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- I Instruction of the learner
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- E Evaluation of learner's degree of achievement of objectives

These six functions provide neither a mutually exclusive nor a collectively exhaustive statement of a teacher's functions or responsibilities. They do, however, describe a large part of a teacher's job and provide an organization for identifying specific competencies. For each of the six functions, one can identify sets of skills needed to carry out that portion of a teacher's total task. These sets of skills are called "competency clusters."

To date, thirty-seven competency clusters have been identified; it is expected that others will be added as our work proceeds. These clusters are shown in Figure 1. The rows in the figure represent teaching functions. Each row contains competencies hypothesized as being necessary for performing the teaching function assigned to that row. For example, the teaching function, "Instruct Learners," has competency clusters for tutoring, question-asking, probing, and organizing teaching teams.

Because teachers do not require training in all teaching competencies prior to entry into the classroom, the clusters have been grouped into three experience levels (the three columns in Figure 1).

- Level 1 Basic competencies for novice teachers and para-professionals. These skills should be acquired either before entry into the classroom or during initial contacts with students.
- Level 2 Competencies for experienced career teachers. These are skills which may best be developed through in-service or on-the-job training

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ABSTRACT

In this paper, a scheme for organizing teaching skills or competencies is described. The competencies listed were identified by using a combination of four methods: polling; poaching from prepared lists; observing; and, mainly, analyzing the teaching act. The paper states that the analysis was strongly influenced by Freider's work in which six teaching functions are identified. It is indicated that to date thirty-seven clusters have been identified and grouped into three experience levels. The appendix includes specific outcomes or performance statements for each competency cluster shown in the grid in the text of the paper. (JA)

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Competencies For Performance-Based
Teacher Training

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Growing dissatisfaction with the quality of instruction in the United States has led to suggestions that teacher certification be based upon clearly defined performance criteria. The states of California, Florida and New York, for example, are now instituting such performance-based systems. It is likely that many other states will follow.

No satisfactory description of the components of a performance-based system of teacher training currently exists, however. Aside from being able to describe general system characteristics (e.g., prespecified operational objectives, objective-based instruction, and evaluation), little attention has been given to specific competencies that must be developed, the manner in which these competencies are interrelated, and procedures by which they can be taught to pre- and inservice teachers.

In this paper we will present an organization scheme for identifying and classifying skills for teacher training programs. We also will list the competencies we have identified and describe a delivery system for making the training available to teachers in preservice or on-the-job locations.

Performance-Based Teacher Training (PBTT)

Performance-based systems of teacher training are based on the assumption that a set of skills, attitudes, and cognitions

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exists whose possession increases the likelihood of a person being a successful teacher.

A further assumption of PBT programs is that at least a portion of these skills, attitudes, and cognitions can be identified, stated in operational terms, and promoted through instruction. In PBT these goals are stated in advance of instruction. The program developer orients his instruction toward them, and both the training program and the teacher being trained are evaluated in terms of the trainee's ability to demonstrate mastery of the prespecified objectives.

Identification of Teaching Skills

Identification of the objectives for performance-based teacher training can proceed in several ways:

1. By polling interested parties: teachers, principals, supervisors, or teacher educators can be asked what skills they think teachers ought to learn.
2. By poaching from prepared lists: various institutions (1) and individuals (2) have listed teaching skills that can serve as sources for objectives.
3. By observing how experienced teachers act: observations can be made of master teachers at work in an effort to identify the teaching skills they use (3).
4. By analyzing the teaching act: Stolurow (4) and others have suggested that teaching skills can be identified by analyzing the psychological requirements for learning to take place.

