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ABSTRACT
        This handbook was developed to provide adult
educators in Texas with sufficient background in assessment models to
ensure confidence in recognizing and/or selecting appropriate
measurement techniques and in using evaluation results to
individualize and improve instruction for adult students. The
handbook is based on information derived from a project that involved
a literature search, a pilot study in which some major tests were
administered to adult students, observations and interviews with
students and teachers in adult education classrooms in the San
Antonio area, a statewide survey of all adult education programs in
Texas, and presentations at regional meetings of adult educators. The
handbook presents a comprehensive assessment model for adult
education, appropriate techniques for interpreting assessment results
and for developing teacher-made assessments, and assessment
resources, including tests currently used by adult educators
throughout the state. Specific topics covered by the model include
developing measurable objectives, developing test specifications and
items, interpreting and using assessments, adult basic education,
English as a second language, General Educational Development,
competency-based high school, and other education settings. (KC)

ASSESSMENT

MODELS

FOR

ADULT EDUCATION

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JUNE 1987

A Planning, Research,
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2

ASSESSMENT MODELS FOR ADULT EDUCATION

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PREFACE

This handbook is the result of a special project designed to meet the need for information about assessments in adult education in Texas. The project involved a literature search, a pilot study in which some major tests were administered to adult students, observations and interviews with students and teachers in adult education classrooms in the San Antonio area, a statewide survey of all adult education programs in Texas (approximately 450 responses were received from teachers and administrators), and presentations during the year at regional meetings of adult educators.

The material included in the handbook should assist teachers and administrators in selecting or developing tests and in interpreting and using results for instructional decisions. Major topics covered are those recommended by Directors in their response to a survey in the fall in regard to technical assistance needed in the assessment field.

We express our gratitude to Silverio Cuellar, Director of the Adult Education Co-op #40 in San Antonio, for his overall support and advice and for the standards of excellence he models in adult education.

Our appreciation also is extended to those who agreed to be on the Advisory Committee:

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Herb Bellamy, Supervisor
Ken Carter, Supervisor
Rene Coronado, Supervisor
Silverio Cuellar, Director
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Special thanks to Judy Spencer of the Planning, Research, and Evaluation staff for her assistance in editing.

i

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

INTRODUCTION

ASSESSMENT MODEL

INTRODUCTION

Emphasis in the Texas State Plan for Adult Education for 1986-88 is on individualized instruction, which is defined in the plan as the process of matching instruction to the individual adult learner's needs through large group, small group, or one-to-one settings. One of the nine specific objectives in the plan addresses the need for individualizing instruction for the least educated adult most in need. A closely related objective in the plan specifies the need to refine assessment services available to adult education students. In order to plan and implement individualized instruction for adult students, an appropriate assessment program needs to be in place.

Assessment is a process, not a test nor series of tests. It is the process of determining whether previously stated goals and objectives have been achieved, and if so, the extent to which they have been achieved. It involves more than designing, administering, and scoring tests. It includes formulating measurable student objectives, planning measurement techniques, selecting or developing instruments, collecting data, interpreting results, and using the results to modify the curriculum, course materials, instructional strategies, or measurements themselves.

Assessment includes tests - commercial and teacher-made, norm-referenced and criterion-referenced; it also includes informal feedback, impressions, and opinions obtained from observations, interviews, or conversations; it is affected by attitudes, experiences, and values of the person making the judgment.

Assessment is an integral part of the learning cycle and is engaged in by both the teacher and student on an ongoing basis. The teacher continuously monitors the pace, content, and style of instruction as well as the student's attitude, response to instruction, and ability to perform as a result of the instruction. In checking for student understanding, the teacher gets immediate feedback to guide in modifying the lesson content or strategy of presentation. At the same time, the student evaluates the teacher, presentation, classroom interaction, and materials. The rate and extent to which the student acquires new information and skills depend on the compatibility of the new learning with his value system, his goals, and what he previously has learned. Much of this ongoing assessment conducted by teachers and students is informal, intuitive, and unplanned.

