This module, one in a series of performance-based teacher education learning packages, focuses on a specific skill that vocational educators need to create appropriate learning environments and to plan and manage instruction that is well-suited to the learning and psychological needs of today's adults. The purpose of the module is to provide the teacher with knowledge of how instructional planning is accomplished at different levels and the skills needed to begin to plan effective instruction for adult learners. Introductory material provides terminal and enabling objectives, a list of resources, and general information. The main portion of the module includes three learning experiences based on the enabling objectives: (1) demonstrate knowledge of conventional and competency-based instructional planning; (2) critique a given lesson plan; and (3) critique a case study on planning instruction for adult learners. Each learning experience presents activities with information sheets, samples, worksheets, checklists, and self-checks with model answers. Optional activities are provided. Completion of these three learning experiences should lead to achievement of the terminal objective through the fourth and final learning experience that requires (1) an actual teaching situation in which to plan instruction for adults, and (2) a teacher performance assessment by a resource person. An assessment form is included. (YLB)
Plan Instruction for Adults
FOREWORD

This module is one of a series of over 130 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of occupational instructors (teachers, trainers). The competencies upon which these modules are based were identified and verified through research as being important to successful teaching. The modules are suitable for the preparation of instructors in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the instructor’s performance of the specified competency. The materials are designed for use by teachers-in-training, working individually or in groups under the direction and with the assistance of teacher educators or others qualified to act as resource persons. Resource persons should be skilled in the teacher competencies being developed and should be thoroughly oriented to PBTE concepts and procedures before using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based training programs for preservice and inservice instructors, as well as business-industry-labor trainers, to meet a wide variety of individual needs and interests. The materials are intended for use by local education agencies, postsecondary institutions, state departments of education, universities and colleges, and others responsible for the professional development of instructors.

The PBTE modules in Category N—Teaching Adults—are designed to enable adult instructors to create appropriate learning environments and to plan and manage instruction, that is well suited to the learning and psychological needs of today’s adults. The modules are based upon 50 competencies identified and verified as unique and important to the instruction of adults.

Many individuals have contributed to the research, development, field review, and revision of these training materials. Appreciation is extended to the following individuals who, as members of the DACUM analysis panel, assisted National Center staff in the identification of the competency statements upon which this category of modules is based: Doe Hentschel, State University of New York at Brockport; David Holmes, Consortium of the

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THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
590 KENNY ROAD COLUMBUS OHIO 43210

The National Center for Research in Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning, preparation, and progression. The National Center fulfills its mission by:

- Generating knowledge through research.
- Developing educational programs and products.
- Evaluating individual program needs and outcomes.
- Providing information for national planning and policy.
- Installing educational programs and products.
- Operating information systems and services.
- Conducting leadership development and training programs.

AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS
The National Institute for Instructional Materials
120 Driftmier Engineering Center
Athens, Georgia 30602

The American Association for Vocational Instructional Materials (AAVIM) is a nonprofit national institute. The institute is a cooperative effort of universities, colleges and divisions of vocational and technical education in the United States and Canada to provide for excellence in instructional materials. Direction is given by a representative from each of the states, provinces and territories. AAVIM also works closely with teacher organizations, government agencies and industry.
Plan Instruction for Adults
INTRODUCTION

Many familiar scenes would probably greet you if, as a visitor, you wandered the hallways of a school, college, or business/industry training department. You would see some instructors standing at the front of the classroom, writing hurriedly across the chalkboard. Others might be showing films or operating overhead projectors.

You would see learners arranged in classrooms in neat, symmetrical rows; collected in discussion groups; watching instructor demonstrations; or perhaps working alone at laboratory stations or in shops. Some might be huddled over computer terminals.

These images are familiar to all of us, yet the extensive planning required to produce the scenes you witnessed may not be as familiar to you. To understand the planning inherent in the scenes just described, you must look below the surface of visible activity and consider what took place long before the first student walked through the classroom door.

Even the instructor—the good instructor—who appears to be "winging it" is usually operating from some type of lesson or learning plan. In the case of an experienced instructor, the plan may be mostly tucked away in his or her head, with only the essential elements written down, perhaps in outline form. But the plan is there. At some point that instructor created a detailed plan and then—through extensive use, evaluation, and modification—internalized the plan so that it became an integral part of his or her teaching.

Most important, this type of plan—the individual instructor's plan—is but one element of a larger plan. The overall plan results from the combined efforts of many people, who collectively develop programs, courses of study, and a total instructional system, based upon the needs of students, instructors, business, industry, and society.

In short, high-quality instruction does not just happen. Just as a builder would be foolish to begin construction of a skyscraper without blueprints, an instructor would be ill-advised to begin instruction without well-defined instructional plans.

The first learning experience in this module provides an overview of the overall instructional planning process. The second covers the development of individual lessons. The third focuses on planning instruction specifically to meet the needs of adults. Successful completion of this module will provide you with knowledge of how instructional planning is accomplished at different levels and the skills you need to begin to plan effective instruction for adult learners.
ABOUT THIS MODULE

Objectives

Enabling Objectives:
1. After completing the required reading, demonstrate knowledge of the conventional and competency-based approaches to instructional planning (Learning Experience I).
2. After completing the required reading, critique a given lesson plan (Learning Experience II).
3. After completing the required reading, critique the performance of an instructor in a given case study in planning instruction for adult learners (Learning Experience III).

Prerequisites
To complete this module, you must have knowledge of the characteristics of adult learners and the process of adult development. If you do not already meet this requirement, meet with your resource person to determine what method you will use to do so. One option is to complete the information and practice activities in the following module:
- Prepare to Work with Adult Learners, Module N-1

Resources
A list of the outside resources that supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions or in assessing your progress at any time.

Learning Experience I
Optional

Videos: equipment to use in viewing the videotaped presentation.
A teacher or curriculum specialist, experienced in developing courses, whom you can interview concerning effective course development procedures.

Learning Experience II
Optional
Sample lesson plans or lesson plan formats, specific to your instructional area, that you can review.

Learning Experience III
Optional

Learning Experience IV
Required
An actual teaching situation in which you can plan instruction for adults.
A resource person to assess your competency in planning instruction for adults.
General Information

For information about the general organization of each performance-based teacher education (PBTE) module, general procedures for its use, and terminology that is common to all the modules, see About Using the National Center’s PBTE Modules on the inside back cover. For more in-depth information on how to use the modules in teacher/trainer education programs, you may wish to refer to three related documents:

The Student Guide to Using Performance-Based Teacher Education Materials is designed to help orient preservice and inservice teachers and occupational trainers to PBTE in general and to the PBTE materials.

The Resource Person Guide to Using Performance-Based Teacher Education Materials can help prospective resource persons to guide and assist preservice and inservice teachers and occupational trainers in the development of professional teaching competencies through use of the PBTE modules. It also includes lists of all the module competencies, as well as a listing of the supplementary resources and the addresses where they can be obtained.

The Guide to the Implementation of Performance-Based Teacher Education is designed to help those who will administer the PBTE program. It contains answers to implementation questions, possible solutions to problems, and alternative courses of action.
Learning Experience I

OVERVIEW

Enabling Objective

After completing this module, learners demonstrate knowledge of the concepts and principles of instructional design.

You will be facing the instructional task: Teaching Instruction, pp. 3-26.

You may want to read the following supplementary reference: Mayer and Vernon, "Instructional Variables Influencing Learning."
Before you begin to develop courses, it is important to understand what instructional planning involves and why it is important to effective instruction. For information on instructional planning in general and the course development process, read the following information sheet.

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**PLANNING INSTRUCTION**

When you undertake any major project, you undoubtedly take time to plan. You may not always commit your plan to paper, but you certainly take time to consider what it will take to get the results you want. If you were planning to add a patio to your home, for example, you would first try to determine the materials needed, the construction methods available, the time involved, and the cost.

Instruction should be no different. You will create a high-quality product only by investing time and thought in its planning.

**Instruction and the Process of Planning**

What do we really mean when we speak of instruction? There are many definitions, but in a broad sense instruction involves managing (orchestrating) both learning resources and activities in order to help people learn.

Learning resources include time, material resources (e.g., instructional materials, facilities, equipment), and human resources (teachers, students, and others involved in the instructional process). Learning activities can include both what you do (e.g., lecture, demonstrate, use audiovisuals) and what students do (e.g., read, listen, solve problems, complete lab work) to facilitate learning.

It is your job to arrange and manage resources and activities in order to create conditions that maximize the chances that people will learn. It is important to keep in mind that it is impossible to “teach” individuals in the sense of making them learn. Learning occurs internally, in the mind of the learner; you can’t make learning happen, and you can’t see it happen. What you can do is to create a set of conditions favorable to learning and then observe the results of learning when students demonstrate skill.

Instructional planning begins with a needs analysis—the identification of the difference between current conditions or outcomes and desired conditions or outcomes. For example, in the process of conducting a needs assessment, a business or industry may uncover a problem. The problem may be due to any number of causes, one of which could be a need for employee training. Thus, a program could be developed in response to that need: lack of adequate training.

Similarly, through community surveys, follow-up studies, and other techniques, secondary and two-year postsecondary institutions identify education/training needs in the local area. Educational institutions must collect and analyze information about two types of needs: need for trained workers to fill available (or projected) jobs and need for occupational training to meet the interests of prospective students. Without attention to both these needs, an institution is in danger of developing a program in which prospective students have no interest—or worse, of training interested students for jobs that don’t exist locally or, perhaps, don’t exist at all.

Planning in response to a need continues through all levels, from planning a total program to planning a single lesson. For example, students may enter a welding class with only a knowledge of the basic principles of arc welding, whereas it is desirable that they also have skill in using arc welding equipment. The gap between their current level of knowledge and skill and the desired level would form the basis for an instructional plan. The plan would specify the steps students must take to reach the instructional objective—in this case, skill in using arc welding equipment.