The competencies listed in this paper were identified by using a combination of the four methods with an emphasis on the latter, analysis of the teaching act. Our analysis was strongly influenced by Freider's (5) work in which six teaching functions are identified. These functions compose the acronym CDP_{PRIME} as follows:

- O Formulation of objectives for learning activities
- D Diagnosis of the learner's instructional needs
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- I Instruction of the learner
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- E Evaluation of learner's degree of achievement of objectives

These six functions provide neither a mutually exclusive nor a collectively exhaustive statement of a teacher's functions or responsibilities. They do, however, describe a large part of a teacher's job and provide an organization for identifying specific competencies. For each of the six functions, one can identify sets of skills needed to carry out that portion of a teacher's total task. These sets of skills are called "competency clusters."

To date, thirty-seven competency clusters have been identified; it is expected that others will be added as our work proceeds. These clusters are shown in Figure 1. The rows in the figure represent teaching functions. Each row contains competencies hypothesized as being necessary for performing the teaching function assigned to that row. For example, the teaching function, "Instruct Learners," has competency clusters for tutoring, question-asking, probing, and organizing teaching teams.

Because teachers do not require training in all teaching competencies prior to entry into the classroom, the clusters have been grouped into three experience levels (the three columns in Figure 1).

- Level 1 Basic competencies for novice teachers and para-professionals. These skills should be acquired either before entry into the classroom or during initial contacts with students.
- Level 2 Competencies for experienced career teachers. These are skills which may best be developed through in-service of on-the-job training

Skill Levels Teaching Functions	LEVEL 1 Beginning Teacher	LEVEL 2 Experienced Teacher	LEVEL 3 Master Teacher
SPECIFY OBJECTIVES	1.10 Writing Objectives I** 1.11 Selecting Objectives 1.12 Cognitive, Affective and Psychomotor Objectives	1.20 Writing Objectives II 1.21 Bloom's Taxonomy 1.22 Affective and Psychomotor Taxonomies	1.30 Sequencing Objectives
DIAGNOSE LEARNERS	2.10 Constructing Evaluation Measures 2.11 Administering and Scoring Diagnostic Tests 2.12 Sight, Hearing, Speech, and Psychological Testing for Teachers	2.20 Measuring Reading Ability and Reading Level 2.21 Using and Interpreting Standardized Test Scores	2.30 Identifying Physiological and Psychological Disorders
PRESCRIBE INSTRUCTION	3.10 Selecting Materials and Resources of Instruction 3.11 Prescribing Instruction for Individuals	3.20 Organizing Peer Tutoring 3.21 Using Para-professionals in the Classroom	3.30 Training Para-professionals 3.31 Matching Students With Instruction 3.32 Developing Instructional Segments
INSTRUCT LEARNERS	4.10 Tutoring 4.11 Procedures for Individualizing Instruction 4.12 Question Asking 4.13 Leading a Discussion 4.14 Effective Lecturing 4.15 Teaching for Mastery	4.20 Probing Techniques	4.30 Organizing a Teaching Team
MOTIVATE LEARNERS	5.10 Student Record Keeping 5.11 Using Contingency Management in the Classroom	5.20 Gaining Student Attention	5.30 Organizing Contingency Management Programs 5.31 Conferencing and Counseling With Students and Parents
EVALUATE INSTRUCTION	6.10 Marks and Grades 6.11 Reporting Progress to Students and Parents 6.12 Teacher and Program Evaluation		6.30 The Teacher As Experimenter 6.31 Evaluating Affective Behavior 6.32 Analyzing Verbal Interaction

Based on a model by Frieder (Educational Technology, February, 1970)
**Each title in the chart denotes a module of instruction of varying length.

FIGURE 1. AN ORGANIZATION FOR TEACHING FUNCTIONS, SKILL LEVELS, AND TRAINING MODULES.

Level 3 Skills for a master teacher or a teacher assuming leadership responsibilities (e.g., team leader or department head) in addition to teaching.

Among the clusters contained in the second column, (i.e., skills to be acquired by experienced teachers), are competencies of objective writing, measuring reading ability, and organizing peer tutoring. These are skills which an experienced teacher should be able to perform and relate to one of the six teaching functions as indicated. Similarly, other clusters are designated for beginning or master teachers.

