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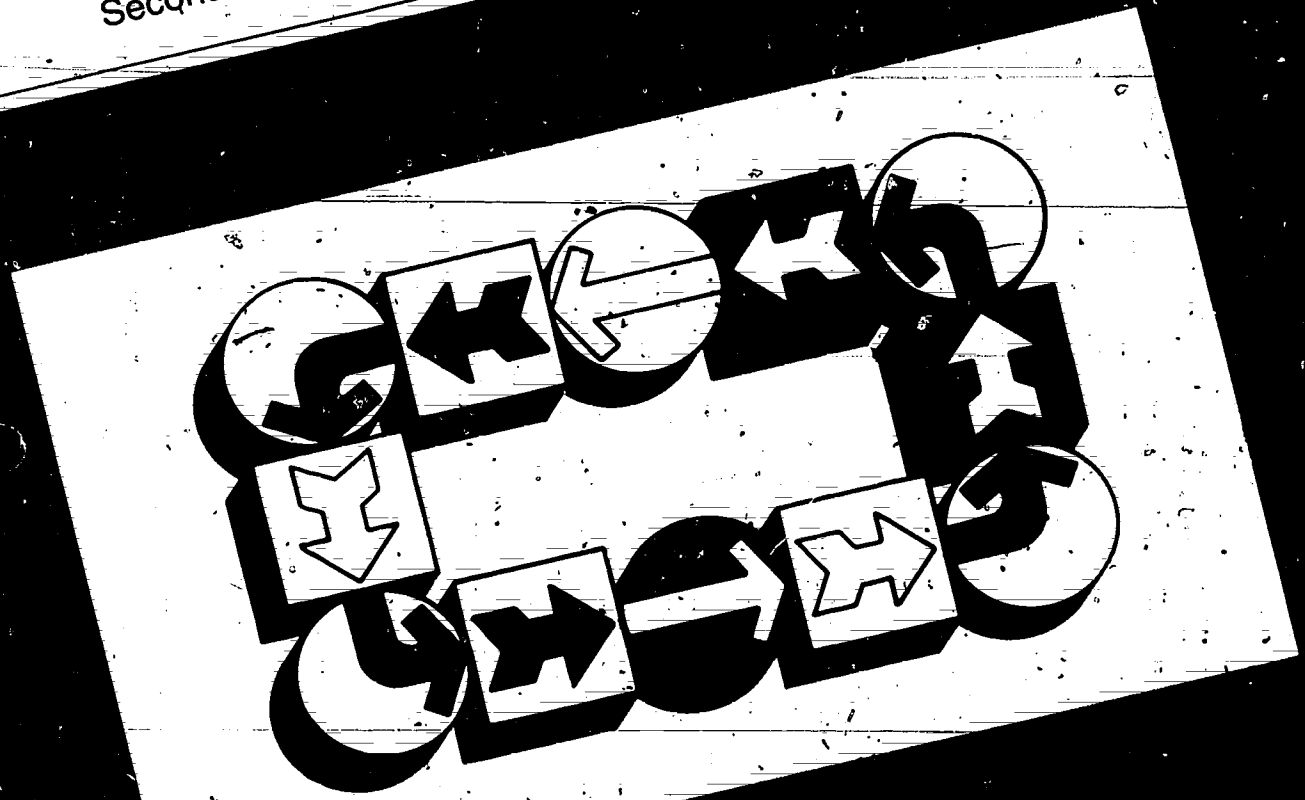
ABSTRACT

This learning module, one in a series of 127 performance-based teacher education learning packages focusing upon specific professional competencies of vocational teachers, deals with determining student grades. Addressed in the individual learning experiences are the following topics: understanding the functions of grades and traditional systems of grading (traditional marks, written evaluations, skill reports, pass-fail grading systems, self-evaluation, and grade contracts); converting grades; evaluating how teachers assigned grades in given case studies; and determining student grades in an actual teaching situation. Each learning experience contains some or all of the following: an objective, instructional text, one or more learning activities, and a feedback activity. (MN)

# Determine Student Grades

Second Edition



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The University of Georgia
120 Driftmier Engineering Center / Athens GA 30602

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# FOREWORD

This module is one of a series of 127 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of vocational teachers. The competencies upon which these modules are based were identified and verified through research as being important to successful vocational teaching at both the secondary and postsecondary levels of instruction. The modules are suitable for the preparation of teachers and other occupational trainers in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion-referenced assessment of the teacher's (instructor's, trainer'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 acting 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 teachers, as well as business-industry-labor trainers, to meet a wide variety of individual needs and interests. The materials are intended for use by universities and colleges, state departments of education, postsecondary institutions, local education agencies, and others responsible for the professional development of vocational teachers and other occupational trainers.

The PBTE curriculum packages in Categories A – J are products of a sustained research and development effort by the National Center's Program for Professional Development for Vocational Education. Many individuals, institutions, and agencies participated with the National Center and have made contributions to the systematic development, testing, revision, and refinement of these very significant training materials. Calvin J. Cotrell directed the vocational teacher competency research study upon which these modules are based and also directed the curriculum development effort from 1971 – 1972. Curtis R. Finch provided leadership for the program from 1972 – 1974. Over 40 teacher educators provided input in development of initial versions of the modules; over 2,000 teachers and 300 resource persons in 20 universities, colleges, and postsecondary institutions used the materials and provided feedback to the National Center for revisions and refinement.

Early versions of the materials were developed by the National Center in cooperation with the vocational teacher education faculties at Oregon State University and at the University of Missouri – Columbia. Preliminary testing of the materials was conducted at Oregon State University, Temple University, and the University of Missouri – Columbia.

Following preliminary testing, major revision of all materials was performed by National Center staff, with the assistance of numerous consultants and visiting scholars from throughout the country.

Advanced testing of the materials was carried out with assistance of the vocational teacher educators and students of Central Washington State College; Colorado State University; Ferris State College, Michigan; Florida State University; Holland College, P.E.I., Canada; Oklahoma State University; Rutgers University, New Jersey; State University College at Buffalo, New York; Temple University, Pennsylvania; University of Arizona; University of Michigan–Flint; University of Minnesota–Twin Cities; University of Nebraska–Lincoln; University of Northern Colorado; University of Pittsburgh, Pennsylvania; University of Tennessee; University of Vermont; and Utah State University.

The first published edition of the modules found widespread use nationwide and in many other countries of the world. User feedback from such extensive use, as well as the passage of time, called for the updating of the content, resources, and illustrations of the original materials. Furthermore, three new categories (K–M) have been added to the series, covering the areas of serving students with special/exceptional needs, improving students' basic and personal skills, and implementing competency-based education. This addition required the articulation of content among the original modules and those of the new categories.

Recognition is extended to the following individuals for their roles in the revision of the original materials: Lois G. Harrington, Catherine C. King-Fitch and Michael E. Wonacott, Program Associates, for revision of content and resources; Cheryl M. Lowry, Research Specialist, for illustration specifications; and Barbara Shea for art work. Special recognition is extended to George W. Smith Jr., Art Director at AAVIM, for supervision of the module production process.

Robert E. Taylor
Executive Director
The National Center for Research in Vocational Education

THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 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:

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- 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.

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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.

MODULE

# D-5

# Determine Student Grades

Second Edition

Module D-5 of Category D—Instructional Evaluation
PROFESSIONAL TEACHER EDUCATION MODULE SERIES


**The National Center for Research in Vocational Education**
The Ohio State University

**Key Program Staff:**
James B. Hamilton, Program Director
Robert E. Norton, Associate Program Director
Glen E. Fardig, Specialist
Lois G. Harrington, Program Assistant
Karen M. Quinn, Program Assistant