The creation of a plan of instruction can be divided into two major phases: curriculum development and instructional development. Curriculum development is often defined as determining what is to be taught, while instructional development is concerned with how it is to be taught. (The distinction between curriculum development and instructional development is not always clear, however, since the two processes are essentially interrelated and often occur more or less simultaneously.)

As you create any plan, you must keep in mind the total learning environment—all those factors or elements that will affect the structure of the plan and the instructional (learning) outcomes. For example:

- Instructional goals and objectives
- Student needs, characteristics, and learning style
- Instructor needs, characteristics, and teaching style
- Physical environment
A good way to think about the learning environment is to envision it as a system—a collection of elements that together create certain effects or outcomes, with each of the elements affecting the other elements and, in turn, affecting the system as a whole. The things that you do, the kinds of learning materials you use, the types of learning activities you provide for your students, together with all the other elements, affect how well the learning objectives are met.

For the sake of simplicity, let us assume in this module that you have been hired to teach a particular program (or course) and that the need for that program has already been identified and verified. What, then, are your planning responsibilities? First, you need to consider the type of program structure you will be working in.

Program Structures

Schools, colleges, businesses, and industries may structure their education/training programs according to several models—or variations of those models. However, the two models most commonly used today seem to be the conventional model and the competency-based model.

The basic structures of most programs using the conventional model are very similar. Sample 1 provides a graphic view of a typical two-year program structure. The program consists of courses, some required and others optional. Courses, generally of quarter or semester length, are composed of units, each of which focuses upon a limited section of subject matter. Units are broken down into daily lesson plans, which describe exactly what is to take place in the classroom, lab, or shop, including specific learning activities. In a conventional structure, instruction is often group-based, group-paced, and teacher-directed.

Another structure used by an increasing number of institutions is the competency-based model. In an occupational program using this model, content is based upon the specific competencies (skills) required for a particular occupation, job, or role. As defined by such organizations as The National Center and the American Association of Colleges for Teacher Education, programs should include the following essential elements to be considered fully competency-based:

- Competencies to be achieved are rigorously identified, verified, and made public in advance of instruction.
- The instructional program provides for the individual development and evaluation of each of the competencies specified.
- Assessment of competency takes the student's knowledge and attitudes into account but requires actual performance of the competency as the primary source of evidence.
- Criteria to be used in assessing achievement and the conditions under which achievement will be assessed are explicitly stated and made public in advance.
- Students progress through the instructional program at their own best rate, by demonstrating the attainment of specified competencies.

In this model, instruction is (ideally) individualized to the maximum extent possible. The learners assume more responsibility for their own learning, while the instructor functions as a resource person: advising, facilitating learning, and evaluating performance and progress. Sample 2 provides a graphic view of a competency-based program structure.

Program Content

Where does content come from? Who decides what is to be taught in a particular program or course? How is it determined? Where do you fit into the instructional planning process?

Depending on your particular instructional situation, detailed content may be specified for you, or you may be completely responsible for content development, or your situation might fall somewhere between these two extremes. If you are provided with the content, it may be provided in varying degrees of detail.

What is important in occupational programs is that the content of a program, course, unit, or lesson is ultimately based on the skills, knowledge, and attitudes necessary for success in a particular occupation, job, or role, whether it be welder, practical nurse, secretary, ag mechanic, or chef. But how is content determined?

Content is sometimes determined by curriculum experts, usually in committee. Membership on such committees may be drawn from the institutions themselves, state departments of education, professional associations, and so on. Although expert opinion is widely used to determine content, the mechanisms for deciding content may vary greatly.

Sometimes, traditional methods are used to identify essential occupational skills, knowledge, and attitudes to obtain group consensus. For example, in many occupational programs, content is determined by conducting an occupational analysis—a systematic analysis, in very specific terms, of exactly what a worker does on a particular job.
An occupational analysis usually begins with a single occupation (or job) within an occupational cluster (a group of related jobs or occupations). The occupation is analyzed to determine the major duties, the related tasks involved in those duties, and the steps or elements that constitute each task. Sample 3 uses an example from the textile industry to illustrate the levels of an occupational analysis.

Other techniques for collecting task data involve using handbooks and manuals. There are many guides to occupational analysis that have been developed by state departments of education, regional and national consortiums, the U.S. military, the federal government, and other agencies. Some potential sources of occupational analyses for curriculum/course planning are listed in sample 4.

Some institutions use mailed surveys, interviews, and occupational advisory committees (sometimes called craft committees) to obtain data for use in curriculum planning. Many institutions also use existing curricular materials developed by other organizations, as well as textbooks and technical/periodical literature (e.g., trade journals and professional association journals).

In the last few years, some program developers have been using the DACUM (Developing a Curriculum) method, which involves a group of 8-12 expert workers from the occupation in a structured, two- to three-day brainstorming process, conducted by a trained facilitator. Use of the DACUM process has a number of advantages. Through its use, tasks/competencies can be identified quickly. The process is cost-effective. And a feeling of local ownership is produced.

As an instructor, you may find a task or competency list already available to you when you are assigned to teach a particular program or course. If not, one of your first tasks will be to prepare such a list using one of the previous approaches. The approach you select should be the one that best fits your needs and the resources—time, budget, staff—to which you have access.
COMPETENCY-BASED PROGRAM STRUCTURE

SAMPLE 2

OCCUPATIONAL ANALYSIS

SAMPLE 3

15
SOURCES OF CURRICULUM/COURSE PLANNING MATERIALS

The Ohio State University, Department of Vocational Education, Instructional Materials program, has published materials on the use of instructional models, such as the Instructional Model (IM) and the Instructional Laboratory Model (ILM). These models provide a framework for designing, implementing, and evaluating instructional programs.

1. Instructional Model (IM): The IM is a systematic approach to planning and delivering instruction. It consists of six stages: analysis, design, development, implementation, administration, and evaluation. The IM helps educators to design instruction that is appropriate, effective, and efficient.

2. Instructional Laboratory Model (ILM): The ILM is a model for designing and implementing instructional laboratories. It consists of five stages: planning, design, development, implementation, and evaluation. The ILM helps educators to design laboratories that are effective, efficient, and relevant to the needs of students.

3. Vocational Technical Education Curriculum Committee (VTECC): The VTECC is a group of educators and professionals who work together to develop curriculum and instructional materials. The committee has developed over 100 curriculum units that cover various vocational fields.

4. Information and Learning Technologies Foundation (ILTF): The ILTF is a non-profit organization that supports the use of information and learning technologies in education. The foundation has developed a range of instructional materials that include software, hardware, and instructional design strategies.

5. National Council of Vocational Education (NCVE): The NCVE is a professional organization that represents vocational educators and students. The council has developed a range of instructional materials that include lesson plans, instructional materials, and resources for teaching vocational skills.

6. Ohio State University, Department of Vocational Education, Instructional Materials (OSU-VEM): The OSU-VEM is a program that provides instructional materials and resources for teaching vocational skills. The program has developed over 100 instructional units that cover various vocational fields.
Planning a Course

As noted earlier, the creation of an overall plan of instruction involves two processes—curriculum development and instructional development. How these two processes are carried out will depend on whether the instructional program is structured according to the conventional or competency-based model. A description of how these two models affect your approach to curriculum development and instructional development follows.

The Conventional Approach

Instructional planning using the conventional approach involves planning the overall program or course and developing units of instruction, lesson plans, and learning activities. Usually you will be provided with at least a course outline. If not, you will have to determine what you are going to teach from the potentially wide range of topics within an occupational area—and within a prescribed time frame. Where do you begin?

There are nine major steps in developing curriculum and instruction according to the conventional model, as illustrated in sample 5. Let’s review those steps briefly.

Search for relevant information. The search for information might involve locating and examining existing courses and/or course descriptions related to the course being planned. You might also interview subject matter experts within your own or other institutions and examine trade journals, textbooks, and other documents. Once again, sample 4, p. 14, lists some sources of curriculum/course planning materials.

Review information. Once you have collected and assembled all the information you can, given the time limitations, the second step is to review each resource and to select those that could help you in your course-development task. In other words, you need to identify those resources that cover the appropriate subject matter, that are up-to-date, that are research-based, or that meet whatever other criteria you establish for the review process.

Prepare list of topics or tasks. Next, you need to prepare a list of the occupational topics or tasks to be included in the course, based upon the resources you have gathered and your own experience. This list should include the topics or tasks within the subject matter area that are most essential or critical to the occupation.

Develop course objectives. Your next step involves developing objectives for the course. These objectives should indicate the purposes of the course in terms of what the students can expect to have learned or be able to do upon course completion. An objective for an automotive course might be stated as follows:

The student will maintain and repair automotive fuel systems in accordance with the specifications contained in the manufacturer’s service manuals.

Sequence objectives. After the course objectives have been developed for each task or topic, you need to sequence them. There are no hard-and-fast rules for sequencing objectives. The critical issue is that they be in some sort of logical order—one that makes instructional sense.

For example, the objectives might logically be sequenced in the order in which the tasks are performed within the occupation. Or certain objectives may need to be achieved first, before others can be attempted, they build on one another. Or students may need to proceed from the general to the specific—or vice versa—in order to learn most easily or best.

Or you might feel that your students need to experience early successes. It would therefore make sense to sequence some easily achieved objectives first, and then more difficult objectives. In another situation, you might decide that your students need to achieve an objective or two that will arouse their interest early in the course, so you would sequence them accordingly. Whatever the logic, the sequence should make sense in terms of the whole instructional system.
Prepare course outline. Once you have developed one or more objectives for each topic or task and have sequenced them, you should then prepare a course outline presenting the sequenced objectives for the course. In your outline, objectives should be written in a uniform manner, contain standards of performance, and be sequenced in a logical fashion. A well-prepared outline serves as a valuable guide for the instructional development phase.