For each competency cluster shown on the grid in Figure 1, specific outcomes or performance statements have been identified. These performance statements, which are listed in the Appendix to this paper, operationally describe the major skills that comprise each competency cluster. For example, for the cluster "Using Para-professionals in the Classroom," five outcomes have been listed. These are:

- a. Identify appropriate and inappropriate uses of para-professionals from descriptions of teacher behavior.
- b. Describe a variety of uses for para-professionals in the classroom.
- c. Given a description of teaching tasks for a day select those suitable for the teacher and those for para-professionals to carry out.
- d. Prepare oral or written instructions for a para-professional for a specific task.
- e. Given descriptions of para-professionals in action, distinguish appropriate from inappropriate behavior according to a set of teaching rules.

Similar objectives can be found in the Appendix for each of the clusters listed in Figure 1. Since the competency clusters and sets of subskills are arbitrarily defined, we realize that alterna-

tive formulations may exist. Thus the clusters and corresponding subskills should be viewed as hypotheses subject to revision as more experience and data are gathered. Currently we are conducting a study designed to test the classification system's usefulness as a means of generating and classifying competencies. Results of this study will be reported at a later date.

Delivery Systems

Although the identification and classification of teaching skills is an interesting task in itself, the ultimate purpose of this activity is to identify a set of competencies which can form the basis of a competency-based program of pre- and inservice teacher training. Use of the grid described above has allowed us to identify and sequence a variety of skills. Establishing a delivery system capable of producing these competencies in pre- and inservice teachers is a challenge that remains.

We visualize producing an instructional module based upon each of the competency clusters listed in Figure 1.* Each module would be self-contained and would be independent of other modules in the series to the extent that this is possible. Certain prerequisite behaviors would be required, however, for entry into some of the modules. The modules would contain a variety of stimulus materials, the precise nature of which would be dependent upon the tasks being developed. In some cases the modules would be built upon pencil and paper exercises, for some audio-visual materials

*A report on the effects of using a module already developed can be found in, Okey, J. and Ciesla, J. "Designs for the Evaluation of Teacher Training Materials." Indiana University: National Center for the Development of Training Materials for Teacher Education; 1972.

would be required, and in still others, simulated or actual experiences would form the basis for instruction.

The modules would be designed to be used in a variety of settings, especially in field-based pre- and inservice training environments. Because they are non-sequential they could be used in a variety of sequences and would be especially useful for helping teachers meet whatever felt needs and interests they might have at a particular time. In particular the modules should not be thought of as a complete program of teacher education that must be studied in sequence and in total. Instead, the intention is to produce a library of training materials from which teachers can select modules of interest and value.

To provide feedback regarding development of interactive teaching skills, the modules would rely heavily upon the concept of the "Teaching Clinic" (6) and would be designed so that teachers could help critique one another without threat or embarrassment.

SUMMARY

In this paper a scheme for organizing teaching skills or competencies is described. The competencies are divided among six functions of a teacher and further classified according to when they would be learned. A description is given of how the instruction to teach the competencies can be developed and delivered.

The organization of teaching competencies should be viewed as both tentative and incomplete. Certainly the six teaching functions are not an exhaustive description of what a teacher does. Even with this constraint, however, a large part of a teacher's job can be described with the six functions. Other

teacher educators or developers may wish to add to the proposed list of competency clusters, modify them, or alter the entire scheme. The hope is that from this attempt and related efforts to organize skills for performance-based teacher training, a clearer, more complete statement may emerge of what teachers should learn to do.

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APPENDIX

The performance outcomes for each of the module titles listed in Figure 1 are given in this section. Keep in mind that this is not an exhaustive set of performance statements for each module. Major terminal outcomes for the module are listed along with some hypothesized prerequisite skills. A more complete listing of skills will be available in the future as the modules are developed.

1.10 WRITING OBJECTIVES I

- a. Construct performance objectives that include conditions of performance; behavioral terms, and standards of acceptability for given or selected topics.
- b. Given statements of intended student outcomes, classify as performance or non-performance.
- c. Construct performance objectives at the knowledge and higher than knowledge level (of Bloom) for given or selected topics.
- d. Describe commonly given reasons for stating objectives of instruction in performance terms.