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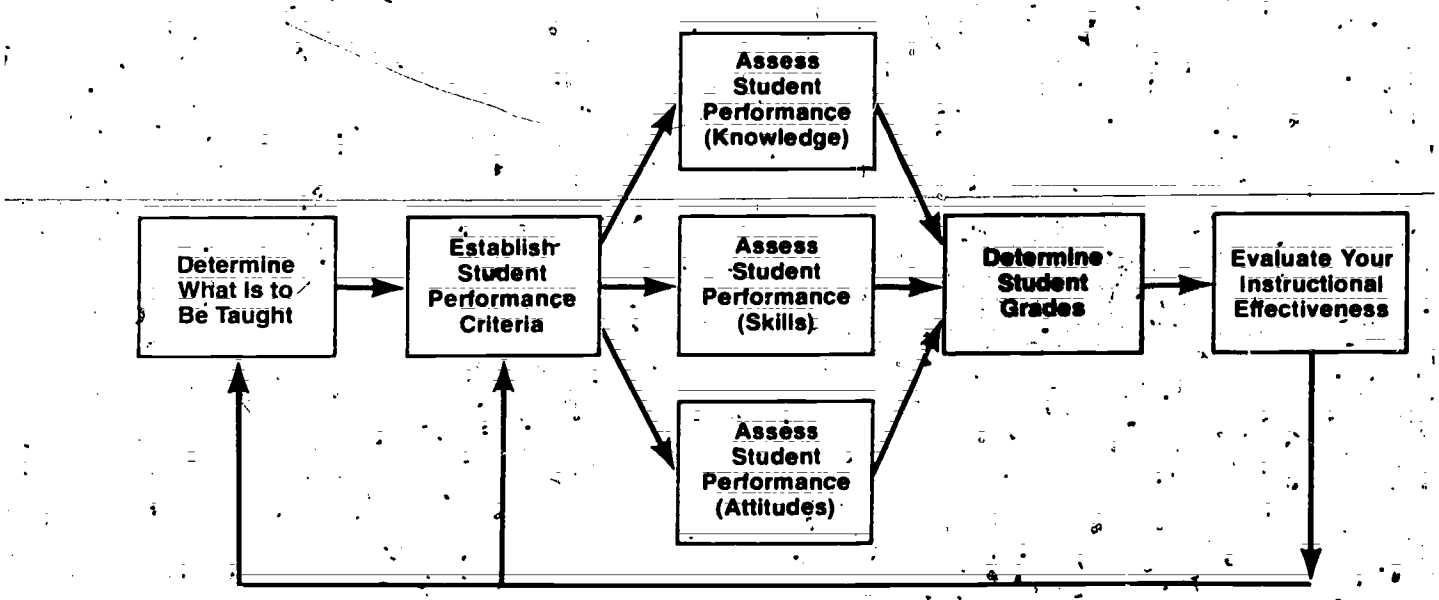



INSTRUCTIONAL EVALUATION PROCESS

# INTRODUCTION

Assigning grades to students is probably the least popular task that vocational teachers are required to perform. However, this act has tremendous impact upon students in terms of how they feel about themselves and how employers feel about them as potential employees.

Grading students is a crucial part of your job as an instructor. It is an activity that consumes a great deal of time and energy. While there are continued calls for abolishing grading, it is still very much with us and has important functions in education.

The evaluations and judgments of vocational teachers should do more than simply place students in convenient categories. They can provide a valid basis for important decisions by the students themselves and by others in our technological society.

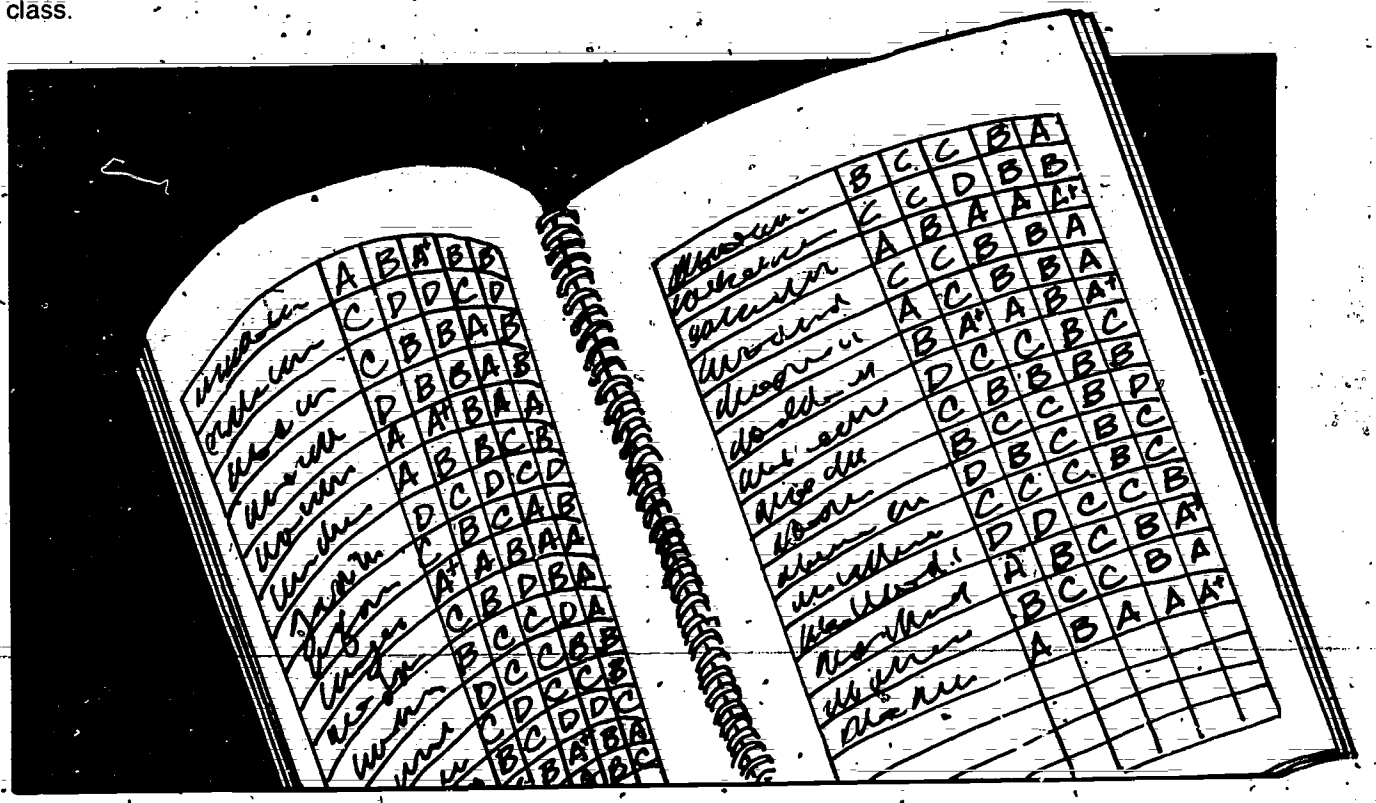
If you have a well-thought-out basis for grading, you will need to spend less time on grading and will have greater confidence in the grades you assign. Using educationally sound methods of evaluating students and accurate procedures for record keeping and computation will also help you to make grading a less time-consuming task. And it will help you ensure that the grades you do assign will accurately reflect students' abilities and efforts in your class.

Students will be more willing to work within the grading system if it is understandable and justifiable. They are more likely to accept your judgments if the process is an open one and is clearly fair and equitable.

In addition, valid grades can provide students with valuable information about their progress and achievement. Your competence in student grading can thus make an important contribution to the teaching/learning process.

This module is designed to help you to develop a basis for assigning grades to students and to devise efficient procedures for arriving at grades. It describes a variety of evaluative and computational techniques and will give you skill in employing these techniques in order to assess several aspects of students' occupational performance.

**NOTE:** The approach to grading presented in this module focuses on grading in conventional vocational-technical program structures. Determining grades in programs that are not based on time limits or grading periods (e.g., competency-based education, or CBE, programs) requires a somewhat different approach. This skill is covered in Module K-3, *Organize Your Class and Lab to Install CBE.*



# ABOUT THIS MODULE

## Objectives

**Terminal Objective:** In an actual teaching situation, determine student grades. Your performance will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 35–36 (*Learning Experience III*).

**Enabling Objectives:**

1. After completing the required reading, demonstrate knowledge of the functions of grades and the traditional systems of grading (*Learning Experience I*).
2. Given case studies describing how vocational teachers determined student grades, critique the performance of those teachers (*Learning Experience II*).

## Prerequisites

In order to complete this module, you must have competency in establishing student performance criteria. If you do not already have this competency, meet with your resource person to determine what method you will use to gain this skill. One option is to complete the information and practice activities in the following module:

- *Establish Student Performance Criteria*, Module D–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

*Reference:* Bellanca, James A. *Grading*. Washington, DC: National Education Association, 1977.

*A vocational teacher* in your occupational specialty experienced in determining student grades with whom you can consult.

### Learning Experience II

No outside resources

### Learning Experience III

Required

*An actual teaching situation* in which you can determine student grades.

*A resource person* to assess your competency in determining student grades.

## 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:

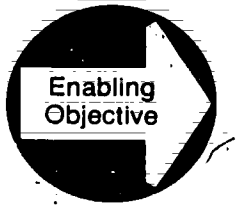
The *Student Guide to Using Performance-Based Teacher Education Materials* is designed to help orient preservice and inservice teachers and occupational trainers to PBTE in general and to the PBTE materials.

