e) I received enough information about how to prepare for an interview ____ yes ____ no

14. Did you graduate? ____ yes ____ no

15. If no, what grade did you complete? ____ 9 ____ 10 ____ 11

16. If you left school before graduation, what were your reasons?

_____

17. Do you need additional vocational training? ____ yes ____ no

18. If yes, please describe the type of vocational training you need:_____

_____

(Adapted from Community H.S. District #218, Worth, Illinois 60482)

FORMER STUDENT INTERVIEW GUIDE

Respondent's Name: _____

Year of Graduation: _____ Interviewer: 1 2

1. What is the name of the place where you work? _____

_____

2. What kind of work do you do at your job? _____

_____

3. How many hours per week do you work? _____

4. Do you feel that you do good work?

Yes 1
No 2
Pretty good . . 3

5. Is your work as good as other employees' work?

Better 1
Yes 2
Not as good . . 3

6. Does your boss like your work?

Yes 1
No 2
Somewhat . . . 3

7a. Do you think ISD had enough vocational courses to choose from?

Yes 1
No 2

7b. What other courses would you have liked that they did not offer at ISD?

_____ _____

_____ _____

8. Did you have a chance to take courses at ISD that would help you in your job?

Yes 1
No 2

9. What did you like the most about ISD?

Classes 1
Counselors 2
Teachers 3
On-the-job training . 4
Other _____ . 5
(please specify)

10a. Do you feel your ISD experience prepared you enough to go to junior college or some other job training school?

Yes 1
No 2

10b. What was lacking? _____

_____

11. Here is a rating scale. How would you rate the quality of the ISD vocational teachers?

Really good	1
Good	2
Okay	3
Not too good	4
Bad	5

12. What suggestions do you have improving the ISD program?_____

_____

_____

SAMPLE COVER LETTER FOR A LEARNER FOLLOW-UP SURVEY QUESTIONNAIRE

(school letterhead)

Dear (first name),

By taking a few minutes of your time you can provide valuable information which will help us improve our vocational program.

Your responses will not be shared with others, but will become a part of a summary. The comments you and other students make will identify areas for improvement and change.

Please complete the attached questionnaire and return it in the enclosed envelope. We are looking forward to hearing from you. Your assistance is greatly appreciated.

Sincerely,

Note: Similar introductory information should be conveyed if a telephone or personal interview is used for the follow-up survey.

(Adapted from Community U.S. District #218, Worth, Ill. 60482)

SPECIAL CONSIDERATIONS IN ADMINISTERING FOLLOW-UP INSTRUMENTS

- Have the questions presented orally so they can be simplified and clarified as needed
- Administer the survey instrument orally to individuals or small groups
- Use a total communication approach that includes lip reading, signing, and finger spelling when administering the instrument to a hearing impaired student
- Permit students to respond in a brailled or tape recorded format
- Use bilinguists in interpreting and orally presenting the follow-up questions for students who use English as a second language

8. As the completed questionnaires or interview forms are returned, they should be tabulated and noted as returned.

9. Those who fail to respond to the mailed questionnaire by two weeks after the requested deadline should receive a follow-up reminder card and another instrument. The follow-up could also be conducted by telephone.

Compiling and Utilizing the Results

1. Once an acceptable percent of the questionnaires or interview guides have been returned, the results can be tabulated. This tabulation work can be done by clerical workers, business education students, or, if all else fails, the members of the team. When large samples are involved (over 200) the computer can be efficiently utilized to summarize the data.

2. The summary data can be presented in a variety of ways. The most effective reporting format is to outline the procedures and provide tallies of each of the individual questionnaire or interview items. Straight tallies, histograms, bar graphs, percentages, or averages could be used.

3. The reporting format should be designed to provide for direct interpretation of the results. The results are of little value unless they are translated into program improvements. Form VII.2.7 presents a format for presenting summary information for each survey question. This example utilizes information from two sources: an employer survey and a parent survey. In order to be fully effective, the summary statistics for each question should be interpreted in the form of a conclusion(s) and a series of recommended actions to be initiated.

   /RESOURCE MATERIAL: *Summary Information--Parent and Employer Follow-up Study, Form VII.2.7*/

4. Reporting format used will also depend a great deal upon the audience of the report. Prospective audiences for a follow-up study of special needs learners might include:

   - all special education staff
   - school board
   - citizen or occupational advisory committees
   - regular instructional staff
   - parents
   - students
   - counselors
   - all occupational education staff

5. As the results are tabulated and developed in the first draft of a report, recommendations should be solicited from a select group of readers. The instructional team should then synthesize their interpretations of the data with the initial reactions of a number of the reviewers. A set of recommendations should then be added to the report as a concluding section. The recommendations and suggested actions to follow should also outline who has the responsibility for implementing the recommendations.