Although assessment is integral to the learning process and evaluation results are prerequisite to making instructional decisions, teacher attention often is focused on strategies and materials, to the exclusion of assessment matters. Frequently, however, a more clear understanding and directed use of assessment

8

procedures and interpretation facilitate the teacher's selection of materials and strategies to individualize student instruction.

The purpose of this handbook is to provide adult educators with sufficient background in assessment models to ensure confidence in recognizing and/or selecting appropriate measurement techniques and in utilizing evaluative results to individualize and improve instruction for adult students. The handbook presents a comprehensive assessment model for adult education, appropriate techniques for interpreting assessment results and for developing teacher-made assessments, and assessment resources, including tests currently used by adult educators throughout the state.

To clarify terminology, assessment can be used interchangeably with evaluation. Both terms refer to the general process of making value judgments or decisions from data. A measurement is any quantified result of behavior, ability, attitude, or knowledge. It can result from a variety of situations, including standardized tests, observations, or interviews. Documented specifications define and help interpret measurements.

A test is an intrusive procedure used to obtain measurements. Tests are usually standardized (given under prescribed conditions); they can be norm-referenced or criterion-referenced. Norm-referenced tests are those that distribute scores along a normal curve and relate results to a representative group of adults in the norming sample who took the test. Criterion-referenced tests relate specifically to content covered in instruction or text material and are designed to measure mastery of the content. Acceptable levels of mastery on criterion-referenced tests are predetermined.

The term model as used in this handbook refers to a systematic approach to the assessment of adults in a learning environment to determine entry level, ongoing mastery, and achievement or change. A comprehensive assessment model is suggested (see graphic representation on next page).

The model displays the teaching/learning process for a lesson or unit of instruction as an ongoing cycle and shows feedback loops and instructional paths at key decision points. A major decision point occurs when measurements are administered and scored. Results of student assessment lead the teacher into four possible directions. The first three directions, indicated by a lack of mastery on the part of the student, are:

1) Reteaching or providing additional guided practice for students who have not demonstrated mastery - using different approaches and materials than those used in the original presentation;

-2-

9

ASSESSMENT MODEL

TESTING AS A PART OF THE TEACHING/LEARNING PROCESS

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                    ┌─────────────────┐
                    │  Instructional  │
                    │   Objectives    │
                    └─────────────────┘

                    ┌─────────────────┐
                    │    Table of     │
                    │ specifications  │
                    │   (skills and   │
                    │ general content)│
                    └─────────────────┘

                    ┌─────────────────┐
                    │ Select/develop  │
        ┌──────────→│  test items and │←──────────┐
        │           │  instructional  │           │
        │           │    materials    │           │
        │           └─────────────────┘           │
        │                                         │
        │           ┌─────────────────┐           │
        │           │     Pretest     │           │
        │           │(diagnosis, placement)│       │
        │           └─────────────────┘           │
        │                                         │
        │           ┌─────────────────┐           │
        │           │     Teach       │           │
        │           │  lesson/unit    │           │
        │           └─────────────────┘           │
        │                                         │
        │           ┌─────────────────┐           │
        │           │  Administer and │           │
        │           │   score items   │           │
        │           └─────────────────┘           │
        │          ╱                    ╲          │
  ┌──────────────────┐            ┌─────────────────┐
  │   Curriculum/    │            │  Test revision, │
  │instruction revision│          │  item analysis  │
  └──────────────────┘            └─────────────────┘
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If not mastered   If mastered

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┌─────────────────┐
│     Reteach     │
└─────────────────┘
        │
┌─────────────────┐                ┌─────────────────┐
│     Retest      │                │   Enrichment    │
└─────────────────┘                └─────────────────┘

              ┌─────────────────┐
              │  Instructional  │
              │   objectives    │
              │  of new lesson  │
              │    or unit      │
              └─────────────────┘
                      .
                      .
              ┌─────────────────┐
              │    Summative    │
              │   Evaluation    │
              └─────────────────┘
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-3-

2) revision of instruction/curriculum to strengthen specific
   areas in which students failed to demonstrate mastery;

3) revision of measurement techniques based on item analyses
   to discard or modify items or tasks that are inappropriate
   in difficulty level, do not align with the curriculum, or
   do not meet specified criteria.