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



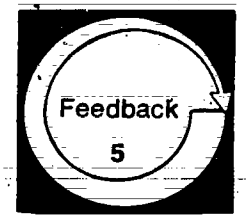

After completing the required reading, demonstrate knowledge of the functions of grades and the traditional systems of grading.


You will be reading the information sheet, Grading Students, pp. 6–20.


You may wish to read the following supplementary reference: Bellanca, *Grading*.


You may wish to consult with a teacher in your occupational specialty who is experienced in determining grades to discuss the methods he/she uses.


You will be demonstrating knowledge of the functions of grades and the traditional systems of grading by completing the Self-Check, pp. 21–24.




You will be evaluating your competency by comparing your completed Self-Check with the Model Answers, pp. 25–26.

Activity 1

In most teaching situations, grading is an established part of the teacher's responsibilities and one for which every teacher must be prepared. For information about why grades are used and the different systems traditionally used to determine student grades, read the following information sheet.

# GRADING STUDENTS

Perhaps you have always thought of grades as an inevitable part of instruction and have never considered why they are important or useful. As a student, you may have thought of grades only as something to anticipate or to dread, depending on your own innate abilities and the amount of studying you did for a particular course.

As a teacher or prospective teacher, you may view the giving of grades as just a time-consuming task that's part of your job. Grades do have a vital and active role in the instructional process, however, and they have many basic functions.

They are useful in making **placement** decisions and in administering an instructional program. Grades are used as a basis for promoting students, selecting students for special programs, placing them in advanced or remedial classes, and grouping students who have similar interests, among other things.

Grades have a **guidance** function. Students and counselors can refer to grade reports in deciding whether students are interested in or prepared for a given career. Grades are a good starting place for helping students evaluate their strengths and weaknesses and for planning an instructional program to develop students' abilities.

Grades can also provide **motivation** for students to learn. Some educators feel that grades should not be used for motivation. They feel that this encourages students to work for rewards rather than for knowledge. Others feel that an emphasis on grades creates so much anxiety and frustration that it impairs student learning. Grades can be overemphasized, but when properly used, they can serve as a positive motivating factor by keeping students aware of their progress and rewarding them for this progress.

Keeping students appraised of their **progress** on a regular basis is another function of grades. Students need to know when they are successful, because success has a positive influence on student growth. Likewise, students need to know when they are doing something wrong so they will not continue to practice incorrect procedures. Grades, if awarded on a continual basis, can help students keep aware of their achievement or lack of achievement.

Besides informing students of their achievement, grades communicate information to outside audiences. They tell parents, employers, and others whether a student is meeting the objectives of a program.

In essence, grades are meant to translate performance into symbols understood by the people to whom they are reported.

There are two categories of grades that are of concern to most vocational instructors: (1) grades that the teacher gives the student during a marking period and (2) grades that the teacher reports to outside audiences every six to nine weeks or at the end of a quarter or semester.

While the first category of grades may vary quite widely among teachers and among schools, the second category of grades is usually uniform within and among most institutions. There may be modifications, such as pluses and minuses or decimal intervals, but the basic system is usually an A, B, C, D, F or a numerically equivalent 4, 3, 2, 1, 0 system.

## Grading Systems

Grades represent judgments that a teacher makes about students' achievement of the performance objectives and specific criteria within a course. A grading system is a way of arriving at and reporting those judgments so that they are meaningful to others. You should not select a grading system arbitrarily, but should consult administrators, teachers, employers, and students to determine what type of grade reports they need.

Open and complete communication with **students** is crucial if grades are to provide feedback and motivate students to learn. Students need to know what performance objectives they are responsible for and how their performance will be converted into grades. They need to know when they will be graded and what influence each individual grade will have on their final grade. Students will consider their grades fair and reasonable only to the extent that they understand precisely how their grades are determined.

Input from **other instructors** in selecting a grading system is essential if sequenced or related vocational-technical courses are taught cooperatively by more than one instructor. If student grades are based on evaluations from different teachers, a uniform grading system should be adopted to avoid contradiction, confusion, and misunderstanding on the part of both students and teachers.

Your occupational **advisory committee** should also be consulted to get their recommendations concerning how students will be graded. Members of the committee are knowledgeable about the relative importance of performance criteria in terms of actual job skills. They may have suggestions about the types of grades that would be most helpful in informing employers of student achievement.

Moreover, your **school or college** has its own grading policies, and you need to be familiar with these when selecting the system you will use in your own class. Does your institution require letter grades? Do you have to give written final examinations? When are grade reporting periods? What types of student evaluations may be used to determine student grades?

Your grading system should be compatible and consistent with that of the institution so that the evaluations students receive during a grading period can be easily converted to final grades and recorded on the official report form used by the school or college.

However, the two systems need not be identical. In fact, you may want to use a combination of several grading systems, rather than a single system. For instance, you might want to use written comments or skill reports to supplement the institution's required grade reports. Although your system must conform to institutional policy, there are several types of grading systems that are compatible with the traditional A, B, C, D, F or 4, 3, 2, 1, 0 reporting system.

### Traditional Marks

Traditional marks are commonly used to grade tests, quizzes, and written work. They can also be used to grade laboratory work and out-of-school performance. However, it is crucial that you establish and follow clear criteria when assigning traditional grades.

The school or college will usually issue guidelines describing the type of work each grade represents. For example:

A = **Excellent work**—Student's work is of the highest quality in the class. All work is completed on time and in a superior fashion. The student does work beyond that which is required for the class.

B = **Very good work**—Student's work is generally completed on time. The work is very acceptable but is not as thorough or precise as *A*-level work. Most of the work assigned in the course is completed.

C = **Average work**—Some of the work is completed on time and some of the work is late. The quality of the completed work is acceptable but does not exceed *fair* standards of excellence. The student often does not complete all the work assigned.

D = **Poor work**—Work is not completed on schedule. The quality of work is barely acceptable. Much of the work is not completed.

F = **Failure**—Work is unacceptable and often not completed.

In some cases, **percentage ranges** may be used instead of letter grades to denote different standards of performance:

- 90% to 100% = Excellent work
- 80% to 89% = Very good work
- 70% to 79% = Average work
- 60% to 69% = Poor work
- Below 60% = Failure

If percentages are used instead of letter grades, they should correspond to any percentages established by the school or college.

Many times, teachers want to indicate progress to students more precisely than traditional letter grades permit, because considerable variation may exist within a grade or percentage category. This can be done by adding **pluses and minuses** to letter grades or by dividing up percentage categories. For example:

| | | |
|---|---|---|
| A+ | (98% to 100%) | = Exceptional work |
| A | (94% to 97%) | = Superior work |
| A– | (90% to 93%) | = Excellent work |
| B+ | (87% to 89%) | = Very good work |
| B | (84% to 86%) | = Good work |

And so on.

If letter grades need to be converted to percentages or vice versa, a uniform conversion scale should be used for this purpose, and students should be informed of how such conversions are made.

## Satisfactory—Unsatisfactory

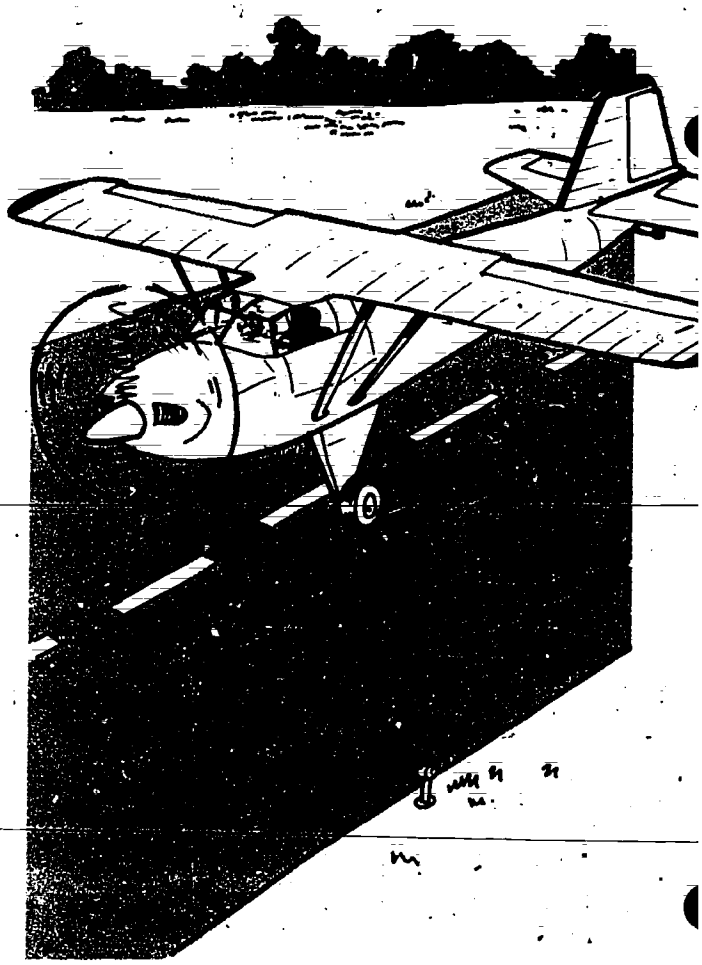
For individual pieces of work, both in the class and in the laboratory, you may need to determine simply whether the student's performance does or does not meet a certain minimal standard. In this case, you should explain to students, before they attempt a given task, what characteristics of performance distinguish satisfactory (S) from unsatisfactory (U) work.