Develop course of study. Developing the course of study is the first step in the instructional development phase. Your job here is to lay out the major pieces of the entire course in a clear and logical fashion. Sample 6 provides an example of one format for developing a course of study.

The course description usually indicates the basic goals and purposes of the course, stated in rather broad terms. The course objectives contained in the course of study should indicate in general what the student will be expected to do after completing the course (rather than the more explicit objectives you will be developing later, as the basis of lesson plans). The course content section should contain a list of the major instructional areas or groups of topics/tasks to be covered in the course.

Since time is one of the major variables you must deal with, you should also plan how you will allocate instructional time. This involves estimating, as accurately as you can, the amount of time that should (or must) be devoted to each task/topic or unit of instruction.

Finally, you need to identify the materials required to support the course. These materials include the major references (books, periodicals, etc.), audiovisual aids, equipment, tools, supplies, and facilities that will be needed to conduct the course.

Develop units of instruction. Units are subsections of course content. The course of study contains all of the tasks/topics to be addressed in the course; a unit covers one or several of these tasks/topics. Thus, all the topics/tasks listed in the course of study are logically distributed into units. The units may vary in the length of time required and the degree of complexity for students, depending on the content.

The document that describes the contents of a unit is called a unit plan. Sample 7 shows a typical unit plan format. You will note that it is similar in structure to the course format in sample 6, except that it describes, in more detail, only one portion of the course. An overview of the unit is provided, major instructional areas are broken down into topics or tasks, performance objectives are stated, student learning activities and their required resources are listed, and student evaluation procedures are described.

Develop lesson plans. Lesson plans provide more detailed instructional guidelines addressing specific sections of content drawn from the units. That is, they describe the specific learning experiences you will provide for your students during a single class session—experiences dealing with a single task/topic or a few related tasks/topics. The second learning experience in this module provides more in-depth information on how to develop lesson plans.
COURSE FORMAT

I. Course Title

II. Course Description

III. Course Content

Major Instructional Areas (Tasks or Topics)
1.
2.
3.
4.
5.

IV. Course Objectives

1.
2.
3.
4.

V. Time Allocations

Instructional Areas/Units | Time Allocations by Class Hours
---|---
1.
2.
3.

* This section may also have the time allocations broken down year by year.
The Competency-Based Approach

If you are going to teach in a competency-based education (CBE) program, your instructional planning should be quite different from that required for a more conventional type of program. Instead of developing a course of study, unit plans, and lesson plans to structure what you will be doing, you will be helping students develop individual learning plans to provide a structure for what students will be doing.

One of the advantages of a CBE system is its flexibility—its ability to allow a program to be tailor-made to meet a learner’s unique goals and needs. Given a list of the tasks/competencies that make up an occupation, you and each individual learner can come to an agreement on the learning goals and the competencies to be developed by that individual. An excellent mechanism for doing this is to use a learning plan such as the one shown in sample 8.

In developing a learning plan with you, the student learns to take responsibility for and make decisions about his/her own learning. And while permitting some flexibility, you must guide the learner so that the tasks selected are those that can be attained with the learner’s current skill level and experience.

If learners are to pursue individual learning plans at their own pace, conventional daily lesson plans are of little use. Instead, instructional materials (e.g., learning packages, either learning guides or modules) must be available to provide routine instruction.

The instructional materials must include the components usually included in the instructor’s plan: objectives, information, learning and evaluation activities. In this way, students can work somewhat independently and at their own pace, and you can serve as a resource person—advising, facilitating, and evaluating as needed.

Depending on your situation, you may be provided with such materials, or you may be involved in their development. But remember, since these materials take the place of the lesson plans used by the instructor in conventional programs, they must be sufficiently clear, complete, and detailed to structure learners’ progress through the program. By referring to the learning plan and the instructional materials, the learner should know exactly what skills are to be mastered, what products are to be produced, what time lines should guide his/her progress, and what criteria (performance/product standards) must be met.

The competency-based approach is also illustrated in sample 5, p. 17, so that you may compare this approach to the conventional approach. The steps in developing curriculum and instruction using the competency-based approach are as follows.

Locate or conduct an occupational analysis. As the term competency-based suggests, such an approach demands that the competencies (tasks) required for successful performance in the occupation form the basis for curriculum and instructional development. Thus, the first step is to identify those competencies by locating or conducting an occupational analysis.

An occupational analysis may be conducted locally or acquired from a number of different sources. Many of these sources (see sample 4, p. 14) provide information useful for both the conventional approach and the competency-based approach.

Verify the resulting tasks/competencies. Verifying an occupational analysis confirms that the items listed do, in fact, describe local occupational requirements. Verification involves asking those who should know—expert workers and their supervisors—whether the tasks listed are those actually performed on the job, whether the tasks listed represent the important tasks performed, and whether the task list includes all the important tasks performed.

The “asking” can be relatively simple or quite complex. Respondents can simply be asked to review the items on the analysis and verify that they are actually performed on the job. A more rigorous survey—with random sampling of respondents, tested instruments (questionnaires), and/or interviews—may also be used. The strategy used will depend upon the scope of the analysis, institutional requirements, and available resources.

Analyze verified competencies. Each competency (task) statement next needs to be broken down into the knowledge, skills, and attitudes required in performing that competency. This step provides teachers with more detailed information for developing instructional materials. By determining the knowledge, skill, and attitude components of each competency, teachers and/or curriculum developers can identify the amount of time and effort required to master each competency and can better provide appropriate instruction.
Translate competencies into objectives. After verification, each competency statement next needs to be translated into a complete performance objective, which clearly states the following:

- Performance required (activity to be performed)
- Conditions under which it will be performed
- Criteria to be met

The competency statement describes the overall performance required (e.g., Type reports and manuscripts). Thus, you could translate that statement into a performance objective by adding conditions and criteria as follows: In office settings, given drafts of reports and manuscripts to be typed, [the learner will] type reports and manuscripts in correct forms to produce mailable copies according to established office procedures.

Sequence performance objectives. The purpose of this step is to produce a list of objectives arranged in a sequence supported by instructional logic (i.e., sequenced to promote effective student learning). For example, commonly some objectives must be met before others can be met, however, there are other logical ways of sequencing objectives (e.g., from the simple to the complex or based on the normal job sequence). Regardless of the logic used, the sequence must make sense in terms of student learning.
Develop curriculum plan. The curriculum plan is the product derived from the task analysis and the sequencing of all the objectives. It contains the performance objectives, developed on the basis of the competency/task statements, and the enablers for each objective.

Enablers (also called performance enablers, enabling objectives, or elaborations) are designed to enable, or help, students to achieve a particular occupational skill. They lead students in a logical sequence to achievement of the final performance objective. The enablers grow out of the process of task analysis—the process in which each competency is analyzed to determine its elements, what steps and procedures are involved in performing the competency, what background knowledge needs to be acquired, and what attitudes are involved. The enablers cover those elements.

With this curriculum plan, you are ready to begin the instructional development phase, deciding upon the instructional techniques to be used and the instructional materials needed.

Develop occupational competency profile. The development of an occupational competency profile provides a document with many potential uses. Produced in chart form, the profile graphically displays the competencies (tasks) in a program, usually organized into duties (or duty areas or general areas of competence—GACs). A portion of one profile is shown in sample 9.

By referring to such a profile, students, administrators, and interested others (e.g., employers) can comprehend the total program and its contents more readily. They can quickly see that the program is designed to train students to perform those skills workers must actually be able to perform on the job.

The profile can also be used in helping students develop their learning plans; they can identify those skills they already possess and those they wish to develop. And the profile can be used to document student progress; as a student masters each competency, the date of mastery or rating received can be recorded on the profile.

Cluster related competencies. Sometimes, the competency statements are clustered into related, logical groupings to (1) reduce the total number of instructional packages (learning guides or modules) needed, (2) reduce the total number of competencies to a more manageable number, (3) reduce the overlap of content coverage that is sometimes necessary when many task statements are dealt with individually, or (4) help show the logical relationships between various tasks.

Develop or select individualized learning packages. The last task of the instructional developer is to use the information gathered during the preceding steps to either develop or locate and select learning packages. These learning aids give students specific, detailed instructions to guide them through the learning process.

Each learning package (module or learning guide) provides students with learning materials—related to a specific competency or cluster of competencies—when they need them, and as long as they need them. The result is that each student has as much time as is necessary (within reason) to achieve each competency.

No matter which model is being used by your particular institution or firm, it is important that as you plan for instruction, you remain aware of what other instructors are doing. Your activities and the activities of other instructors must be coordinated and integrated in terms of the whole instructional program. By following a structured approach to planning and by documenting your plans, communication between and among instructional staff is greatly facilitated.
Optional Activity

For more information about planning instructional programs, you may wish to read the following supplementary reference. Mager and Beach, *Developing Vocational Instruction*. Mager and Beach offer a succinct, well-written guide to the development of vocational-technical courses.
To gain additional skill in planning instruction, you may wish to refer to selected PBTE modules in the following categories:

- **Category A**—Program Planning, Development, and Evaluation—includes modules on conducting community surveys, follow-up studies, and occupational analyses; and on developing program goals and objectives and courses of study
- **Category B**—Instructional Planning—includes modules on developing student performance objectives, unit plans, and lesson plans
- **Category K**—Implementing Competency-Based Education—includes modules on organizing the content and your class for CBE, which focuses on the planning process

You may wish to view the 20-minute videotape, "Performance-Based Training in Atlantic Canada." Note particularly how instructional content is derived. As the DACUM process is described, note (1) the makeup of the DACUM committee, (2) desirable characteristics of committee members, (3) the role of the instructor, (4) steps in the analysis process, and (5) the final chart of skills that results.