1.11 SELECTING OBJECTIVES

- a. Identify commercial and public sources of performance objectives.
- b. Select objectives from available sources for given or selected topics.
- c. Describe procedures for obtaining objectives for study by consulting curriculum guides, students, community persons, and subject matter specialists.
- d. Identify appropriate and inappropriate strategies for obtaining objectives in descriptions of teacher activity.

1.12 COGNITIVE, AFFECTIVE, AND PSYCHOMOTOR OBJECTIVES

- a. Classify given objectives as cognitive, affective, or psychomotor.
- b. Construct cognitive, affective, and psychomotor objectives for given or selected topics.
- c. Describe procedures for identifying a set of cognitive, affective, and psychomotor performance objectives for a topic.

1.20 WRITING OBJECTIVES II

- a. Given an instructional goal, construct a set of objectives that define achievement of the goal.
- b. For a given or selected topic, write objectives at each of the levels of Bloom's Taxonomy.
- c. Given a scrambled set of objectives, order them from simplest to most complex.
- d. Given a terminal objective, construct one or more prerequisite objectives.

1.21 BLOOM'S TAXONOMY

- a. Construct objectives and questions for each of the levels of Bloom's Taxonomy.
- b. Given sets of objectives or questions, classify each according to the appropriate level of the Taxonomy.
- c. From memory, list each of the levels of the Taxonomy and describe the characteristics of objectives or questions for the level.
- d. Describe the philosophy behind the Taxonomy and purposes for which it might be used.

1.22 AFFECTIVE AND PSYCHOMOTOR TAXONOMIES

- a. List the categories of outcomes for the affective and psychomotor taxonomies.
- b. Given sets of outcomes, objectives or questions for the affective and psychomotor taxonomies, classify them in the appropriate category.
- c. Construct objectives or questions for each of the levels of the affective and psychomotor taxonomies.

- d. Describe possible uses by teachers and curriculum workers of an affective or psychomotor taxonomy.

1.30 SEQUENCING OBJECTIVES

- a. Given a set of related objectives, order them from simplest to most complex.
- b. Given a terminal objective, construct several prerequisite objectives.
- c. Describe procedures for generating and validating a learning hierarchy.
- d. Given a terminal objective, construct a learning hierarchy of hypothesized prerequisite tasks.

2.10 CONSTRUCTING EVALUATION MEASURES

- a. Given an affective, cognitive, or psychomotor objective, construct a test item or describe a procedure for measuring its attainment.
- b. Distinguish between formative and summative tests by describing their features and purposes.
- c. Distinguish between norm- and criterion-referenced exams by describing their features and purposes.
- d. Select appropriate procedures or items for measuring the attainment of given objectives.

2.11 ADMINISTERING AND SCORING DIAGNOSTIC TESTS

- a. Identify appropriate and inappropriate responses for given test items.
- b. Describe a procedure for administering and scoring diagnostic tests in an individualized classroom setting.
- c. Given the responses on the diagnostic tests for a set of objectives, identify potentially ineffective instructional materials and procedures.
- d. Given the diagnostic tests for a group of students, identify common errors and sort tests accordingly.
- e. Distinguish appropriate and inappropriate techniques for collecting diagnostic test data.

2.12 SIGHT, HEARING, SPEECH, AND PSYCHOLOGICAL SCREENING FOR TEACHERS

- a. Given a record of performance for a class of students: sight, hearing, or speech examination, select those that require further testing using stated criteria.
- b. Demonstrate the procedure for administering a sight, hearing, or speech examination to a child.
- c. Describe the types of behaviors a teacher might encounter that should be referred to specialists.
- d. Given descriptions of acts by children or filmed and taped accounts of behavior, select those that a classroom teacher should attempt to handle and those that require the aid of a specialist.