For instance, a horticulture teacher might specify that satisfactory performance in asexual propagation consists of rooting 8 out of 10 cuttings within one month. Students who do not root 80 percent of their cuttings within one month would, therefore, receive an unsatisfactory rating.

S/U grades are most appropriate when it is not useful or possible to separate the quality of a performance into more than two distinct categories. Take, for example, the measuring of a roof rafter. It must be measured and cut properly to be used in a building. If it is cut too short, awarding it a grade of *B* or *C* will not make it acceptable. Or, consider evaluating students' attitudes toward customers. It is difficult enough to judge whether attitudes are satisfactory or unsatisfactory, let alone to divide them into five separate categories (A through F).

The S/U system can also be used with mastery or competency-based learning. Mastery learning refers to a situation in which students must continue to study and practice until they reach a minimum level of competency. Usually this level is comparable to what is acceptable in an actual job situation.

For certain skills, the level of mastery required for satisfactory performance is excellence rather than just minimal acceptability. For example, a student's performance in setting the timing of a car engine is satisfactory only if the timing is perfect, or within very close tolerances. A pilot must land the aircraft safely every time, not just 70 percent of the time; a crash is just not acceptable. In these cases, an *S* can be given only for excellence.



Unfortunately, some instructors use the S/U system to avoid grading students conscientiously. However, since it is often eventually necessary to convert S/U grades to traditional letter grades, criteria should be developed so that one set of grades can be converted to another. If only occasional work is graded S/U and if the criterion for receiving an *S* is mastery performance, then *S*s might be converted to *A*s, and *U*s to *F*s.

If S/U is used frequently, you will need to consider many factors when converting these grades to grades of A, B, C, D, and F. You may need to consider not only the fact that work was completed satisfactorily, but also the difficulty of the work and the quantity of work completed. You may also need to consider the relative importance of each task completed and the quality of the student's performance. Points could be assigned to such S/U work to simplify its being converted to traditional grades.

## Pass—Fail

Generally, pass/fail is a grading system used by the institution as a whole rather than by individual teachers. It is much like the S/U system, except that students may elect to receive either a P/F grade or a traditional letter grade in courses (e.g., physical education) that the school offers on a P/F basis. Criteria for the pass/fail performance may be the same as those for satisfactory/unsatisfactory performance, or *pass* may be given for all work of *D* and above, as in the traditional grading system.

## Written Evaluations

While few schools have a formal grade report that provides for extensive written comments, there is no reason that you cannot use written comments as a supplement to the normal grade report.

Many teachers contend that a primary purpose of grading should be the transmission of information. They feel that traditional grades transmit very little information because they do not explain the student's grade in terms of performance.

If you feel this way, using written comments will allow you to explain why the student received a particular grade and how the grade should be interpreted. If the grade report form does not include space for written comments, you can attach a separate written evaluation to the grade report.

Although written comments require a considerable amount of teacher time, they are very helpful and worthwhile to students and others interested in student achievement because they are specific and detailed. A student who receives a *B* on a welding project, for example, may not know why the grade was a *B* instead of an *A*. Parents may want to know what their child needs to do to improve. Employers will want to know which welding techniques the student attempted and what a *B* means in terms of the student's job skills. Employers may also be interested in knowing how well the student works with others, follows and give directions, cares for equipment, and so on.

Written comments such as the following are a good way for you to inform students, parents, employers, and others of how well the student performs and how the student's performance can be improved.

> "Gene's welding is very acceptable. He is careful and neat. However, he works slowly and would probably not be able to do production welding. He also has difficulty welding overhead and is not able to weld satisfactorily with a DC reverse polarity electrode. Gene's welding of light-gauge metals is improving and will soon be up to industry standards. He needs to continue working on heat control. . . ."

Written comments must express your appraisal of the student's performance. They should be **specific** enough to reflect the student's accomplishments, yet **broad** enough to offer a general assessment of the student's state of development.

Comments must also be sufficiently factual and **well-documented** that they are not subject to misinterpretation. Since student records, reports, and other information are being opened to more and more audiences, you should be aware of current state and federal legislation that regulates the type of information that may be placed in student files.

## Skill Reports

Skill reports are checklists of competencies or objectives that are used to evaluate student performance. They are more specific than the letter grades on typical grade reports because performance in laboratory skills is reported separately from other types of performance, such as attitudes, work habits, and cooperativeness. Sample 1 is an example of a skill report.

Skill reports can be attached to the school's official grade report to clarify or supplement the required grading system. A skill report form, properly filled out and signed by the vocational teacher, can be of great value to prospective employers.

**SAMPLE**

# LAB ACHIEVEMENT REPORT

Name _____ Teacher _____

| Skill \ Rating | Grading Period 1 | | | 2 | | | 3 | | |
|---|---|---|---|---|---|---|---|---|---|
| | Above Average | Average | Below Average | Above Average | Average | Below Average | Above Average | Average | Below Average |
| Shampoo and Rinse | X | | | X | | | X | | |
| Finger Waves | | X | | | X | | X | | |
| Skip Waves | | X | | X | | | X | | |
| Hair Cutting | | | X | | X | | | X | |
| Hair Styling | | X | | | X | | X | | |

SOURCE: Ray M. Jacobs, "What Did You Do in School Today? Umm . . . Nuttin," *AVA Journal*, 47 (May 1972): 45.

## Self-Evaluation

As a part of the grading system, you might ask students to grade themselves. Teachers who have used a self-evaluation approach to grading have found that certain prerequisites are necessary for it to be successful.

First, students must understand that they are to evaluate their own performance in an **objective,** accurate manner. Second, students must learn to **recognize** various levels of achievement. You can provide students with models or examples of various levels of performance (A, B, C, D, F, or satisfactory and unsatisfactory) to use in self-evaluation.

For example, an automotive mechanics teacher could show students a valve that has been ground correctly and give them specifications and measurements to use in rating their own performance.

Or, the teacher could provide score sheets that itemize each element of the required performance. Sample 2 is an example of such a score sheet. It illustrates the type of objective guidelines students need in order to evaluate their own performance successfully. After students have given themselves a grade, they should be asked to explain **why** they evaluated their performance as they did.

**SAMPLE 2**

# SCORE SHEET

**Sawhorse Evaluation Score Sheet**

**Name:** _____ **Date:** _____

| | Points Allowed | Points Earned |
|---|---|---|
| 1. Correct dimension—22 points | | |
| a. Height at one end of beam | 4 | |
| b. Height at opposite end of beam | 4 | |
| c. Spread of legs at one end, width | 4 | |
| d. Spread of legs at opposite end, width | 4 | |
| e. Length of beam | 2 | |
| f. Beam extension beyond leg at one end | 2 | |
| g. Beam extension beyond leg at opposite end | 2 | |
| 2. Correct leg angles—30 points | | |
| a. 90 degree angle between beam and table top at one end | 6 | |
| b. 90 degree angle between beam and table top at opposite end | 6 | |
| c. Equal spread of legs at one end (equal amount from centerline) | 4 | |
| d. Equal spread of legs at opposite end | 4 | |
| e. All four legs on floor | 6 | |
| f. Correct level on the bottom of all four legs | 4 | |
| 3. Joint preparation, correct angles and fit-up—28 points. | | |
| a. Leg in beam, leg 1 | 4 | |
| b. Leg in beam, leg 2 | 4 | |
| c. Leg in beam, leg 3 | 4 | |
| d. Leg in beam, leg 4 | 4 | |
| e. Outside brace at one end | 2 | |
| f. Outside brace at opposite end | 2 | |
| g. Inside brace at one end | 2 | |
| h. Inside brace at opposite end | 2 | |
| i. Screws properly countersunk | 4 | |
| 4. Finishing the sawhorse—20 points | | |
| a. Paint job | 10 | |
| b. Completion of sawhorse within time scheduled | 6 | |
| c. Accurate bill of material on completed project | 4 | |
| **Points Earned** | | |

| | | |
|---|---|---|
| 5. General appearance (minus points for each infraction) | | |
| a. Cracked, split, or chipped boards | −2 | |
| b. Excess wood adhesive | −1 | |
| c. Contact joint without adhesive | −5 | |
| d. Wood grain running the wrong direction | −4 | |
| e. Screw and nail placement improper | −3 | |
| **Minus Penalty Points** | | |
| **Total Points Earned** | | |

## Contract Grading

Contract grading allows a student to make a contract with you for a particular scope of work and to receive a predetermined grade after meeting the terms of the contract. Contract grading is most effective if you explain how the system works and then give the student two or three weeks to decide on a contract. While two or three weeks may seem a bit long, it is crucial that students understand the sytem thoroughly before making a commitment.