For more in-depth information on the DACUM process, you may wish to review the following supplementary reference: Norton, *DACUM Coordinator's and Facilitator's Handbook*. This handbook describes DACUM in general and then explains each step in the process, including:

- Planning the workshop
- Selecting committee members
- Conducting the orientation
- Facilitating group interaction
- Constructing the initial DACUM chart
- Verifying the tasks
- Producing the final DACUM chart

Numerous appendices are provided in the handbook, with examples of completed DACUM charts and other support materials.

Please note, however, that simply reading the document will not prepare you adequately to conduct the DACUM workshop on your own. Hands-on training, under the supervision of an expert facilitator, is required before you should attempt to serve in this role.

You may wish to arrange through your resource person to meet with a teacher or curriculum specialist, experienced in developing courses, to review and discuss the procedures he or she has followed in developing them. You might wish to address such questions as the following:

- How does he or she go about identifying topics?
- How does he or she develop objectives?
- What methods are used to allocate instructional time?
- What format is used, and why?
- What resources are used, and how were they identified?
The following items check your comprehension of the material in the information sheet, Planning Instruction, pp. 9-24.

SELF-CHECK

I. Case Study:

The following case study describes how Mary Mettle, a new part-time faculty member at a technical school, planned her course using a conventional approach. Read the case study and critique in writing the procedures she used to develop the course.

Mary Mettle had entered the retail business after completing graduate work in marketing and, after stints as department manager, store manager, and buyer, had moved to a management position at New Styles Stores. Her career was going well. Even better, she had just learned that she had been accepted to teach an introductory retailing course to a class of adults at a local technical school.

Mary had always harbored a desire to teach but had thought she would never have an opportunity to do so. Now she would have a chance to see what life was like on the other side of the podium. She would be able to share the knowledge and experience she had gained during her retailing career and perhaps make the road a little easier for others.

A month before the semester was to begin, Mary met with the head of her department and received her course syllabus and textbook. The department head appeared somewhat harried during their meeting. However, she promised that she would meet with Mary to discuss course planning during the week prior to the upcoming semester.

Mary left the department head's office feeling disconcerted. She had never taught anybody anything. She glanced at the syllabus. It appeared to be a general course outline, listing major topic areas. It was true that the department head had expressed confidence in Mary's abilities, but Mary felt less than confident—unsure of where to begin.

The syllabus appeared to be of limited value. Therefore, Mary decided to go to the library and examine other introductory texts to try to determine what the various authors deemed important. After she had examined a number of texts, she reviewed and outlined her assigned course text and, with the syllabus as a guide, started to assemble a comprehensive topic list.

As Mary was working on the topic list, it struck her that it might be beneficial for her students to become aware of the most important current issues in the retail industry. Another trip to the library to search the periodical section—coupled with information gleaned from the retailing trade journals she personally subscribed to—provided her with other topics. She felt a little more competent and confident.

As Mary completed her topic list, she considered her own retail experiences, which ranged from cashier to department manager to store manager. She tried to identify experiences that related to the course topics. She jotted down the personal experiences that she felt would be most applicable to each topic so that she could refer to them during her presentations.

During both her educational and work experiences, she had encountered objectives on more than a few occasions. She decided that it would indeed be logical to develop some for her course—after all, how can you get somewhere if you don't know where you are going?

Her last step was to develop lesson plans for each week. The lesson plans consisted of outlines and short notes for each class session, based on the topics that she felt she could reasonably deal with. She had thought about ordering some films from the college media center, but she decided that she would instead fit films in somewhere during the semester, if time permitted.

As Mary closed her notebook, she felt reasonably ready for the coming semester and her interview with the department head the following morning.
II. Essay:

Each of the three items below requires a short essay-type response. Please respond fully, but briefly, and make sure you respond to all parts of each item.

1. During a discussion with an instructor from another organization, the topic of competency-based versus conventional instruction comes up. The other instructor doesn't understand how the competencies required for a particular job or occupation are determined in competency-based programs. How would you explain the process?

2. You are a teacher at an institution that employs the competency-based approach. One of your students asks you where the performance objectives and enablers listed in her learning package come from. She also asks why they are important. How would you respond to her questions?
3. You have heard a number of other instructors comment that a competency-based system is inflexible—that each student must learn exactly what every other student learns, and at the same pace. If you were asked about this concern, how would you answer?
Compare your written responses to the self-check items with the model answers given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same major points.

MODEL ANSWERS

I. Case Study:

Mary did a commendable job in preparing for the retailing course, given her limited experience and the amount of course planning assistance she received (or didn't receive). And given her level of enthusiasm, it's quite likely that she will be successful in helping people learn.

However, Mary did leave a few stones unturned. She should have checked other sources (e.g., other curriculum guides and course descriptions related to the course being planned). By examining these resources, she could have obtained a much better understanding of the skills, knowledge, and attitudes required for various retail occupations—and been better equipped to help her students acquire them. In an occupational program, course content should be based upon the skills needed to perform successfully on the job.

Mary might also have gotten some very valuable information from other instructors, as well as employees actually working in the retail industry. Tips on course planning, the characteristics of the student body, and appropriate course content would have made her job a little easier.

When she actually began to lay out the course, she quite correctly prepared a topic list and objectives. She should have gone a step further, however, and also sequenced the objectives in some logical order—an order that made instructional sense. Since she was scheduled to teach an introductory course, it might have been logical to sequence objectives in such a way that students would first develop an understanding of the retail industry in relation to the overall economy, before moving to more specific features of the industry.

Mary should have prepared a course outline after she had sequenced the objectives she developed. Without a good outline and logically sequenced objectives, the task of developing the course of study, unit plans, and lesson plans was made more difficult for her.

The same holds true for unit plans. Without good unit plans, it is more difficult to develop lesson plans that truly reflect the objectives of the course. Hence, the likelihood that students will meet the course objectives is diminished.

Let us hope that in her next meeting with the department head, Mary gets the assistance she needs to firm up her plans. As valuable as her own personal experience is, she needs to verify, through other sources, exactly which skills her students need in order to succeed on the job. With solid plans, she then will have a good basis for estimating how much instructional time will be required to meet each objective and for identifying a wide range of appropriate instructional materials to facilitate student learning.

II. Essay:

1. You should have pointed out that determination of the competencies required for a particular job or occupation is based upon the results of an occupational analysis. You should also have explained that sometimes the analysis is conducted by the institution developing the course or program and sometimes it is acquired from other sources, such as V-TECS, state curriculum laboratories, or regional curriculum coordination centers (CCCs).

It would have been worthwhile to have also pointed out that the analysis results are usually verified in some way by the institution—either by simply asking expert workers to review the items or by using some more elaborate, scientific approach involving questionnaires or interviews.

2. Your answer should have focused on the fact that the performance objectives are developed on the basis of the actual competencies required for success in a particular job or occupation. Further, each objective includes (1) the performance described by the competency statement, (2) a
description of the conditions under which the performance will occur, and (3) a description of the criteria (standards) for the performance.

You should also have pointed out that the enablers are those objectives that enable, or help, a student to meet the final performance objective. The objectives are, thus, obviously important; they help guide the student in achieving the competencies required for successful job performance.

3. You should have answered that a competency-based system is anything but inflexible. In fact, one of its major advantages is its flexibility. Programs can be tailored to fit the unique goals and needs of each student. By means of learning packages, students can work independently, at their own pace, with the instructor serving as a resource person—advising, facilitating, evaluating, and providing specific assistance when students need it.

Level of Performance: Your written responses to the self-check items should have covered the same major points as the model answers. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Planning Instruction, pp. 9–24, or check with your resource person if necessary.
Learning Experience II

OVERVIEW

Enabling Objective

After completing the required reading, critique a given lesson plan.

You will be reading the following chapter: Lesson Planning, pp. 48-49.

You may want to review other sample lesson plans or lesson plans specific to your instructional area.

You will be utilizing the Lesson Plan, p. 43.
Good instructors in conventional programs consistently use lesson plans. For information about the benefits of lesson plans, their structure, and their development, read the following information sheet.

LESSON PLANNING

High-quality instruction does not just happen. No instructor can step in front of a class and present an effective lesson without preparation—without a guide. In order to maximize the chances that students will learn, you must have a written guide—a lesson plan.

A lesson plan is a simple, clear, and flexible written aid for conducting a class. It is based upon the needs, interests, and abilities of students and structured according to the needs, goals, and teaching style of the instructor.

The development of a lesson plan provides an occasion for you to think through what will or might occur in the class during a particular lesson. In planning, you must consider student characteristics, the physical environment, how best to deliver content, what learning activities are most suitable for particular content, and what learning materials are most appropriate. By planning the lesson, you can also anticipate student responses and learning problems and be ready to deal with them as they arise.

Once developed, the lesson plan provides you with a “road map” for reaching instructional goals. A well-written lesson plan can also increase your confidence as an instructor. Just knowing that an aid or guide is available to refer to can give you a certain sense of security.

The lesson plan provides a means for keeping on track; at the same time, if used skillfully, it permits you to be flexible. It is much easier to deviate from and return to a plan if you need to spend more time on a particular topic or point, than it is to deviate from an unplanned lecture and then try to return to the point where you left off. Remember, a lesson plan is meant to be a guide, not something that is carved in stone. It is meant to serve as an aid to help you conduct a class.

How, then, should an ideal lesson plan be structured? There are many different lesson plan formats, but all contain certain essential elements:

- Preliminary information
- Lesson approach
- Lesson development
- Lesson summary

Preliminary Information

Preliminary (or identifying) information is generally included at the top of lesson plan pages and includes such data as the subject being taught, the date the plan will be used and/or was developed, the unit and lesson titles, the period or hour the class meets, and the instructor’s name. How much of this information you include will depend upon your needs.