The fourth direction, indicated by student mastery, calls for
enrichment and reinforcement through independent practice for
students who demonstrate mastery, while students who do not
demonstrate mastery are being retaught and retested, before going
on to higher levels of more complex objectives.

The model indicates an appropriate sequence for integrating
assessment and instruction. Following the development of
instructional objectives and specification tables, the next step in
the teaching/learning process includes the selection or development
of measurement techniques and instructional materials. These
activities are conducted concurrently. Designing measurement
techniques at this point in the process sharpens the intent of the
original objective by focusing attention on expected student
performance and guides the selection of appropriate materials and
strategies that can help students meet the objective.

Assessments in adult education can be grouped into three categories
depending on the purpose and timing of the measurements: pretests
(diagnostic, placement); ongoing (formative, mastery); and
posttests (summative). Included as posttests or summative
evaluation are follow-up efforts to determine longitudinal effects
on students who have exited the program. A given instrument can be
used for pre and post testing, but tests are labeled diagnostic or
summative depending on when they are administered and how they are
scored, interpreted, and used.

As the model shows, assessment is so closely intertwined with
instruction and the learning cycle that it must be considered as
part of the same process. A working model must recognize that the
educational process is concerned with change, that instruction
promotes the change processes, and that assessment guides and
directs instruction. Teaching begins with the student's present
condition (abilities and attitudes), pretests (diagnoses) the
characteristics of this condition, and implements instructional
strategies accordingly. Ongoing assessment of the student guides
continuing instruction for that student. Appropriate
individualized instruction requires accurate information about the
student's current knowledge base, ability level, and attitudinal
state. Based on this analysis, the student is guided through a
customized course of instruction. Summative evaluation
(posttesting) documents the changes that occur in the student and
guides further instruction as well as modifications that need to be
made in the instruction and perhaps in the assessment techniques.

-4-

DEVELOPING MEASURABLE

OBJECTIVES

DEVELOPING INSTRUCTIONAL OBJECTIVES

Most adult educators use teacher-made tests as part of their overall assessment program - whether informal oral checklists or formal paper and pencil instruments. Teachers are committed to the importance and benefits of appropriate measurements in planning, implementing, and evaluating instruction. The large number of teacher-made tests currently being used attests to the need for relevant, readily available, easily scored, meaningful assessments. Teachers need to have pertinent and timely information on students in order to make informed instructional decisions and many are filling perceived gaps in student data with locally developed measurements. This is particularly apparent in ESL and ABE classes.

To assist teachers in constructing appropriate measures for their students, this section presents tips and techniques on writing, selecting, and evaluating measurable objectives.

DEFINING MEASURABLE OBJECTIVES

Instruction and evaluation both start with clear, specific learner based objectives articulated from general, long range goals. In adult education, goal setting occurs jointly between teacher and student; however, the teacher has the major responsibility for initiating goal statements, establishing guidelines, setting priorities, and specifying objectives in measurable terms. Based on specific instructional objectives, the teacher can then select targeted materials, teaching procedures, instructional strategies, and appropriate evaluation techniques.

If a teacher were asked about the instructional objectives of his course and responded: "To teach adult students," or "To cover certain parts of the curriculum or pages in the text", in order to evaluate the effectiveness of the course according to the objectives, the teacher would have to test his teaching or the curriculum materials. However, if he rejected those statements as course objectives and stated instead that the objective of the course is that the students will reach a certain level or achieve certain skills, he is on target in stating learner based outcome objectives. Testing such an objective would focus on student achievement in order to measure program effectiveness.

In the literature there are many terms referring to instructional objectives, such as:

measurable objectives	learner based objectives
behavioral objectives	terminal objectives
performance objectives	enabling objectives

The last two are used together, with terminal objectives referring to end-of-course expectations and enabling objectives referring to process or smaller unit expectations leading to terminal objectives. The terms above are used interchangeably. The various adjectives have been used by educators in their efforts to place additional emphasis on the student and the student's role in the learning process.

Learner based objectives are statements of desired instructional outcomes. They are made up of three components:

1) specification of what a student will be able to do if he masters the objective;
2) specification of the conditions under which the behavior is to be demonstrated; and
3) specification of how well a student is to perform.