Several types of contract grading are used, each offering more or less freedom to the student and demanding different degrees of maturity and responsibility. One type of contract lists the **minimum requirements** that must be met by students to receive a *D* or a *C*. Students who contract for a *B* are then allowed to select (from a list of possible assignments) the additional assignments they wish to do. Students may propose to complete special assignments to receive an *A*.

Contracts are cumulative in that work that receives a low grade must be completed satisfactorily before the student can receive higher-level grades. Additionally, all work is graded *S* or *U*. If any work is judged to be unsatisfactory, the student is told why it is unsatisfactory and allowed to revise it until it is acceptable.

If you use this type of contract grading, you must be careful that contracts are not simply quantity-oriented, but quality-oriented as well. That is, students should not receive a *B* simply by doing **more** of the same calibre work than students who contract for a *C*.

Another type of contract grading involves **student proposals.** It gives students complete freedom to do whatever they choose in order to receive their final grade. As the instructor, you ask students to write down what they plan to do for the grading period. Then you review each student's proposal and decide whether it is acceptable. This type of contract grading is flexible and informal and very appropriate for postsecondary students. Most high school students, however, are not able to plan a scope of work without guidance from the teacher.

A third type of contract grading involves **variable grade contracts.** These are contracts that specify a scope of work but allow students to decide how much weight each type of work will have in determining their final grade. Students are free to assign more weight to their strong areas (e.g., class reports) than to their weak areas (e.g., written examinations) in contracting for their final grade. Since the teacher sets a minimum and maximum percentage for each category of work, the student must demonstrate at least minimal performance in each area.

Variable contracts allow you to assess student performance on either a traditional (A, B, C, D, F) or a competency (S/U) basis. Variable contracts may be incorporated into the S/U grading system by letting students redo unacceptable work until a satisfactory level of performance is attained. Samples 3 and 4 are examples of variable contracts for determining laboratory and related classroom grades.

You should realize that contract grading requires more time than many other grading systems because each student's grade is determined differently according to his/her individual contract. Contract grading also takes more time if you allow students to redo work until they are satisfied with their performance. However, contract grading is highly motivating to many students and gives them opportunity to develop self-discipline and personal responsibility.

**SAMPLE 3**

# LABORATORY VARIABLE GRADE CONTRACT

**Instructions:** Select the percentage value you wish each of the following activities to count for your quarter laboratory grade. You may choose any value within the indicated limits, providing the total for all items equals 100%. Enter the percentage value you select in the blank to the left of each item. Complete both copies and return them to the instructor. This contract is final and may not be renegotiated during the quarter.

| % Desired | Experiences to Be Evaluated |
|---|---|
| _____% | 30%–60% Complete and accurate records of school laboratory and on-the-job experiences in the record book provided |
| _____% | 10%–40% Laboratory work habits as shown on the Co-op Student Evaluation Form completed by the instructor |
| _____% | 10%–30% Laboratory performance tests; 5–10 will be given during the quarter |
| _____% | 0%–15% Home Improvement Projects as approved by the instructor at the beginning of the quarter and evaluated by the instructor before the final week |

Signature of Student _____ Date _____ Signature of Instructor _____ Date _____

SOURCE: Richard Gustafson, Montgomery County Joint Vocational School, Clayton, Ohio.

**SAMPLE 4**

# RELATED CLASS VARIABLE GRADE CONTRACT

**Instructions:** Select the percentage value you wish each of the following activities to count for your quarter related class grade. You may choose any value within the indicated limits, providing the total for all items equals 100%. Enter the percentage value you select in the blank to the left of each item. Complete both copies and return them to the instructor. This contract is final and may not be renegotiated during the quarter.

| % Desired | Experience to Be Evaluated |
|---|---|
| _____% | 30%–60% Announced and unannounced quizzes over material currently being studied |
| _____% | 5%–20% Complete and accurate class notes kept in loose-leaf notebook provided |
| _____% | 5%–15% Oral and written reports on articles in approved magazines dealing with horticulture; two will be completed during the quarter |
| _____% | 0%–15% Written report on a subject of special interest within the field of horticulture |
| _____% | 5%–20% Written Final Examination |
| _____% | 5%–20% Relevant class participation and behavior consistent with meeting the goals of the program |

| Signature of Student | Date | Signature of Instructor | Date |
|---|---|---|---|

SOURCE: Richard Gustafson, Montgomery County Joint Vocational School, Clayton, Ohio.

## Grade Conversion

With increased use of performance objectives as a basis for rating student achievement, it is often necessary to convert the performance ratings a student receives during a marking period to grades that conform to the school's official reporting system.

One method of converting student performance to grades is to use the course **objectives** to develop a **performance checklist.** You could then assign passing grades to students who demonstrate a minimum acceptable level of competence and higher grades to students whose performance is better than minimal.

Sample 5 is a checklist based on performance objectives from a unit of instruction on applying for a job. Satisfactory or passing grades may be defined either in terms of the **number** of objectives completed (e.g., seven out of nine) or the **quality** of performance (e.g., at least average) or **both** (e.g., at least average on seven out of nine objectives).

Once a minimal level of performance has been identified, grades may be assigned by determining how far a student's performance exceeds or falls below that level.

Sometimes the criteria for successful performance are not all equally important. If the **critical elements** of the performance can be identified, satisfactory grades can be assigned on the basis of meeting the critical criteria. Above-average grades can be assigned on the basis of meeting the critical criteria plus demonstrating skill in some of the less critical elements of performance.

For example, if the most important element of taking a dental impression is to obtain an impression

## SAMPLE 5

# PERFORMANCE CHECKLIST

| | LEVEL OF PERFORMANCE | | | | |
|---|---|---|---|---|---|
| | UNSATISFACTORY | | SATISFACTORY | | |
| | NONE | POOR | AVG. | GOOD | EXCELL. |
| **In applying for a job, the student:** | | | | | |
| 1. developed a list of entry requirements for five jobs | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. contacted three sources of job information | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. developed a résumé for a job application | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. wrote a letter of application for a job | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. filled out a job application form completely, accurately, and neatly | ☐ | ☐ | ☐ | ☐ | ☐ |
| **During a simulated job interview, the student:** | | | | | |
| 6. was dressed and groomed neatly | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. was poised and alert | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. explained his/her qualifications for the position | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. asked for information about benefits and advancement | ☐ | ☐ | ☐ | ☐ | ☐ |

that has a clear, accurate definition, then you might award passing grades to all students who take clear, accurate impressions. Above-average grades might be assigned to students who also accomplish the task quickly and efficiently.

Certain types of student performance can be easily graded because the **quality** of the performance is directly related to a **quantity**. Typing performance, for instance, can be rated in terms of the number of words and errors typed. Sample 6 illustrates how typing performance can be converted to qualitative ratings or grades.

**SAMPLE 6**

# GRADE CONVERSION TABLE

**Third Semester Typing**

| Letter Grade | Gross Words per Minute (5 minutes) | Maximum Errors |
|---|---|---|
| A | 66 | 3 |
| B | 61–65 | 3 |
| C | 56–60 | 3 |
| D | 51–55 | 3 |

The minimum acceptable level of performance for a 5-minute test of straight typing is 51 words per minute with no more than 3 errors. Students who type faster than the minimum level receive proportionately higher grades.