Lesson Approach

The lesson approach includes two components: the lesson objectives and the lesson introduction.

Lesson objectives. The lesson objectives are drawn from the unit objectives. Each objective should include the performance (observable behavior) that is expected, the conditions under which the performance will be accomplished, and the criteria that will be used to judge the performance. For example:

Given the necessary equipment (condition), the student will produce the five basic bead welds (performance), so that they are comparable to the sample welds provided by the instructor (criterion).

Objectives should always be stated in terms of the learner, for at the completion of instruction, you want to be able to assess what the learner can do.
For example, the performance component of an objective in a welding course would not be to teach students the names of basic shop tools. Rather, it would be, The students will be able to name the basic shop tools.

If at all possible, you should encourage students to take an active role in helping to select lesson objectives. Discussions with students about their needs, simple questionnaires, and similar strategies can both provide you with valuable information and increase student motivation. Questions such as the following can be used to involve students in this process:

- Have you studied this topic/subject before?
- What do you hope to gain by studying this topic/subject?
- What specific questions would you like to see answered?
- What interests you most about this topic/subject?
- What do you think would be most valuable to learn about this topic/subject?

It is important to remember that adult learners have a very real psychological need to direct or help direct their own learning. They also need to feel that you value their experience and input. Try to put yourself in their shoes.

Lesson introduction. The lesson introduction is an important part of each lesson plan. A well-constructed introduction gives learners a sense of where the lesson fits into past and present learning efforts, what the lesson objectives are, and consequently, what is expected of them as learners.

The lesson introduction is particularly important in the early stages of a course, especially the first few class sessions. Remember, some adult learners may not have participated in formal learning experiences for a long time, often years. Anxiety levels are likely to be high. Some may be concerned that they will not fit in with younger or more educated learners. They may worry that they are too old to learn or that the course will be too difficult for them.

You can use the introduction to let learners know what is going to occur and to create an informal and relaxed atmosphere, thus helping to reduce their anxiety. Relate your own experiences and encourage learner participation as early as possible. Use techniques designed to allow the participants to get to know each other. These are excellent ways of creating the right kind of atmosphere during the introduction.

The introduction should be designed to increase the motivation and excitement levels of the learners. If they are motivated and excited about the lesson, they are much more likely to learn. Stories, anecdotes, demonstrations, and provocative questions are some of the methods you can use to create excitement and interest. Of course, one of the best ways to generate these kinds of emotions is for you to be excited about what you’re doing.

Lesson Development

The lesson development section (sometimes termed the lesson body or lesson content portion of the lesson plan) is the part of the plan that outlines how the learning objectives will be reached. In other words, what instructional methods or techniques and related student activities will be employed.

For example, you might choose a demonstration as the best method for introducing students to a particular manipulative skill. The student activities would be their observation and later replication of the demonstration. Thus, instructional methods/techniques and learning activities/experiences go hand in hand.

There are many different techniques and activities you can use; sample 10 lists some of them. A great deal of information about these techniques/activities is readily available. A trip to your institution’s library or staff development department, local college or university library, or state library will yield a wealth of information. Related modules in the Professional Teacher Education Modules Series also contain detailed information about a wide variety of instructional techniques and student activities.

Choosing the appropriate techniques/activities involves a number of variables or factors, as shown in sample 11. Let’s consider how each of these affects your choice of instructional method.
<table>
<thead>
<tr>
<th>Instructional Techniques/Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drill/Practice</td>
</tr>
<tr>
<td>Oral Recitation</td>
</tr>
</tbody>
</table>
Instructional goals and objectives. The goals and objectives of the lesson are the primary basis for choosing particular methods over others. After all, helping students to reach learning objectives is the primary reason for instruction.

The nature of your enablers—knowledge (cognitive), skills (psychomotor), or attitudes (affective)—helps determine what kinds of teaching method you will use. Obviously, the method you choose should be appropriate for the type of objective you are trying to help learners reach.

For example, if you are helping learners to become better problem solvers (a cognitive skill), it would not be wise to use lecture as the primary method. A technique such as guided discovery, in which learners discover, for themselves, the underlying principles and relationships pertinent to a problem, would be much more effective in this case.

Student characteristics. The age, experience, abilities, needs, interests, and other characteristics of the learners must also be considered. For example, techniques that would be appropriate for a class made up of adults of relatively the same age, education, and experience level might not be appropriate for a very diverse group—a group with widely varying ages and past educational or occupational experiences.

Instructor characteristics. Your own characteristics also enter into the equation. For instance, if you did not have any skill or experience in developing written simulations, you would be ill-advised to attempt using that kind of instructional method until you gain that skill.

Content. The content of the lesson is determined by the objectives. The manner in which you may order or format the content in the lesson plan can vary. Some instructors prefer to use an outline form; others write out the bulk of the lesson content in paragraph form. In part, your choices can be based on personal preferences; but in some cases, the instructional technique determines how you plan the content. For example, if you chose to use the demonstration technique, you would need to list, in proper sequence, the steps that must be performed, as well as any special safety rules involved in the activity.

Availability of resources. Time, equipment, facilities, and materials must also be considered in your planning. You can't show a film if you don't have access to a film projector. You must also make decisions about the suitability of the available resources in terms of the content and the learners.

Lesson Summary

The lesson summary portion of your plan needs to describe how you will summarize the lesson and evaluate the attainment of objectives. You need to plan how you're going to tie the lesson together, draw conclusions or generalizations, and perhaps repeat major points or concepts. You also need to plan for evaluation by listing key questions and/or developing appropriate evaluation tools (short oral or written quizzes, performance checklists, and so on). The summary should also connect the lesson just completed to both previous and future lessons and to the learning activities achieved.

As stated earlier, there are many different formats for lesson plans. Some institutions require use of a designated form but most allow the instructor to make their own choices. Samples 12-14 provide examples of three different lesson plans, with the recommended format type being dependent upon the purpose of the lesson.
## MODEL LESSON PLAN: Manipulative Skill

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparation</strong></td>
<td>Select appropriate manipulative materials.</td>
</tr>
<tr>
<td><strong>Instruction</strong></td>
<td>Demonstrate the use of the materials.</td>
</tr>
<tr>
<td><strong>Practice</strong></td>
<td>Students practice using the materials under supervision.</td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
<td>Evaluate students' ability to use the materials accurately.</td>
</tr>
</tbody>
</table>

*Emphasize accuracy.*

---

**Unit: 5**

**Page: 1-2**
### III. APPLICATION (practice by student under close supervision):

Practice using gauge on scrap stock until correct technique is established.

Each student will present a marked piece of scrap stock for check by instructor.

### IV. TEST performance of skill to acceptable standards:

Students will make a dovetail joint and tenon joint to required dimensions.

Instructor will check for precision and accuracy.

**Suggested Reading for Student:**

Hammond: Wood Technology, pp. 61–63
For more information about lesson planning and other elements of instructional design, you may wish to read the following supplementary reference: Gagne and Briggs, *Principles of Instructional Design*. This book provides a comprehensive treatment of instructional design conducted by means of a systems approach—an approach that considers, during the design process, all the variables or factors that can affect learning outcomes.

To gain additional skill in lesson planning, you may wish to refer to one or more of the following PBTE modules:

- Module B-4: *Develop a Lesson Plan*
- Module C-10: *Introduce a Lesson*
- Module C-11: *Summarize a Lesson*

If you wish to review sample lesson plans or formats specific to your area, you may check with one or more of the following sources: other instructors, your resource person, a library, or a curriculum resource center. Try to locate a variety of lesson formats that you can compare with one another.
Below is a lesson plan that is partially incorrect and/or incomplete. Review the plan and then critique it in writing. It is suggested that you critique each section in turn, indicating strengths as well as weaknesses.

LESSON PLAN

UNIT: Welding Process

LESSON TOPIC: Types of welds and welded joints

OBJECTIVE(S): To familiarize learners with the basic types of welds and welded joints.

CLASS: Week II-1

TECHNIQUE: Lecture

INTRODUCTION: Discuss importance of proper surface preparation before welding.

DEVELOPMENT: CONTENT OUTLINE

<table>
<thead>
<tr>
<th>General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Types of Joints</td>
</tr>
<tr>
<td>1. Butt joint</td>
</tr>
<tr>
<td>2. Corner joint</td>
</tr>
<tr>
<td>3. Edge joint</td>
</tr>
<tr>
<td>4. Lap joint</td>
</tr>
<tr>
<td>5. Tee joint</td>
</tr>
<tr>
<td>B. Types of Welds</td>
</tr>
<tr>
<td>1. Groove weld</td>
</tr>
<tr>
<td>2. Surface weld</td>
</tr>
<tr>
<td>3. Plug weld</td>
</tr>
<tr>
<td>4. Slot weld</td>
</tr>
<tr>
<td>5. Fillet weld</td>
</tr>
<tr>
<td>6. Flash weld</td>
</tr>
<tr>
<td>7. Seam weld</td>
</tr>
<tr>
<td>8. Spot weld</td>
</tr>
<tr>
<td>9. Upset weld</td>
</tr>
</tbody>
</table>

KEY POINTS

- Mention edge preparation techniques for each joint type.
- Refer to diagram in Manual R-17
- Point out relationship of weld types and seam/joint/surface preparation.

SUMMARY:

1. Review types of welds and joints using diagram flashcards.
2. Coordinate short question-and-answer session.

ASSIGNMENT: Students will diagram welds and joints.

EVALUATION: Instructor will judge correctness of diagrams

RESOURCES:

1. Manual R-17
2. Weld/joint flashcards
Compare your written critique of the lesson plan with the model critique given below. Your response need not exactly duplicate the model response; however, you should have covered the same major points.