6. A follow-up survey and report will only result in program improvement if the team conducting the follow-up continues an active interest in seeing the recommendations implemented. Members of the team have to make themselves available to review and discuss the findings with school boards, parents, school staff, and other groups that have an interest in the special needs program.

SUMMARY INFORMATION--PARENT AND EMPLOYER FOLLOW-UP STUDY

Survey Question	Summary Data[1]	Conclusion	Recommended Action
Which special services (from those received by the above-named student) do you feel needs to be strengthened?			
a. remedial reading	70% parents 67% employers	Both parents and employers appear highly dissatisfied with the remedial math and reading programs	Consider alternatives for improving and strengthening both programs Seek more specific information from selected parents and employers Hold administrative staff meeting to review both programs Devote one advisory committee meeting to discussion of improvements needed
b. remedial math	83% parents 90% employers		
c. vocational counseling	22% parents 83% employers	Employers appear to be highly dissatisfied with counseling services	Interview selected employers to gather more specifics
d. speech therapy	18% parents[2]	Parents appear pleased with the services the district is providing in these areas	Continue to offer and expand these services in the future as needed
e. social worker	15% parents[2]		
f. bilinguists/interpreters	5% parents[2]		
g. job placement	36% parents 52% employers	Employers feel that this service needs strengthening. A substantial number of parents agree.	Assess current job placement services Interview selected employers to ascertain areas of needed improvement

[1] Percentage of parents and/or employers who responded "yes". The total number responding to each question was different because all students did not receive all services while in school.

[2] Only parents were asked to respond to this item.

Self-Check Evaluation

Inservice Experience VII.2: Conducting a Learner Follow-up Survey

Directions: After having completed a Learner Follow-up Survey, please use the checklist below to evaluate your activities. The results of this self-check evaluation will help you to see areas in which your procedures or report could be improved. All responses should be affirmative.

1.	Previous follow-up studies were examined:				_____ yes _____ no
2.	Major evaluation questions identified:				_____ yes _____ no
3.	Specific questions on instrument developed from major evaluation questions:				_____ yes _____ no
4.	Survey format (i.e., mail questionnaire or interview) inappropriate for the specific special needs population	1	2	3	Survey format appropriate for the specific special needs population being surveyed
5.	Cover letter/introductory statement is confusing unclear, and inappropriate for special needs learners	1	2	3	Cover letter/introductory is clear, concise, and appropriate for special needs learners
6.	Directions for completing the instrument are confusing unclear, and inappropriate for respondent or interviewer	1	2	3	Directions for completing the instrument are clear, concise, and appropriate for respondent or interviewer
7.	Questions/items are unclear and inappropriate for special needs learners	1	2	3	Questions/items are appropriate and clear
8.	The format for responding is inappropriate	1	2	3	The format for responding is appropriate and functional
9.	If a mail questionnaire was used, at least one follow-up was completed:				_____ yes _____ no
10.	Tentative recommendations were solicited from selected decision-makers prior to development of the report:				_____ yes _____ no
11.	Report prepared and submitted to the appropriate decision-making groups, e.g., school board, advisory committee, etc.:				_____ yes _____ no

12. Report contains detailed responses for each of the key questions identified when the survey was planned? _____ yes _____ no

13. Report contains the following:

Summary statistics for pertinent survey items _____ yes _____ no

General and specific conclusions _____ yes _____ no

Recommended improvements or courses of action _____ yes _____ no

Designation of responsibility for implementation of program improvements or courses of action _____ yes _____ no

Comments:

Suggestions for modification of survey procedures:

Suggestions for modification of survey format/content:

Resource Bibliography

The following are specific references which can be reviewed for each of the inservice experiences in this module. These references will offer additional ideas, suggestions, and guidelines.

Inservice Experience VII.1: Developing a Learner Performance Profile

Erickson, R. C. and Wentling, T. L. Measuring Student Growth: Techniques and Procedures for Occupational Education. Boston: Allyn and Bacon, Inc., 1975.

Gagne, R. M. and Briggs, L. J. Principles of Instructional Design. New York: Holt, Rinehart, and Winston, Inc., 1974.

Gathany, N. A., and Coogan, J. P. Job Profile Your Students. School Shop. November, 1975, 35 (3), pp. 40-41.

Gearheart, B. R. and Willenberg, E. P. Application of Pupil Assessment Information for the Special Education Teacher. Denver, Colorado: Love Publishing Company, 1974.

Inservice Experience VII.2: Conducting a Learner Follow-up Survey

Wentling, T. L. and Lawson, T. E. Evaluating Occupational Education and Training Programs. Boston: Allyn and Bacon, Inc., 1975.

Felstehausen, J. L. A One-Year Follow-Up Survey: Occupational Program Alumni. Final Project Report. Charleston: School of Education, Eastern Illinois University, 1974.