Even when the criteria for successful performance are not quantitative, ratings can be expressed in terms of a number or amount, and a table can be developed for converting numbers to grades. For instance, if the evaluations for a course consist of ten performance rating sheets having ten items each, each item could be valued at one point. Grades could be based on the total number of points earned out of a possible 100.

Typically, the objectives of a vocational-technical course cannot all be evaluated in the same way. Student laboratory experiences may be evaluated by process or product checklists. Related classroom instruction may be evaluated by written tests. On-the-job performance may be evaluated by written reports from on-the-job instructors. If student grades are based on different types of evaluations, you can **assign points** to each type of performance and develop a table to convert overall points to grades.

Sample 7 is an example of how total points earned in a course can be used to determine student grades. Notice that a student's final grade reflects each type of performance for the course (examinations, quizzes, laboratory work, student leadership, and occupational experience).

## SAMPLE 7

# GRADE BASED ON TOTAL POINTS

| Type of Evaluation | Points |
|---|---|
| Written Exams (2 exams @ 150 points each) | 300 |
| Quizzes (5 quizzes @ 20 points each) | 100 |
| Laboratory Work (15 observations @ 20 points each) | 300 |
| Student Leadership (5 observations @ 20 points each) | 100 |
| Occupational Experience (10 observations @ 20 points each) | 200 |
| **Total Points Possible** | 1000 |

| Points | Grade |
|---|---|
| 900–1000 | A |
| 800– 899 | B |
| 700– 799 | C |
| 600– 699 | D |
| 0– 599 | F |

Points can be **weighted** so that they reflect the value or importance of each type of performance. For instance, in certain courses, laboratory performance may be more important than written examinations on related classroom instruction. If this is the case, points for each type of performance can be multiplied by different weights, as shown in sample 8, so that laboratory performance points are more valuable than points earned on classroom examinations.

Notice that in the method shown in sample 7, laboratory performance and performance on written exams contribute equally to a student's final grade—each contributes 300 out of a possible 1000 points, or 30 percent of the grade. In the weighted point example shown in sample 8, however, laboratory performance comprises 60 percent (120 out of 200 weighted points), while examinations comprise only 15 percent (30 out of 200 weighted points), of the student's final grade, even though the total **number** of points for each type of evaluation is the same in both examples.

The influence, or weight, of each type of performance on a student's grade will depend on which types of student performance you consider most important. For example, if the main objective of a unit of instruction is to tune an automobile engine, a written examination would probably have less influence on the student's grade in the unit than the student's **performance** in doing a tune-up.

One widely known method of assigning grades to students is that of **grading on a curve.** This method distributes student grades on the basis of a form known as *the normal curve* (hence its name). The performance of any one student in a class is compared with that of the other students, not with previously defined criteria or standards. In other words,

## SAMPLE 8

# GRADE BASED ON WEIGHTED POINTS

| Type of Evaluation | Points | | Weight | | Weighted Points |
|---|---|---|---|---|---|
| Written Exams (2 exams @ 150 points each) | 300 | × | .10 | = | 30 |
| Quizzes (5 quizzes @ 20 points each) | 100 | × | .20 | = | 20 |
| Laboratory Work (15 observations @ 20 points each) | 300 | × | .40 | = | 120 |
| Student Leadership (5 observations @ 20 points each) | 100 | × | .10 | = | 10 |
| Occupational Experience (10 observations @ 20 points each) | 200 | × | .10 | = | 20 |
| **Total Weighted Points Possible** | | | | | 200 |

| Points | Grade |
|---|---|
| 180–200 | A |
| 160–179 | B |
| 140–149 | C |
| 120–139 | D |
| 0–119 | F |

students are in competition with each other for grades, and there will always be a predetermined percentage of A, B, C, D, and F grades in every class.

It is assumed in this method that the students in the class are typical of all students (i.e., a "normal distribution") and that the teacher's tests and other measures are so well designed that they will yield a well-distributed range of scores. Both these assumptions are probably false.

A very simple and basic method of computing grades on a curve is to take the total points (or weighted points) earned by each student in the class and arrange the scores in order from highest to lowest. Then assign each one a letter grade relative to the student's class standing.

For example, in a drafting class with 30 students, the grade distribution would be as follows:

| Relative Class Standing | Number of Students | Letter Grade |
|---|---|---|
| Top 10% | 3 | A |
| Next 25% | 7 | B |
| Next 45% | 14 | C |
| Next 15% | 4 | D |
| Bottom 5% | 2 | F |
| | 30 | |

There are a number of serious deficiencies in this system of grading, in addition to the questionable assumptions already mentioned. For example, even if the whole class is very competent, some failing and very low grades are still given. If the entire class is working at a low level of accomplishment, three students will still get *A*s.

This kind of grading gives the prospective employer (and the student) little or no information about students' occupational skills. Grading on a curve has

little justification in vocational-technical courses. It is described here because it is widely used in large university classes and thus may seem attractive to instructors who may want to apply it in their own programs.

## Recording Grades

The method of recording student grades that is most efficient will depend on the grading systems you use. The method you choose should be well organized, clear, and convenient to use. You need to be able to refer quickly and easily to any given student's grades and to understand exactly what you meant by notations made at an earlier point in the grading period. Your recording system should make it easy for you to review—and explain—how you arrived at each grade. Your system of recording grades should also be in accordance with any policies your school or college may have.

Physically, a grade recording system can take a variety of forms. Index cards, a loose-leaf notebook, and the traditional grade book are options. Some of the forms shown in samples 1 to 8 can be adapted for record keeping by providing space for inserting the student's grades and your comments. Sample 9 is a partial example of how the weighted point system in sample 8 could be adapted for record keeping. This kind of form could be reproduced in a loose-leaf notebook, with one or more pages for each student.

SAMPLE 9

# GRADE RECORDING FORM

Name _____

Class/Period _____

**Written exams** @ 150 points each

| | Date | Topic | Points | Weight | Weighted Points | Comments |
|---|---|---|---|---|---|---|
| 1. | | | | × .10 = | | |
| 2. | | | | × .10 = | | |

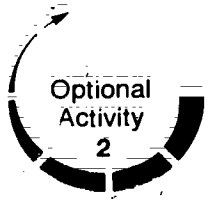
**Quizzes** @ 20 points each

| | Date | Topic | Points | Weight | Weighted Points | Comments |
|---|---|---|---|---|---|---|
| 1. | | | | × .20 = | | |
| 2. | | | | × .20 = | | |
| 3. | | | | × .20 = | | |
| 4. | | | | × .20 = | | |
| 5. | | | | × .20 = | | |

**Lab work** @ 20 points per observation

| | Date | Activity | Points | Weight | Weighted Points | Comments |
|---|---|---|---|---|---|---|
| 1. | | | | × .40 = | | |
| 2. | | | | × .40 = | | |
| 3. | | | | × .40 = | | |
| 4. | | | | × .40 = | | |
| 5. | | | | × .40 = | | |
| 6. | | | | × .40 = | | |
| 7. | | | | × .40 = | | |
| 8. | | | | × .40 = | | |
| 9. | | | | × .40 = | | |
| 10. | | | | × .40 = | | |
| 11. | | | | × .40 = | | |
| 12. | | | | × .40 = | | |
| 13. | | | | × .40 = | | |
| 14. | | | | × .40 = | | |
| 15. | | | | × .40 = | | |

**Total** _____




For information on alternatives to grading, you may wish to read the following supplementary reference: Bellanca, *Grading*. This book describes and compares alternative forms of evaluation, including normative, criterion-referenced, and self-evaluative. A variety of examples and sample forms are also provided.


You may wish to arrange through your resource person to meet with a vocational teacher in your occupational specialty who is experienced in determining student grades to discuss the methods he/she uses.

Specifically, you could discuss such topics as the following:

- The kinds of evaluation data the teacher uses in making decisions about grades (e.g., laboratory skill tests, written reports, examinations, service activities, and class participation)
- The grading systems the teacher uses
- The teacher's method of recording and reporting grades (e.g., forms used, record-keeping system used)
- The report forms and grading system the school requires


The following items check your comprehension of the material in the information sheet, Grading Students, pp. 6–20. Each of the five items requires a short essay-type response. Please explain fully, but briefly, and make sure you respond to all parts of each item.