1) **What A Student Must Be Able To Do**

The first component of a well stated objective emphasizes measurable, observable behavior. The objective needs to be stated in terms that precisely describe the behavior or action expected. For example, an ABE teacher might have an objective that states,

"The student will know how to write a check."

In those terms, the objective is ambiguous. What exactly does the student have to be able to do to demonstrate mastery of the objective - answer a multiple choice question on the various parts of a check, be able to draw a check and label the parts, discuss the steps involved in writing a check, or to fill in a blank check accurately? In this example, as with most others, the problem is with the verb - "know". It is very difficult to demonstrate "knowledge". It would be better to state,

"The student will be able to write a check for $55.65, made out to cash, using today's date, and fill in all parts of the check accurately."

Evidence of mastery would be a correctly written check.

Other examples of commonly used terms that are ambiguous in objectives because they relate to non-observable behaviors include:

appreciate	grasp the significance of
be aware of	internalize
believe	learn
enjoy	understand

Better terms that do relate to observable or easily definable
behaviors are:

calculate	demonstrate	rephrase
circle	explain	reproduce
combine	fill out	select
compare	formulate	state
contrast	identify	tell
construct	list	translate

In addition to clarifying the performance, behavior, or action
expected, the teacher should concentrate each objective on one well
communicated learning outcome rather than on a combination of
several. The key is to state the learning outcome as broadly as
possible so that it will adequately cover the domain being sampled
and yet be specific enough to allow the teacher to recognize when
the performance has been achieved. If the objective is complex
with multiple parts, testing the objective is very difficult and
the teacher cannot be sure how much of the objective a given
student has mastered. Mastery of enabling objectives or
prerequisite skills do not necessarily provide evidence of mastery
of the learning outcome intended in the objective.

2)   Under What Conditions?

The second component of a well written learner based objective
focuses on the conditions under which the student is expected to
perform the expected behavior. This component refers to the
resources and materials available to the student during instruction
or evaluation of the objective and any limiting time constraints or
physical settings that might impact the student's performance.
Specified conditions can vary greatly the difficulty level of the
objective. For example, if a student in an ESL class is asked to
describe the steps involved in buying certain items from a store,
the specified conditions could make the task very easy or very
difficult. The student could be asked to recall all items from
memory or select them from a list or from his notes; he could be
asked to recall all vocabulary from memory or be allowed to use a
dictionary or to ask the teacher for help as he proceeds; he could
be expected to work alone or with another student or to describe
the steps orally or in writing; he could be limited to items of
clothing only, to items previously discussed in class, or have no
limits set on items selected.

)   To What Extent?

The third component of a well written learner based objective
specifies the criterion or the level of performance expected for
the student. Using the same example above of asking the student to
describe the steps involved in buying certain items, predetermined
criteria might require him to cite at least six steps or to cite at

least 20 items. Setting appropriate criteria or performance standards takes skill and practice. The ideal standard is one that separates masters from non-masters and judges students solely on the basis of their learning and not in relation to their peers. The standard should be attainable given a reasonable amount of time and resources. Perfect performance (or 100%) is not reasonable and usually is not necessary for a student to attain in order to demonstrate mastery of a skill or material learned.

To summarize, three components of a well written learner objective are 1) specified performance, 2) specified conditions, and 3) specified mastery criteria. A further example demonstrates how the addition of the three required components clarifies intent of the objective. The following is an ambiguous objective:

> "The student will appreciate good citizenship."

This objective could be improved by specifying performance, conditions, and mastery criteria as follows:

> "The student will be able to demonstrate his
> understanding of good citizenship by writing
> a well organized paper (performance), between
> 3 and 5 pages (condition), on the topic of
> citizenship, defining the term and contrasting
> good and poor citizenship with at least 2
> examples of each (criterion)."

Objectives Should Focus on the Student

Education is a process of change and significant changes are expected to occur in students as a result of their educational courses. Because the learning cycle is predicated on student change, instructional objectives should be stated in learner based outcome terms rather than in terms of what the teacher will be doing or what the content is to be. For example, the following three objectives refer to the same teaching/content domain, from three different perspectives:

1) "The teacher will teach students how to use correct spelling and punctuation in completing job applications."
2) "Application blanks from several job sites will be obtained for use in the classroom as guided practice for students."
3) "Within two class periods, 90% of students will be able to complete 3 different job applications with 95% accuracy."