2.20 MEASURING READING ABILITY AND READING LEVEL

- a. For a given or selected textbook or reading passage, determine the reading level of the material.
- b. Given information on a child's reading ability and a variety of reading material on a topic, select the most appropriate materials.
- c. Determine the reading level of a student in a given or selected subject area.

2.21 USING AND INTERPRETING STANDARDIZED TESTS

- a. Identify several different standardized tests for measuring characteristics or outcomes of interest in schools (e.g., study skills, achievement motivation, creativity, or reading comprehension).
- b. Describe procedures for locating and selecting standardized tests appropriate to your school purposes.
- c. Given a set of scores from students on a specific standardized test describe the appropriate actions, if any, for a school to take.
- d. Describe appropriate and inappropriate uses for standardized tests in schools.

2.30 IDENTIFYING PHYSIOLOGICAL AND PSYCHOLOGICAL DISORDERS

- a. Describe a plan for screening all students in a school for speech, sight, hearing, and psychological problems.
- b. Prepare instructions for other teachers for administering speech, sight, and hearing tests.
- c. Describe agencies, individuals, and organizations that are available in the community for assistance with specific physiological and psychological problems of school children.
- d. Given a description of a classroom problem by a teacher, decide whether the situation requires outside help or is one that can be handled by the school.

3.10 SELECTING MATERIALS AND RESOURCES OF INSTRUCTION

- a. Describe the features (e.g., availability of objectives, practice opportunities, and receipt of feedback) that materials or procedures of instruction should include.
- b. Identify strengths and deficiencies in given pieces of instruction or from descriptions of instructional material.
- c. Select appropriate materials of instruction for given or selected objectives.
- d. Describe the types of instructional materials and resources you would seek for given or selected objectives.

3.11 PRESCRIBING INSTRUCTION FOR INDIVIDUALS

- a. Given the results of a diagnostic test, identify the objectives that need to be achieved, analyze the type of learning that is involved, and select the method of instruction.
- b. Identify possible reasons for student non-achievement when given a description of a specific situation.
- c. List possible instructional alternatives for students that fail objectives.
- d. Identify and defend a prescription for a student who failed an objective when given a description of a specific situation.

3.20 ORGANIZING PEER TUTORING

- a. Identify appropriate actions or rules for students to follow when tutoring their peers.
- b. Describe criteria and procedures for pairing students for peer tutoring.
- c. Design a short instructional program for teaching students to act as peer tutors.
- d. Identify objectives and learning problems for which peer tutoring may be an appropriate teaching strategy.

3.21 USING PARA-PROFESSIONALS IN THE CLASSROOM

- a. Identify appropriate and inappropriate uses of para-professionals from descriptions of teacher behavior.
- b. Describe a variety of uses for para-professionals in the classroom.
- c. Given a description of teaching tasks for a day, select those suitable for the teacher, and those for para-professionals to carry out.
- d. Prepare oral or written instructions for a para-professional for a specific task.
- e. Given descriptions of para-professionals in action, distinguish appropriate from inappropriate behavior according to a set of teaching rules.

3.31 MATCHING STUDENTS WITH INSTRUCTION

- a. Given a set of objectives for a unit, list the instructional alternatives that would be possible for each objective.
- b. Describe procedures for planning and operating classrooms in which learners have choices among means of achieving objectives.
- c. Describe at least two learning styles and the types of instruction most compatible with each style.
- d. Given a record of a student's past performance and characteristics, select and defend an instructional prescription for the student.

3.32 DEVELOPING INSTRUCTIONAL SEGMENTS

- a. Describe a series of steps for the systematic development of instructional materials.
- b. Given descriptions of persons carrying out various development activities, critique them using a set of recommended development rules.
- c. For a given or selected set of objectives in a subject matter area, develop a set of replicable instructional materials.
- d. Given a piece of instruction and student performance data on the objectives of the instruction, identify portions of the instruction that require further work.
- e. Given a set of instructional materials, identify appropriate and inappropriate attention to the external events of instruction in the materials.