## SELF-CHECK

1. Assume that you are teaching in an institution that uses the following grading and reporting policies:

   Grades shall be issued each nine weeks by all instructors on the forms provided by the school. All grades will become part of the student's permanent record. A comprehensive examination shall be administered in each course at the end of each grading period. The following grading system shall be used to assign student grades:

   A = Excellent work; clearly superior performance
   B = Good work; better than average
   C = Average work; acceptable
   D = Below average work; barely acceptable
   F = Work not acceptable
   I = Incomplete; work must be completed before a final grade is given

## GRADE REPORT

| | GRADING PERIOD | | | | | |
|---|---|---|---|---|---|---|
| SUBJECT | 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Enter the name of a vocational-technical course that you teach or will teach in a blank subject space on the card.

Based on the school policy presented on the previous page, which of the following types of grading systems could you use to determine students' final grades for your course, and how would you use each system?

a. Traditional grades

b. S/U grades

c. P/F grades

d. Written evaluations

e. Skill reports

f. Self-evaluation

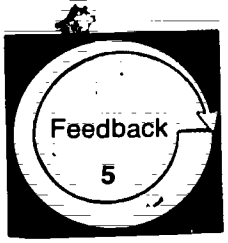
g. Contract grading

2. If you were an instructor in a school that required that students be evaluated on their work habits at the end of each grading period, which type(s) of grading system would you use to evaluate student work habits? Why?

3. Why is a point system helpful in determining student grades?

4. Critique the following statement: "Any grading system is adequate as long as the teacher abides by it and students understand and accept it."

5. How can S/U grades be converted to traditional grades?




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

1. a. **Traditional grades**—The school's grading policy specifies that students receive traditional grades on their official report form. Therefore, traditional grades would be useful in evaluating student's performance during the grading period.

   b. **S/U grades**—These are not permitted on the official report form. However, there is no reason that you cannot use S/U grades to evaluate students' daily performance and then convert them to traditional A, B, C, D, F grades at the end of the grading period.

   c. **P/F grades**—These are not provided for within school policy. Since the P/F system is typically used on a schoolwide basis, it would not be appropriate to use in determining students' final grades.

   d. **Written evaluations**—Although school policy does not provide for detailed written comments, it does not prohibit you from attaching supplemental information to the students' report forms.

   e. **Skill reports**—Like written comments, skill reports could be attached to the report forms as supplemental information about the students' achievement.

   f. **Self-evaluation**—If you gave students examples or models of A, B, C, D, F work to follow in evaluating their own performance, you could use self-evaluation as a basis for determining student grades.

   g. **Contract grading**—You could use contracts to determine student grades provided that the grades specified in the contracts conform to those specified by school policy.

2. Evaluation of students' general work habits could probably best be done by using written evaluations. Written comments would allow you to describe specific student behaviors and to indicate how students' work habits could be improved.

   If general work habits were broken down into a list of criteria, such as promptness, dependability, efficiency, neatness, and safety precautions, a checklist like the one shown on p. 15 could be used to rate students' work habits.

   Traditional grades could also be used to evaluate students' work habits. However, unless specific criteria were determined for each level (A, B, C, D, F) of performance, it would be very difficult to evaluate students' work habits using traditional letter grades.

3. A point system is helpful in determining student grades because it allows the values of different types of ratings to be compared. For example, if laboratory performance tests are worth 200 points and written exams are worth 100 points, laboratory performance tests are more important than written exams in determining student grades.

   Furthermore, the number of points for each type of performance can be compared to the total points. For example, if laboratory performance tests comprise 200 points out of a possible 1000 points, they count as 20 percent of a student's grade in the course.

4. It is true that it is crucial that students understand how their grades are determined. However, grades are important not only to students, but to administrators, other teachers, and employers as well. Your grading system must therefore be understandable to all who will need to interpret students' grades.

   Employers use grades as a basis for evaluating student achievement. You may wish to ask advisory committee members for suggestions and recommendations concerning what type of grading system would provide employers with the type of information they need.

   The grading system that you use must be consistent with your institution's grading policy. If your course is part of a group of sequenced or related courses that are offered cooperatively, then your system should be part of a common, uniform, grading system.

5. A *satisfactory* rating indicates only that a student's performance is at least above a certain cutoff point. It does not distinguish a student who is just

barely above that cutoff point from one who is far above it. To convert S/U grades to traditional grades, you should first establish the criteria necessary for minimum acceptable performance and then rank students according to how far above or below that cutoff point their performance falls.

For some types of performance, the only level that is acceptable is a superior performance, so that an *S* rating would be equivalent to an *A*. For other types of performance, an *S* may be equivalent to a *C* or *D*, whichever is the minimum passing grade.

**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, Grading Students, pp. 6–20, or check with your resource person if necessary.

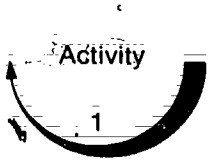
# Learning Experience II

## OVERVIEW


Given case studies describing how vocational teachers determined student grades, critique the performance of those teachers.


You will be reading the Case Studies, pp. 28–30, and critiquing the performance of the teachers described.


You will be evaluating your competency in critiquing the teachers' performance in determining student grades by comparing your completed critiques with the Model Critiques, pp. 31–32.




The following case studies describe how two vocational teachers determined student grades in their vocational courses. Each case study is followed by questions related to the teacher's performance. Read each case study and **critique in writing** the performance of the teacher described, using the questions as a guide.

# CASE STUDIES

## Case Study 1:

Since he was new at Blue Valley Technical Center, Jim McFadden wasn't sure what kind of grading system the school used. He stopped by to see Mr. Stoll, the Director of Instruction, who sent him to Mark Wright, an instructor in the T & I Department. "You two will want to get together anyway, because you'll be team teaching with Mark next term," Mr. Stoll said.

Mark and Jim got together to review the school's grading system. "Here's how I do it," Mark explained as he took out a box full of index cards with students' names and grades on them. "See, here's a card from last term." Mark showed Jim the following card:

| John Wayner | |
|---|---|
| Written Exam (40 pts.) | 65% |
| Blueprint Quizzes (10 pts. ea.) | 8 6 7 |
| Class Participation | Good |
| Drawing Assignments (5) | B− B A A− B+ |
| Project Plan | S+ |
| Project Work | Contract completed 4/6 |
| Work Habits (10-item rating) | Needs improvement on 3 |
| | |
| Final Grade B+ | |

"Now here's a student who's not really outstanding—just barely passed the final exam. But he did about the best project I've ever seen. He'll do fine on the job, and that's what counts. When you meet the advisory committee, you'll find out why I put a lot more emphasis on what students can do—plan a job, get it in on time, do it right, things like that—than on what they know on an exam."

"Exactly how did you decide to give this student a *B+*?" Jim asked after Mark put the card away.

"Well, the school has its own grading scale. *A* is excellent, *B* is good, *C* is average, *D* is just barely passing, and *F* is failing," Mark explained. "John Wayner is not what I'd call an excellent student—but he's well above average."

"Thanks a lot, Mark. You've been a lot of help," Jim said as he went back to his office.

***How adequate do you think Mark Wright's grading system is? What aspects of it do you like? How would you improve it? Do you feel that the grade he assigned to John Wayner was fair? Explain your answers.***

## Case Study 2:

Les Waite was sitting in his office reviewing his lesson plan when Lisa Todd dropped by to discuss her exam grade with him.

"Mr. Waite, I got a *C*– on the last exam, and I was wondering if there's still a chance for me to get a *B* in horticulture."

Les took out his grade book and looked at Lisa's grades. "Looks like you're having trouble with the exams, Lisa."

"Well, Mr. Waite, I've been so busy with my job at the greenhouse that I haven't studied as much as I should. I got a *C*– on the first exam, and I was hoping to do better on this one, but I got a *C*– on it, too."

Les did some arithmetic on a note pad. Then he showed Lisa the grading system below:

| | | Weight | Weighted Points |
|---|---|---|---|
| Exams (3 @ 100 pts.) | 300 | .50 | 150 |
| Lab Assignments (5 @ 20 pts.) | 100 | .50 | 50 |
| | | Total | 200 |

**Grade Scale**

| | |
|---|---|
| 180–200 | A |
| 160–179 | B |
| 140–159 | C |
| 120–139 | D |
| Below 120 | F |

"Your exams only count half of your grade. Right now you've got a 70 average on them. But you've gotten 20s on all 3 lab assignments. Even if you get a *C* on the last exam, Lisa, you'll still get a *B* in the course, because you'll have an *A* in half of it to balance the *C* in the other half."

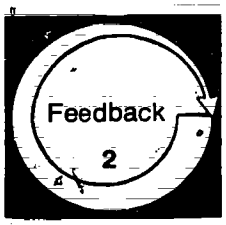
Lisa breathed a sigh of relief. "I wasn't sure just what your grading system was. At least I'll get a *B*. It's really important to me because I'm hoping to work at Sprout's full-time after I graduate, and Miss Green said she'd like to see my grade report from this class."