All three statements are specific and detailed objectives. The first one focuses on the teacher and what the teacher will be doing. It does not address what the student will be doing or the progress expected of the student. The second one focuses on content. In learner based objectives, content itself is

-8-

meaningless. The important aspect of content is what the student is able to do with it. Subject matter is used to develop intellectual skills in the student and should not become an end in itself. Only the last statement focuses directly on the student and what the student will be able to do as a result of the learning experience. The last objective also includes the condition of an expected time line (within two class periods) and the mastery criterion (90% of students at 95% accuracy) - critical components of appropriately stated objectives The first statement focuses on what the teacher will be doing while the second statement focuses on the content. All statements may be correct, but the focus of the instructional objective must be on the student and the anticipated change, gain, or achievment expected from the student.

To review instructional objectives, they are statements of learning outcomes that can be reasonably expected of students successfully completing a course, program, or unit of instruction. They are statements that reflect measurable capabilities.

Components of a well-stated instructional objective are:

- specified performance, behavior, or task
- specified conditions or circumstances of performance
- specified criterion or level of performance

Instructional objectives focus on:

- student performance rather than teacher performance
- student outcome (terminal behavior) rather than student processes (activities, content, or what the student does during instruction)
- what the student should be able to do under certain specified conditions
- to what extent the student is expected to perform

Objectives Measuring Cognitive Skills

Once the teacher is comfortable in designing learner based instructional objectives that specify performance, conditions, and criteria, he should turn attention to the level of skills being taught and measured in his class. It is important for the teacher to design instructional objectives at several skill levels in order to develop higher thinking skills in students. Many teachers focus their lesson and their tests on recall and memory because these skills are easier to teach and to test. Higher order thinking skills such as analysis, synthesis, and evaluation need to be incorporated into the learning process; and for adult students, application skills are of great priority.

A frequently used framework for outlining a hierarchy of skills and behaviors is Bloom's Taxonomy of Educational Objectives.[1] It provides a handy guideline or checklist for ensuring that the various skill levels are covered both in teaching and in testing. The Cognitive Domain Taxonomy contains categories from simple to complex and from concrete to abstract. The six major categories - knowledge, comprehension, application, analysis, synthesis, and evaluation - are outlined below, along with examples of general instructional objectives and behavioral terms that help define them.

Knowledge is defined as the r(iembering of a wide range of previously learned material from facts to theories and represents the lowest level of learning outcomes in the cognitive domain.

General objectives: Knows common terms
Knows specific facts
Knows methods and procedures
Knows basic concepts
Knows principles

Behavioral terms: Defines, describes, identifies, labels, lists, matches, names, outliner . reproduces, selects, states

Comprehension is defined as the ability to grasp the meaning of material. This may be shown by translating material from one form to another (words to numbers), by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects). These learning outcomes go one step beyond the simple remembering of material, and represent the lowest level of understanding.

General objectives: Understands facts and principles
Interprets verbal material
Interprets charts and graphs
Translates verbal material to math formulas
Estimates future consequences implied in data
Justifies methods and procedures

Behavioral terms: Converts, defends, distinguishes, estimates, explains, extends, generalizes, gi/es examples, infers, paraphrases, predicts, rewrites, summarizes

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[1] B.S.Bloom (Ed.) Taxonomy of Educational Objectives. Handbook I. The Cognitive Domain. New York: David McKay, 1956.

Application refers to the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories. Learning outcomes in this area require a higher level of understanding than those under comprehension.

General objectives: Applies concepts and principles to new situations
Applies laws and theories to practical situations
Solves mathematic problems
Constructs charts and graphs
Demonstrates correct usage of a method or procedure

Behavioral terms: Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses

Analysis refers to the ability to break down material into its component parts so that its organizational structure may be understood. This may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved. Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material.