MODEL CRITIQUE

Overall, this instructor is on the right track. This is a good first draft; however, more work is needed before the plan meets all the criteria for a good lesson plan. Let's look at its strengths and weaknesses.

First, while the identifying information is adequate, the objective has serious flaws. There is no statement of student performance—what the learner will be able to do after the instruction. The instructor also failed to state conditions or criteria. It might also have been better to state at least two major objectives—one related to identifying welds and joints, and one related to surface preparation.

The instructional delivery technique (lecture) is acceptable, but other choices might have been much more suitable—for example, lecture-demonstration or the use of other media aids (e.g., slides, film, computer graphics).

It seems logical to lead into the topic of welds by discussing the importance of surface preparation. But more is needed; this introduction does not do all it should. The introduction does not tell learners where this particular lesson fits, there is no tie-in to past and present learning efforts. In addition, the instructor included no plans for motivating the learners and interesting them in the lesson.

The content outline is satisfactory for a lecture on types of welds. It includes both the topics to be covered (which could have been described in more detail) and key points that the instructor should reinforce or focus upon. As mentioned previously, however, such a lecture may not be ideal for learning. The content outline helps point out the weaknesses of that approach; a more detailed outline would have made the potential weaknesses more obvious.

A total of 14 joint and weld types are to be covered. Presenting that much new information by speaking at students is unlikely to help them absorb the new learning. It is more likely to wash over them. By dealing with less new information and by using an approach requiring more student involvement, the instructor would increase the chances that students would learn.

The assignment or learning activity—developing weld and joint diagrams—has instructional value. However, not all of the key points noted in the outline (edge and surface preparation) would be addressed by this kind of learning activity.

The lesson summary is adequate. However, it might have been better to include the use of other techniques, such as asking students to identify actual samples of various welds and joints. Furthermore, it would have been helpful to list key questions that could be used to structure the question-and-answer session.

The evaluation plan is weak. On what basis is the instructor judging the correctness of the diagrams? This weakness is directly connected to the poorly stated lesson objective. Without clearly identified student performance, conditions, or criteria, an instructor may be unclear about what to evaluate and how to evaluate achievement.

The objectives in this case should have required students to recognize, identify, and distinguish between various welds and joints, and to demonstrate knowledge of which types of surface preparation techniques are most appropriate for each type of weld. The appropriate means of evaluation and the criteria students would have to meet to demonstrate achievement of the objectives would then have been clear.

Finally, the instructor did note the resources required but should have considered other supplementary resources, such as actual samples of welds and joints.
Level of Performance: Your written critique of the lesson plan should have covered the same major points as the model critique. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Lesson Planning, pp. 33–42, or check with your resource person if necessary.
Planning instruction for adults is different in some ways from planning instruction for younger students. To find out more about adult instructional needs, read the following information sheet.

PLANNING INSTRUCTION FOR ADULT LEARNERS

Adults are not tall children. This statement might seem a bit silly at first glance, but many instructors act as though this were exactly the case when they set out to design instruction. There is an ever-present tendency for instructors to teach as they were taught—to use the same instructional strategies and techniques that they experienced as students. Although this is certainly understandable, it is not very effective, particularly if most of their educational experiences occurred before they became independent adults.

As you plan instruction for adult learners, it is critical to avoid this trap and to be sure you consider the learning process in terms of adult needs and characteristics. In addition, you must also take into account all the other variables or elements that make up an instructional system.

The elements of any instructional system (e.g., the materials, learning activities, instructional methods or techniques, and learner characteristics) constitute variables that you must manage in order to help adult learners meet their objectives. To complicate matters, these elements are different for every learning situation. No two learning experiences are ever exactly alike. You must keep this fact in mind as you design instruction.

If you consider these variables and plan your instruction accordingly, you will increase the chances that your students will achieve the desired learning outcomes. Among the many variables you must deal with, some (e.g., choice of instructional materials, media, and methods) are under your direct control, at least to some degree. Others, your personal characteristics, student characteristics, and the structure of your institution or organization) tend to be imposed or pre-existing.

The structure of your institution is especially important, since it is a variable that directly affects many of the others. Organizational norms, rules, procedures, and resources often influence the way in which you can approach the management of other variables.

On the one hand, your organizational environment might be highly structured. In other words, there may be a very well defined, conventional curriculum, with all of the conventional components (courses of study, unit plans, lesson plans, learning activities) already developed and in place. In that case, your ability to modify the prescribed curriculum might be very limited.

On the other hand, you may be employed by an institution that provides very little structure—perhaps a textbook and little else. In that case, you may have broad responsibility for developing the course you are to teach.

The same variations in the amount of structure provided would also hold true if you are employed by an organization that uses a competency-based approach. Well-developed learning packages might exist in abundance—or you might have to develop these materials yourself.

In reality, the situation in most institutions falls somewhere between these two extremes. But for the sake of discussion, let's look at the extremes.

Highly Structured Environment

If your particular situation leans toward the highly structured extreme, your choices in planning instruction will be somewhat limited. Nonetheless, there are numerous steps you can take to make your instruction suitable for adult learners. The key is to actively think about and plan for learning activities that are (1) appropriate for adult's, (2) likely to enhance adult learning, and (3) suitable for a structured learning environment.

You can, for example, take care to clarify expectations—both yours and theirs—at the beginning of the program.

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1. To gain additional skill in the use of the strategies described briefly in this information sheet, you may wish to refer to Module N-5, Manage the Adult Instructional Process.
Learners need clarification about such instructional matters as grading, testing, assignments, and classroom activities, as well as your expectations concerning their performance. You can help clarify these expectations by (1) providing students with a course outline or course syllabus that clearly defines these issues and (2) using that document as a basis for discussion.

Bear in mind that some adult learners may be reluctant to ask you about your expectations. If you merely hand out a course outline and ask if there are any questions, there may not be many. A better strategy would be to ask individual students about specific concerns (e.g., does John think the grading system is fair?).

Letting learners know your personal expectations helps them learn about you as an individual. This can, in turn, help create an open, interactive atmosphere. Adult learners need to know that you, too, are human, with concerns and problems similar to theirs. Of course, there is a fine line between letting students know you are human and letting your personal problems and views become the focus of instruction.

You need clarification about what the students expect to get from the program. Adult learners will have expectations based upon past learning experiences. Without knowledge of what your students want and need, it will be difficult for you to modify your instruction to meet those needs.

The only way that you can find out what students want is by asking them. The asking can take many direct forms. You can develop an informal survey. You might use formal assessment instruments if your institution can provide them and help with scoring and interpretation. Or, you might use large-group discussion to uncover needs and views. You could also break the class up into small groups to discuss these issues—with a spokesperson assigned to explain the views of the group.

Data related to students' wants and needs can also be obtained indirectly. If your institution has a formal intake system with an assessment component, you can obtain data about the preferences, abilities, and knowledge that individual students possess.

You also need to make it a point to monitor the physical environment and to modify it when you can. Older adults, especially, may have vision or hearing difficulties that you can remedy by changing seating arrangements and lighting. If furniture is movable, you can also avoid grouping adults in rows, which can inhibit interaction. People are less likely to talk with people who are sitting directly behind or in front of them.

Another way to create a suitable environment is to use icebreakers—activities designed to generate interaction—at the start of a course. Most icebreakers are brief and can be easily added to an existing plan. An example of a simple icebreaker is to ask each student in the class to make a short comment about their favorite hobby or leisure-time activity.

A little library work will produce many resources on the subject of icebreakers. Look for books or other materials that deal with conducting workshops or seminars, selecting classroom techniques, or delivering instruction. Your librarian should be glad to help.

To help adult learners integrate current learning with past learning, it is helpful to provide variety. You can also make students also need a need for instructional variety. However, adults have a larger and more complicated store of information into which new information must be integrated. The more varied the strategies for learning, the better their chances of making the connections.

A little extra planning and effort in this area will pay special dividends for adults. You can easily create opportunities to present information in different ways, explain concepts in different terms, use varied examples, and otherwise vary your instructional strategies. Take special care to be aware of the diversity of experiences, viewpoints, and value systems that adults have, and be sure to tailor your explanations in terms of their perspectives, not just your own.
Varying the instructional strategies you use can also work wonders in terms of group attention and interest. Break up lectures by introducing other types of learning activities periodically (e.g., a short question-and-answer session after 20 minutes or so of lecture). If an activity requires sitting, break it up with those allowing movement (e.g., lab work or a break).

You should also tailor the feedback you provide to allow for adult sensibilities. Adults have a lot at risk in the classroom, and self-esteem can be easily damaged when corrective feedback is poorly handled. Think about how you feel when you are being critically observed by your peers, and let this awareness guide your classroom approach.

Highly Unstructured Environment

If your situation falls at the other extreme, your opportunities for developing instruction suited to adult learners are limited only by your personal resources, creativity, and the availability of institutional resources. Of course, with this flexibility comes added responsibility. It is up to you to create learning experiences that will result in adult learning.

A central tenet of adult education is the desirability of giving adults some degree of responsibility for planning, carrying out, and evaluating their own learning experiences. If you have a great deal of flexibility, one of your major planning goals should be to create learning experiences that provide for some learner self-direction. Rather than planning teacher-directed learning experiences, you should be planning experiences that are teacher-guided—with your primary role being that of a facilitator of learning.

To facilitate the learning of others, you must create a climate that is conducive to learning. Ideally it should be physically comfortable, pleasing to the eye, and structured in such a way that it encourages interaction among learners.

In a psychological sense, a good learning climate will make learners feel that you care about and respect them. Learners should feel that they’re not there to compete with other learners, but rather to learn—in a responsible, collaborative way. There should be a sense of partnership—both with you and with their classmates.