"That won't be a problem, Lisa. Just go down to the school office after the term ends, and they'll make you a copy of your grade report. You might even be lucky and get an *A* in the course," Mr. Waite said.

"Gee, thanks, Mr. Waite. Thanks a lot!"

Mr. Waite went back to his lesson plans.

***How well did Mr. Waite perform in establishing a grading system for the course? What do you think of his method of determining student grades? What suggestions would you offer him for improvement?***




Compare your written critiques of the teachers' performance with the model critiques given below. Your responses need not exactly duplicate the model responses; however, you should have covered the same **major** points.

# MODEL CRITIQUES

## Case Study 1:

Mr. Wright's grading system is good in several respects. He has included a wide variety of measures in determining students' final grades, and he has used a number of grading systems (e.g., letter grades, S/U, skill ratings, and contracts). He provided students with regular, frequent appraisals of their work. He considered the input of his advisory committee in weighting grades, and his system conforms to school grading policy. In addition, his method of recording grades is neat and well organized.

Nevertheless, there are several major problems with his grading system. The main problem is that, although he has sampled a variety of performance measures, there is no way of knowing exactly how much influence each one has on the student's final grade. For example, if John's "class participation" had been average or poor, would this have made a difference in his grade? And, just how did Mr. Wright determine that this participation was "good"?

Mr. Wright says he puts more emphasis on students' ability to apply their knowledge than on written exams, but he does not specify how much weight each type of performance has. For example, he has not indicated a grade for John's project. He notes that the contract was completed, but we have no way of knowing what grade John contracted for or what weight his project work had in determining John's final grade.

Another major problem with the system he uses is that there is no table for converting non-letter grades into letter grades. It is difficult to know whether the grade he gave John Wayner was fair or not. Certainly, it would be difficult for John himself to know why he got a *B+* in the course, since the drawing assignments were the only type of performance for which he received letter grades.

In the end, it appears that Mr. Wright uses his own subjective judgment of a student's performance, rather than his grading system, as a basis for determining student grades.

## Case Study 2:

Mr. Waite's grading system is shaky at best. He has not explained to Lisa, or presumably to the rest of his students, just how their grades are determined. He reports students' grades to them in letters (Lisa got a *C−* on her exam), yet he uses points to determine their final grade.

Furthermore, his sample of performance measures is quite limited. Lisa has a job related to the course, and evidently her employer is very satisfied with her on-the-job performance. Yet Mr. Waite has not included on-the-job experience in his grading system.

Moreover, Mr. Waite is confused about his own grading system and has given Lisa false information. A weight of .50 for exams and lab assignments does not mean that both contribute equally to the final grade. The number of points for exams (300) is greater than the number of points for lab assignments (100). Rather than counting as half, Lisa's exams count as 75 percent of her grade (150 points out of a possible 200).

Therefore, if she gets a 70 on the last exam, her grade would be figured as follows:

| | | Weight | Weighted Points |
|---|---|---|---|
| Exams (3 @ 70 pts.) | 210 | .50 | 105 |
| Lab Assignments (5 @ 20 pts.) | 100 | .50 | 50 |
| | | **Total** | 155 |

Using Mr. Waite's grading scale, Lisa would get a *C*, not a *B*, in the course. Furthermore, even if she gets 100 points on the last exam, it is impossible for her to get an *A* in the course:

| | | | |
|---|---|---|---|
| Exams (2 @ 70, 1 @ 100 pts.) | 240 | .50 | 120 |
| Lab Assignments (5 @ 20 pts.) | 100 | .50 | 50 |
| | | **Total** | 170 |

If Lisa does get a *B* in the course, there is no way for her employer to know what a *B* means in terms of Lisa's performance unless Mr. Waite attaches written comments or a more specific evaluation of Lisa's work to the grade report. A letter grade of *B* will not reflect the fact that Lisa's lab work is outstanding, because her grade is an average of all her work.

**Level of Performance:** Your written critiques of the teachers' performance should have covered the same **major** points as the model critiques. If you missed some points or have questions about any additional points you made, review the material in the information sheet, Grading Students, pp. 6–20, or check with your resource person if necessary.

# Learning Experience III

## FINAL EXPERIENCE


In an **actual teaching situation,*** determine student grades.


As part of your teaching duties, devise and implement an appropriate grading system for a class. This will include—

- consulting with school officials, other teachers, members of your advisory committee, students, and parents as necessary to identify a system of grading that meets your needs
- establishing standards of performance and informing students of these standards and the grades associated with each level of performance
- determining student grades at regular intervals

**NOTE:** Due to the nature of this experience, you will need to have access to an actual teaching situation over an extended period of time (e.g., four to six weeks).

As you complete each of the above activities, document your actions (in writing, on tape, through a log) for assessment purposes.


Arrange to have your resource person review your documentation.

Your total competency will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 35–36.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in determining student grades.

*For a definition of "actual teaching situation," see the inside back cover.

# NOTES

# TEACHER PERFORMANCE ASSESSMENT FORM

Determine Student Grades (D–5)

Name _____

Date _____

Resource Person _____

**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.

| | LEVEL OF PERFORMANCE | | | | | |
|---|---|---|---|---|---|---|
| | N/A | None | Poor | Fair | Good | Excellent |
| **The grading system that the teacher developed:** | | | | | | |
| 1. was based on student performance objectives for the course | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. sampled student performance from all areas of the course | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. weighted the relative contribution of each type of performance on the basis of its relative importance | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. provided a consistent method for assigning student grades to various levels of student performance | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. conformed to schoolwide grading policy | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. was compatible with the grading system used by other vocational teachers teaching related courses | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. reflected the suggestions and advice offered by members of the advisory committee on behalf of employers | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. provided an organized, convenient way of recording grades | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **In determining student grades, the teacher:** | | | | | | |
| 9. informed students of the basis and system for determining their grades | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. maintained accurate and complete records of student performance | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. assigned grades that were consistent with the grading system | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 12. provided students with regular appraisals of their achievement | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

| | N/A | None | Poor | Fair | Good | Excellent |
|---|---|---|---|---|---|---|
| 13. provided useful information about students' achievement to administrators and other teachers within the school | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 14. provided meaningful information to employers, parents, and others outside the school | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

**Level of Performance:** All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the teacher and resource person should meet to determine what additional activities the teacher 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 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 perfonn 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 Occupational Advisory Committee
- A-5 Maintain an Occupational Advisory Committee
- A-6 Develop Program Goals and Objectives
- A-7 Conduct an Occupational 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 Interests 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 Trips
- C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
- C-3 Employ Brainstorming, Buzz Group, and Question Box Techniques
- C-4 Direct Students in Instructing Other Students
- C-5 Employ Simulation 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 Summarize a Lesson
- C-12 Employ Oral Questioning Techniques
- C-13 Employ Reinforcement Techniques
- C-14 Provide Instruction for Slower and More Capable Learners
- 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 Flannel 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 Televised and Videotaped Materials
- C-28 Employ Programmed Instruction
- C-29 Present Information with the Chalkboard and Flip Chart
- C-30 Provide for Students' Learning Styles

### 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 Reporting 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 Articles Concerning Your Vocational Program
- G-6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
- G-7 Conduct an Open House
- G-8 Work with Members of the Community
- G-9 Work with State and Local Educators
- 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 Vocational 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 Professionally
- I-2 Serve Your Teaching Profession
- I-3 Develop an Active Personal Philosophy of Education
- I-4 Serve the School and Community
- I-5 Obtain a Suitable Teaching Position
- I-6 Provide Laboratory Experiences for Prospective Teachers
- I-7 Plan the Student Teaching Experience
- I-8 Supervise Student Teachers

### Category J: Coordination of Cooperative Education

- J-1 Establish Guidelines for Your Cooperative Vocational Program
- J-2 Manage the Attendance, Transfers, and Terminations of Co-Op Students
- J-3 Enroll Students in Your Co-Op Program
- J-4 Secure Training Stations for Your Co-Op Program
- J-5 Place Co-Op Students on the Job
- J-6 Develop the Training Ability of On-the-Job Instructors
- J-7 Coordinate On-the-Job Instruction
- J-8 Evaluate Co-Op Students' On-the-Job Performance
- J-9 Prepare for Students' Related Instruction
- 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 Install 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 Assess the Progress of Exceptional Students
- 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 Reading 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

### 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**

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