4.10 TUTORING

- a. Given descriptions of student learning difficulties, identify those for which tutoring would be an appropriate remedy.
- b. Describe learning situations or objectives for which tutoring would be the appropriate teaching procedure.
- c. List rules for tutoring students.
- d. Classify a teacher's tutoring behavior as appropriate or inappropriate with regard to a set of given rules.
- e. Demonstrate tutoring skills by measuring and reporting altered achievement by a student you are tutoring.

4.11 PROCEDURES FOR INDIVIDUALIZED INSTRUCTION

- a. Describe alternative procedures for individualizing instruction (e.g., a continuous progress plan or individualizing within a unit plan).
- b. Describe the attributes that distinguish individualized from group-based instruction.
- c. Describe the problems and possible solutions for problems of grading, interaction between teachers and students, reporting to parents, and motivation.

- d. Prepare and/or assemble a set of interactive instruction materials for use in an individualized setting for a given or selected set of objectives.
- e. Classify outcomes of instruction as appropriate or inappropriate for study in an individualized instruction setting.

4.12 QUESTION ASKING

- a. Demonstrate the appropriate use of cognitive-memory, convergent, divergent, and evaluative questions in a class discussion.
- b. Given a tape recording of a classroom discussion, classify the teacher questions as cognitive-memory, convergent, divergent, or evaluative.
- c. Identify appropriate and inappropriate question asking practices from an audio or video recording of a classroom discussion.
- d. Write cognitive-memory, convergent, divergent, and evaluative questions for given or selected topics.

4.13 LEADING A DISCUSSION

- a. Identify appropriate and inappropriate discussion techniques from an audio or video recording of a class discussion.
- b. List the purposes and types of objectives for which discussions are appropriate and inappropriate.
- c. List rules for maintaining student attention and participation, during a discussion.
- d. Plan and carry out a discussion with a group on a given or selected topic that meets selected standards for a group discussion.

4.14 EFFECTIVE LECTURING

- a. Identify appropriate and inappropriate lecturing techniques from an audio or video recording of a classroom lecture.
- b. Design and give a lecture on a given or selected topic that meets selected standards for an effective lecture.

- c. List the purposes and types of objectives for which lectures are appropriate and inappropriate.
- d. List rules for maintaining student attention and involvement during a lecture.

4.15 TEACHING FOR MASTERY

- a. State Bloom's mastery learning hypothesis and describe its implications for teaching.
- b. List and describe the steps in a systematic plan for teaching for mastery.
- c. Identify appropriate and inappropriate practices by a teacher attempting to implement a mastery teaching plan.
- d. Demonstrate procedures for collecting and analyzing student data in a test of the effectiveness of mastery teaching.

4.20 PROBING TECHNIQUES

- a. Demonstrate the use of probing questions in a classroom discussion by asking appropriate factual, implied meaning, and application questions.
- b. Classify the questions of a teacher in a live or taped classroom discussion as to type of probe.
- c. Construct appropriate probing questions for student responses from a written or taped class classroom discussion.
- d. Describe the purposes and appropriate place of use for probing techniques.

4.30 ORGANIZING A TEACHING TEAM

- a. Describe the various roles and responsibilities for members of a teaching team.
- b. Describe a plan for dividing duties and responsibilities among team members for a given or selected unit of instruction.
- c. Describe the type of objectives and facilities for which a team teaching approach is suitable.

5.10 STUDENT RECORD KEEPING

- a. Describe efficient procedures for recording attendance and test results of students.
- b. Identify appropriate and inappropriate reports of student progress or conduct by teachers for inclusion in a permanent record.
- c. Given a description of a student's academic record and social progress for a school term, prepare a written report for inclusion in a permanent record.