The good learning facilitator also takes steps to involve students in planning learning activities. Planning should be a joint effort. Together you should determine what it is students wish to learn and how best to learn it. Together you should set objectives and choose the learning experiences most appropriate for reaching those learning objectives. The degree of student involvement possible will depend upon the capabilities of the particular learners, as well as the other variables that affect the instructional process.

Suppose, for example, that you were teaching an introductory course, scheduled at the beginning of a program. The learners participating in this course would probably have limited knowledge in terms of course content. This would, of course, restrict their ability to develop, or help develop, course objectives.

If, on the other hand, your course was one whose content was familiar to students (e.g., if students had completed prerequisite or related courses or had actual work experience), they would have a much clearer idea of what their needs and interests actually were. You could, therefore, more easily involve them in planning instruction.

Another important task in planning adult instruction is to individualize instruction as much as possible. In other words, you need to use methods and materials that will take into account individual differences among learners. Although people can learn by many means, individuals generally learn best by using a few specific techniques or strategies.

An important aspect of individualizing instruction for adults is to provide options—a variety of instructional techniques and activities from which to choose. These options should be suitable for the adult learners in your particular program.

Your choice of options will depend in part upon how well you know and understand the group you are working with, how capable of self-direction they are, and how individuals within the group learn best. It will depend upon the resources that are available to you. And it will depend on how aware you are of the variety of instructional methods available to you.

If you plan the type of instruction described here—characterized by self-direction, individualization, provision of options, and student involvement—it is important that learners clearly understand the learning process: what their role is, what your role is, and exactly how learning experiences will occur. Remember, many adult learners have become accustomed to, and thus expect, a good deal of structure—procedures, rules, and guidelines. You must take great care—at least initially—to fully explain the learning approach you are using and why.
For more information about planning instruction for adult learners, you may wish to read one or more of the following supplementary references:

- Knowles, *The Modern Practice of Adult Education: From Andragogy to Pedagogy*—This text offers a very complete treatment of adult education, the development of comprehensive programs, and the design and management of learning activities.
- Klevins, ed., *Materials and Methods in Adult and Continuing Education*—This collection of articles deals with many different aspects of adult instruction.
- Davis, *Planning, Conducting, and Evaluating Workshops: A Practitioner's Guide to Adult Education*—This document is primarily oriented toward short-term programs. Nonetheless, it is an excellent source, with application to any adult program. Among other things, Davis provides no-nonsense advice on working with the adult learner, setting the learning climate, and planning.

The following case study describes how Mary Mettle, a new part-time faculty member at a technical school, planned instruction for adult learners. Read the case study and critique in writing the steps she took to plan a course for adult learners.

**CASE STUDY**

Mary Mettle learned many things when she taught her first course, Introduction to Retailing. She learned, mostly by trial and error, what kinds of learning experiences those adults preferred, what kinds of expectations they had, what values they held, and how they reacted to her instructional activities. She gained additional knowledge when she attended a workshop on planning instruction for adults, sponsored by her department.

She was excited and challenged by the fact that adult learners were different in so many ways from younger learners. She determined that if she was offered another course, she would take care to add even more activities suitable for adults.

Fortune smiled. The department head had received glowing reports about Mary's instruction from a number of Mary's students. She consequently offered Mary another course for the coming semester.

Mary was pleased with the department head's confidence in her. She was also pleased that many of the students who had completed her introductory course would also be taking her new course, Intermediate Retailing.

Planning the new retailing course was a little different from planning the introductory course because the department had recently restructured the course, which saved Mary a good deal of work. The curriculum committee had already developed detailed learning objectives and sequenced them. They had even produced lesson plan outlines. As Mary set out to turn those outlines into full-blown lesson plans, she recalled the experiences she had had and the knowledge she had acquired at the workshop.
In her lesson plan for the first class session, she made sure to include information about course requirements and her expectations for the class. She realized that although many of the students would know generally what to expect, some new students would not. And even the returning students might feel just a little anxiety.

Her first two lesson plans also included ice-breakers so that the new students could become acquainted with the returning students. She felt that these activities would also help the returning students who hadn't gotten to know some of their classmates in the introductory course. And, she hoped that these activities would help create a warm, friendly climate.

Finally, she obtained a book on methods and techniques for teaching adults from the staff development library, studied it, and identified a variety of different instructional techniques she could use. Her choices of techniques were based upon both the types of learning that were being undertaken and the characteristics of adult learners.

In preparing her final plans, Mary was careful to consider both the characteristics of adult learners in general and the characteristics of the learners that would be taking her class.
Compare your written critique of the instructor’s performance with the model critique given below. Your response need not exactly duplicate the model response; however, you should have covered the same major points.

MODEL CRITIQUE

Mary was on the right track when she began to think of her learners as different from younger learners—and took positive steps to plan for their learning with these differences in mind.

Realizing that every adult comes to any learning experience with a different set of expectations helped to put her on the right track in her planning. She could, however, also have planned to include information about herself—not intimate details about her life, but experiences to which her students could relate, experiences that would help to minimize her directive role. This would have helped to create an atmosphere of equality and sharing.

In focusing her attention on instructional activities and techniques, Mary may have neglected to consider the physical environment. One feature of the environment that is often overlooked is room arrangement. Mary should have considered this feature since it can have a pronounced effect on classroom interaction and on the learning process.

The fact that she took the time to gain more knowledge about instructional methods speaks well for her future success as an instructor. The greater a teacher’s repertoire of instructional methods, the more likely it is that his or her instruction will be effective.

Since the course objectives and lesson plan outlines were provided to Mary, opportunities for student involvement were lessened—but there were indeed some opportunities. She could have involved her students in planning learning activities and might have been able to modify the course by emphasizing or de-emphasizing certain objectives. Some of the students in this course would have been able to make more informed choices, since they had the knowledge gained in the introductory retailing course as a foundation.

Level of Performance: Your written critique of the instructor’s performance should have covered the same major points as the model critique. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Planning Instruction for Adult Learners, pp. 48–50, or check with your resource person if necessary.
Learning Experience IV

FINAL EXPERIENCE

Terminal Objective

When you have achieved your goal, arrange to have your resource person observe.

Feedback

The feedback component of the model is an evaluative stage, as the evaluation of instruction. Feedback is the process of determining the effectiveness of the instruction.

Scope

The scope component of the model is a description of the instruction to be learned. The scope component also includes the necessary equipment and materials.

*For a definition of "actual teaching situation," see the inside back cover
TEACHER PERFORMANCE ASSESSMENT FORM
Plan Instruction for Adults (N-4)

Directions: Indicate the level of the teacher’s accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

In ensuring that all plans were geared to adult learners, the instructor:
1. began the planning process with a needs analysis (current vs. desired conditions) .........................................................

2. considered adult needs and characteristics .................................

3. included plans for doing the following, as appropriate given the instructional variables:
   a. clarifying his/her expectations to the students ......................
   b. determining students’ expectations for the course ..............
   c. monitoring and modifying the physical environment ..........
   d. using icebreakers ........................................................
   e. providing for variety in instructional methods and activities ....
   f. tailoring explanations and feedback to the perspectives of adult learners ..............................................................
   g. providing for student self-direction ...................................
   h. individualizing instruction ..............................................
   i. involving students in planning instruction ..........................

If working (or planning to work) in an institution using a conventional approach to instruction, the instructor:
4. searched for and located relevant materials to use as a basis for determining course content .................................

5. reviewed the collected materials to determine their suitability .................................................................

6. prepared a list of essential tasks/topics to be included in the course .................................................................

7. prepared correctly stated course objectives ............................

8. sequenced the objectives according to accepted instructional logic .................................................................
9. prepared a course outline

10. developed an acceptably formatted course of study, which included:
   a. a course description (basic goals and purposes)
   b. course objectives
   c. course content (list of major instructional areas or tasks/topics)
   d. estimated instructional time allocations
   e. list of major materials needed to support the course

11. developed at least one unit plan covering, in more detail, one portion of the course

12. developed at least one lesson plan covering a specific section of unit content, which included:
   a. preliminary information
   b. lesson approach (objectives and introduction)
   c. lesson development
   d. lesson summary

If working (or planning to work) in an institution using a competency-based approach to instruction, the instructor:

13. located or conducted an occupational analysis describing the tasks/competencies actually required for successful performance on the job

14. verified the resulting tasks/competencies using actual workers

15. analyzed the verified competencies to determine the knowledge, skills, and attitudes required for each

16. translated the competencies into correctly stated performance objectives

17. sequenced the objectives according to accepted instructional logic

18. developed a curriculum plan, including performance objectives and enablers

19. developed an occupational competency profile

20. clustered related competencies, if appropriate

21. developed or selected learning packages, keyed to the competencies, to guide students through the learning process
**Level of Performance:** All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the instructor and resource person should meet to determine what additional activities the instructor needs to complete in order to reach competency in the weak area(s).
ABOUT USING THE NATIONAL CENTER’S PBTE MODULES

Organization
Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should enable you to achieve the terminal objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual teaching situation when you are an intern, a student teacher, an inservice teacher, or an occupational trainer.

Procedures
Modules are designed to allow you to individualize your teacher education program. You need to take only those modules covering skills that you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the introduction, (2) the objectives listed on p. 4, (3) the overviews preceding each learning experience, and (4) the final experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- That you do not have the competencies indicated and should complete the entire module
- That you are competent in one or more of the enabling objectives leading to the final learning experience and, thus, can omit those learning experiences
- That you are already competent in this area and are ready to complete the final learning experience in order to "test out"
- That the module is inappropriate to your needs at this time

When you are ready to complete the final learning experience and have access to an actual teaching situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange to (1) repeat the experience or (2) complete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped, (2) repeating activities, (3) reading supplementary resources or completing additional activities suggested by the resource person, (4) designing your own learning experience, or (5) completing some other activity suggested by you or your resource person.