General objectives: Recognizes unstated assumptions
Recognizes logical fallacies in reasoning
Distinguishes between facts and inferences
Evaluates the relevancy of data
Analyzes the organizational structure of a work (art, music, writing)

Behavioral terms: Breaks down, diagrams, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, points out, relates, selects, separates, subdivides

Synthesis refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech), a plan of operation (research proposal), or a set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns or structures.

General objectives: Writes a well organized theme
Gives a well organized speech
Writes a creative short story, poem, music
Proposes a plan for an experiment
Integrates learning from different areas into a plan for solving a problem
Formulates a new scheme for classifying objects, events, or ideas

-11-

Behavioral terms: Categorizes, combines, compiles, composes,
creates, devises, designs, explains,
generates, modifies, organizes, plans,
rearranges, reconstructs, relates,
reorganizes, revises, rewrites, summarizes,
tells, writes

Evaluation is concerned with the ability to judge the value of
material (statement, novel, poem, research report) for a given
purpose. The judgments are to be based on definite criteria.
These may be internal criteria (organization) or external criteria
(relevance to the purpose) and the student may determine the
criteria or be given them. Learning outcomes in this area are
highest in the cognitive hierarchy because they contain elements of
all of the other categories, plus conscious value judgments based
on clearly defined criteria.

General objectives: Judges the logical consistency of written
material
Judges the adequacy with which conclusions
are supported by data
Judges the value of a work (art, music,
writing) by use of internal criteria
Judges the value of a work (art, music,
writing) by use of external standards of
excellence

Behavioral terms: Appraises, compares, concludes, contrasts,
criticizes, describes, discriminates,
explains, justifies, interprets, relates,
summarizes, supports

The purpose in providing an outline of the Taxonomy is to remind
teachers to include in their lesson planning instructional
objectives at the higher skill levels. By using the abbreviated
general objectives and behavioral terms suggested with the higher
levels, teachers can revise upward many of their existing
objectives. The verbs listed with each category can be used to
state objectives as well as to develop test questions. A later
section of the handbook emphasizes the importance of matching test
levels with instructional levels.

Objectives Measuring Affective Characteristics

Adult educators are genuinely concerned about affective
characteristics of their students. Although none of the teachers
surveyed reported specific measures of student attitudes,
interests, or values, many teachers expressed concerns about
ensuring that their students' motivation level be sustained and
that students not be alienated by placement testing during the
first class session. In sessions attended by the authors
throughout the state, teachers spoke about enhancing students'
self-confidence and positive attitudes about their classes.

Teachers appear to work very hard to maintain positive feelings and attitudes on the part of their students, but these efforts are accomplished in a personal, non-systematic way in adult educa'__n.

Traditionally, instruction and testing have heavily emphasized the cognitive domain. Goals are stated in cognitive terms and students must achieve certain cognitive levels in order to master their courses or to obtain a high school diploma. However, the affective areas are considered important corollaries by most adult educators and should be incorporated in a comprehensive educational program as well as a comprehensive assessment program. If the affective areas are not evaluated, there is no evidence on which to base modifications of strategies that may be impacting student attitudes and feelings of self-concept.

In developing affective objectives, it is useful to review Bloom's Taxonomy, Handbook 2, Affective Domain,[2] which corresponds to the cognitive domain. The Affective Taxonomy arranges objectives along a hierarchy from mere awareness of a phenomenon through attending and responding with feeling to a position of some power and then to control of a person's behavior. Details are outlined below, in a format similar to that of the cognitive domain.

Receiving is the lowest level of learning outcome in the affective domain and refers to the student's willingness to attend to particular phenomena or stimuli (classroom activities, textbooks). From a teaching standpoint, it is concerned with getting, holding, and directing the student's attention. Learning outcomes in this area range from the simple awareness to selective attention on the part of the learner.

    General objectives: Listens attentively
                        Shows awareness of the importance of
                          learning
                        Shows sensitivity to human needs and
                          social problems
                        Accepts differences of race and culture
                        Attends closely to classroom activities
   Behavioral terms: Asks, chooses, describes, follows, gives,
                        holds, identifies, locates, names, points
                        to, selects, sits erect, replies, uses

Responding refers to active participation on the part of the student, not only attending to a particular phenomenon but also reacting to it. Learning outcomes in this area may emphasize acquiescence in responding (reads assigned material), willingness to respond (voluntarily reads beyond assignment), or satisfaction

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[2]Krathwohl, D.R., Bloom, B.S., & Masia, B.B. Taxonomy of Education Objectives: The Classification of Educational Goals, Handbook 2, Affective Domain. New York: McKay, 1964.

in responding (reads for pleasure or enjoyment). Higher levels include "interests" that stress the seeking out and enjoyment of particular activities.