5.11 USING CONTINGENCY MANAGEMENT IN THE CLASSROOM

- a. Describe how contingent reinforcement can be used to alter social and academic behaviors.
- b. Describe the kinds of reinforcers used in schools (social, activity, token, extrinsic) and give specific examples of each.
- c. Given a description of a specific school situation involving undesirable social or academic behavior, construct a plan for altering the behavior.
- d. Given a record of student behavior during a contingency management experiment, construct a graph of the behavior showing baseline and treatment behavior.
- e. Given an audio or video recording of a classroom, identify a behavior of an individual or group and record its occurrence for a specified time period.
- f. Identify instances of appropriate and inappropriate use of reinforcement by teachers from audio and video recordings in a classroom.

5.20 GAINING STUDENT ATTENTION

- a. Given an objective or topic, describe an introductory activity that will focus the attention of students on the task at hand.
- b. Describe alternative procedures for focusing the attention of students on learning activities.
- c. Given descriptions of teacher activities or filmed and taped accounts of teacher efforts to capture the attention of students, identify those that are appropriate or inappropriate.

5.21 CONFERENCING AND COUNSELING WITH STUDENTS AND PARENTS

- a. Given a description of a student's school problems, describe how you would convey this information to parents in a conference.
- b. Describe procedures for coordinating the efforts of the school and the home on the problems of students.
- c. Describe procedures for teachers to increase opportunities for individual conferences with students.
- d. Demonstrate counseling skills by identifying specific problems in a counseling session with a student.

5.30 ORGANIZING CONTINGENCY MANAGEMENT PROGRAMS

- a. Describe the rationale and philosophy for using contingency management in schools.
- b. Identify reinforcers suitable for students of various ages and backgrounds.
- c. Describe procedures for identifying effective reinforcers and administering programs in which they are used.
- d. Develop a plan for introducing other teachers to contingency management.

6.10 MARKS AND GRADES

- a. Demonstrate procedures for recording diagnostic (formative) and summative test scores.
- b. Identify appropriate uses for normative and criterion referenced grading practices.
- c. Describe procedures for determining and reporting progress to students.
- d. Select a grading policy and defend its appropriateness for a selected teaching situation.

6.11 REPORTING PROGRESS TO STUDENTS AND PARENTS

- a. Describe procedures for making parents feel at ease during a teacher-parent conference.
- b. Identify appropriate and inappropriate teacher actions in audio or video records of a teacher-student or teacher-parent conference.

- c. Given descriptions of various students' parents and academic records, describe how you would plan and carry out a conference for each with both the student and the parents.

6.12 EVALUATING TEACHING AND TEACHING MATERIALS

- a. Describe procedures for collecting student performance data to use in evaluating teachers and materials.
- b. List the features that should be included in teaching or teaching materials (e.g., opportunity for practice, knowledge of objectives, and provision of models).
- c. Given the results of student achievement on the objectives in a unit and descriptions of the teaching techniques and materials used, identify possible reasons for good and poor student performance.
- d. Describe procedures for measuring and analyzing the effectiveness of a teacher's classroom behavior.

6.30 THE TEACHER AS EXPERIMENTER

- a. Select and defend an appropriate research design for obtaining data in a described school setting.
- b. Identify designs appropriate for school research.
- c. Identify the design used in a specific school experiment from a description of activities carried out.

6.31 EVALUATING AFFECTIVE BEHAVIORS

- a. Given a statement of an affective goal, list behaviors that might indicate its attainment.
- b. Given an affective performance objective, construct items or describe procedures for measuring its attainment.
- c. Given affective objectives and alternative methods for measuring their attainment, select and defend those most appropriate.
- d. Describe procedures for identifying affective objectives, measuring their achievement, and reporting the results to students, teachers, parents, and administrators.

6.32 ANALYZING VERBAL INTERACTIONS

- a. Describe the purposes of analyzing verbal interchanges between student and teacher.
- b. Describe at least two methods of interaction analysis and list advantages and disadvantages for each.
- c. Given the student-teacher verbal interchanges from a live or taped classroom session, code the responses using a selected method, analyze the data, and prepare a feedback sheet for a teacher.
- d. Describe procedures for obtaining data on classroom verbal interchanges from teachers and reporting results to them.