Terminology
Actual Teaching Situation: A situation in which you are actually working with and responsible for teaching secondary or postsecondary vocational students or other occupational trainees. An intern, a student teacher, an inservice teacher, or other occupational trainer would be functioning in an actual teaching situation. If you do not have access to an actual teaching situation when you are taking the module, you can complete the module up to the final learning experience. You would then complete the final learning experience later (i.e., when you have access to an actual teaching situation).

Alternate Activity or Feedback: An item that may substitute for required items that, due to special circumstances, you are unable to complete.

Occupational Specialty: A specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity.

Optional Activity or Feedback: An item that is not required but that is designed to supplement and enrich the required items in a learning experience.

Resource Person: The person in charge of your educational program (e.g., the professor, instructor, administrator, instructional supervisor, cooperating/supervising/classroom teacher, or training supervisor who is guiding you in completing this module).

Student: The person who is receiving occupational instruction in a secondary, postsecondary, or other training program.

Vocational Service Area: A major vocational field: agricultural education, business and office education, marketing and distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher/Instructor: The person who is completing the module.

Levels of Performance for Final Assessment
N/A: The criterion was not met because it was not applicable to the situation.
None: No attempt was made to meet the criterion, although it was relevant.
Poor: The teacher is unable to perform this skill or has only very limited ability to perform it.
Fair: The teacher is unable to perform this skill in an acceptable manner but has some ability to perform it.
Good: The teacher is able to perform this skill in an effective manner.
Excellent: The teacher is able to perform this skill in a very effective manner.
### Titles of the National Center's Performance-Based Teacher Education Modules

#### Category A: Program Planning, Development, and Evaluation
- A-1: Prepare for a Community Survey
- A-2: Conduct a Community Survey
- A-3: Report the Findings of a Community Survey
- A-4: Organize an Occupation Advisory Committee
- A-5: Maintain an Occupational Advisory Committee
- A-6: Develop Program Goals and Objectives
- A-7: Conduct an Analysis
- A-8: Develop a Course of Study
- A-9: Develop Long-Range Program Plans
- A-10: Conduct a Student Follow-Up Study
- A-11: Evaluate Your Vocational Program

#### Category B: Instructional Planning
- B-1: Determine Needs and Abilities of Students
- B-2: Develop Student Performance Objectives
- B-3: Develop a Unit of Instruction
- B-4: Develop a Lesson Plan
- B-5: Select Student Instructional Materials
- B-6: Prepare Teacher-Made Instructional Materials

#### Category C: Instructional Execution
- C-1: Direct Field Trip
- C-2: Conduct Group Discussions, Panel Discussions, and Symposia
- C-3: Employ Brainstorming, Group Work, and Question Box Techniques
- C-4: Direct Students in Applying Trial and Error to Other Students
- C-5: Use Student Instructional Techniques
- C-6: Guide Student Study
- C-7: Direct Student Laboratory Experience
- C-8: Direct Students in Applying Problem-Solving Techniques
- C-9: Employ the Project Method
- C-10: Introduce a Lesson
- C-11: Direct Instruction
- C-12: Employ Oral Questioning Techniques
- C-13: Employ Reinforcement Techniques
- C-14: Provide Instruction for Student and More Capable Students
- C-15: Present an Illustrated Talk
- C-16: Demonstrate a Manipulative Skill
- C-17: Demonstrate a Concept or Principle
- C-18: Individualize Instruction
- C-19: Employ the Team Teaching Approach
- C-20: Use Subject Matter Experts to Present Information
- C-21: Prepare Bulletin Boards and Exhibits
- C-22: Present Information with Models, Real Objects, and Filmstrip Boards
- C-23: Present Information with Overhead and Opaque Materials
- C-24: Present Information with Filmstrips and Slides
- C-25: Present Information with Films
- C-26: Present Information with Audio Recordings
- C-27: Present Information with Transparencies and Videotaped Materials
- C-28: Use Programmed Instruction
- C-29: Present Information with the Chalkboard and Flip Chart

#### Category D: Instructional Evaluation
- D-1: Establish Student Performance Criteria
- D-2: Assess Student Performance Knowledge
- D-3: Assess Student Performance Attitudes
- D-4: Assess Student Performance Skills
- D-5: Determine Student Grades
- D-6: Evaluate Your Instructional Effectiveness

#### Category E: Instructional Management
- E-1: Project Instructional Resource Needs
- E-2: Manage Your Budgeting and Report Responsibilities
- E-3: Arrange for Improvement of Your Vocational Facilities
- E-4: Maintain a Filing System
- E-5: Provide for Student Safety
- E-6: Provide for the First Aid Needs of Students
- E-7: Assist Students in Developing Self-Discipline
- E-8: Organize the Vocational Laboratory
- E-9: Manage the Vocational Laboratory
- E-10: Combat Problems of Student Chemical Use

#### Category F: Guidance
- F-1: Gather Student Data Using Formal Data-Collection Techniques
- F-2: Gather Student Data Through Personal Contacts
- F-3: Use Conferences to Help Meet Student Needs
- F-4: Provide Information on Educational and Career Opportunities
- F-5: Assist Students in Applying for Employment or Further Education

#### Category G: School-Community Relations
- G-1: Develop a School-Community Relations Plan for Your Vocational Program
- G-2: Give Presentations to Promote Your Vocational Program
- G-3: Develop Brochures to Promote Your Vocational Program
- G-4: Prepare Displays to Promote Your Vocational Program
- G-5: Prepare News Releases and Announcements Concerning Your Vocational Program
- G-6: Arrange for Television and Radio Presentations
- G-7: Confer Concerning Your Vocational Program
- G-8: Conduct an Open House
- G-9: Work with State and Local Education Leaders
- G-10: Obtain Feedback about Your Vocational Program

#### Category H: Vocational Student Organization
- H-1: Develop a Personal Philosophy Concerning Vocational Student Organizations
- H-2: Establish a Vocational Student Organization
- H-3: Prepare Instructional Student Organization Members for Leadership Roles
- H-4: Assist Vocational Student Organization Members in Developing and Financing a Yearly Program of Activities
- H-5: Supervise Activities of the Vocational Student Organization
- H-6: Guide Participation in Vocational Student Organization Contests

#### Category I: Professional Role and Development
- I-1: Keep Up-To-Date Professional Knowledge
- I-2: Serve Your Teaching Profession
- I-3: Develop an Active Professional Philosophy of Education
- I-4: Serve the School and Community
- I-5: Obtain a Satisfactory Teaching Position
- I-6: Provide Laboratory Experiences for Prospective Teachers
- I-7: Plan the Teacher Training Experience
- I-8: Supervise Student Teachers

#### Category J: Coordination of Cooperative Education
- J-1: Establish Guidelines for Your Cooperative Program
- J-2: Manage the Attendance, Transfers, and Terminations of Cooperative Students
- J-3: Enroll Students in Your Cooperative Program
- J-4: Secure Training Facilities for Cooperative Students
- J-5: Place Cooperative Students on the Job
- J-6: Develop the Teaching Ability of On-the-Job Instructors
- J-7: Coordinate On-the-Job Instruction
- J-8: Evaluate Cooperative Students' On-the-Job Performance
- J-9: Prepare for Students' Related Training
- J-10: Supervise an Employer-Employee Appreciation Event

#### Category K: Implementing Competency-Based Education (CBE)
- K-1: Prepare Yourself for CBE
- K-2: Organize the Content for a CBE Program
- K-3: Organize Your Class and Lab to Implement CBE
- K-4: Provide Instructional Materials for CBE
- K-5: Manage the Daily Routines of Your CBE Program
- K-6: Guide Your Students Through the CBE Program

#### Category L: Serving Students with Special Exceptional Needs
- L-1: Prepare Yourself to Serve Exceptional Students
- L-2: Identify and Diagnose Exceptional Students
- L-3: Plan Instruction for Exceptional Students
- L-4: Provide Appropriate Instructional Materials for Exceptional Students
- L-5: Modify the Learning Environment for Exceptional Students
- L-6: Promote Peer Acceptance of Exceptional Students
- L-7: Use Instructional Techniques to Meet the Needs of Exceptional Students
- L-8: Improve Your Communication Skills
- L-9: Assist Vocational Student Organization Members in Developing Career Planning Skills
- L-10: Counsel Exceptional Students with Personal-Social Problems
- L-11: Assist Exceptional Students in Developing Career Planning Skills
- L-12: Prepare Exceptional Students for Employability
- L-13: Promote Your Vocational Program with Exceptional Students

#### Category M: Assisting Students in Improving Their Basic Skills
- M-1: Assist Students in Achieving Basic Math Skills
- M-2: Assist Students in Developing Technical Reading Skills
- M-3: Assist Students in Improving Their Writing Skills
- M-4: Assist Students in Improving Their Oral Communication Skills
- M-5: Assist Students in Improving Their Math Skills
- M-6: Assist Students in Improving Their Survival Skills

#### Category N: Teaching Adults
- N-1: Maintain the Adult Instructional Process
- N-2: Develop Individual Training Needs
- N-3: Assist Adults in Developing Self-Discipline
- N-4: Provide Appropriate Instructional Materials for Adults
- N-5: Manage the Adult Instructional Process
- N-6: Evaluate the Performance of Adults

### RELATED PUBLICATIONS
- Student Guide to Using Performance-Based Teacher Education Materials
- Resource Person Guide to Using Performance-Based Teacher Education Materials
- Guide to the Implementation of Performance-Based Teacher Education
- Performance-Based Teacher Education: The State of the Art, General Education and Vocational Education

For information regarding availability and prices of these materials contact—AAVIM, American Association for Vocational Instructional Materials, 120 Driftmier Engineering Center, University of Georgia, Athens, Georgia 30602, (404) 542-2586