General objectives: Completes assigned homework
Participates in class discussion
Completes work
Volunteers for special tasks
Shows interest in subject
Enjoys helping others

Behavioral terms: Answers, assists, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes

Valuing is concerned with the worth or value a student attaches to a particular object, phenomenon, or behavior, ranging from simple acceptance of a value (desires to improve group skills) to complex commitment (assumes responsibility for the effective functioning of the group). Valuing is based on the internalization of a set of specified values, and clues are expressed in the student's overt behavior. Learning outcomes in this area are concerned with behavior that is consistent and stable enough to make the value clearly identifiable. "Attitudes" and "appreciation" fall into this category.

General objectives: Demonstrates belief in the democratic process
Appreciates good literature, art, music
Appreciates science or other subjects in everyday life
Shows concern for others' welfare
Demonstrates problem-solving attitude
Demonstrates commitment to social improvement

Behavioral terms: Completes, describes, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works

Organization is concerned with bringing together different values, resolving conflicts between them, and beginning to build an internally consistent value system. The emphasis is on comparing, relating, and synthesizing values. Learning outcomes may be concerned with the conceptualization of a value (recognizes the responsibility of each individual for improving human relations) or with the organization of a value system (develops a vocational plan that satisfies his need for economic security and social service) Instructional objectives relating to the development of a philosophy of life.

-14-

22

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General objectives: Recognizes the need for balance between
                    freedom and responsibility in a
                    democracy
                    Recognizes the role of systematic planning
                    in solving problems
                    Accepts responsibility for own behavior
                    Understands and accepts own strengths and
                    limitations
                    Formulates a life plan in harmony with
                    abilities, interests, beliefs
Behavioral terms: Adheres, alters, arranges, combines,
                  compares, completes, defends, explains,
                  generalizes, identifies, integrates,
                  modifies, orders, organizes, prepares,
                  relates, synthesizes
```

Characterization by a Value or Value Complex that has controlled
the individual's behavior long enough for him to have developed a
characteristic "life style". The behavior is pervasive,
consistent, predictable. Learning outcomes cover a broad range of
activities; major emphasis is on the fact that the behavior is
typical of the student. Instructional objectives are concerned
with patterns of adjustment (personal, social, emotional).

```
General objectives: Displays safety consciousness
                    Demonstrates self-reliance in working
                    independently
                    Practices cooperation in group activities
                    Uses objective approach in problem-solving
                    Demonstrates industry, punctuality,
                    self-discipline
                    Maintains good health habits
Behavioral terms: Acts, discriminates, displays, influences,
                  listens, modifies, performs, practices,
                  proposes, qualifies, questions, revises,
                  serves, solves, uses, verifies
```

By glancing at the Taxonomy, teachers can locate some of their
students and begin to differentiate between some of them. For
those teachers who wish to formulate affective objectives, the
Taxonomy should be useful. In a later section on developing test
specifications and test items, specific ways of measuring affective
characteristics of students are presented.

Evaluating Instructional Objectives

Instructional objectives come from many sources. They can be taken
from texts, curriculum guides, and from state or local adult
education plans. They can be generated from staff development
sessions or in planning meetings with program administrators. They
can also emerge from individual teachers planning for individual
students.

There are many opportunities for selecting or developing objectives. Experienced teachers continually revise and try out new objectives with their students. The problem usually is not having to search for objectives, but rather having to narrow down the choices and set priorities.

Most texts and teaching materials include objectives. The task for the teacher is to go through all of the materials and resources available and set priorities, choosing instructional areas and topics which are most needed by a particular group of students. In other words, there are more instructional areas and topics suggested in materials than could reasonably be taught in any one course or several courses. The teacher's judgment is extremely important in matching objectives to students' needs. The teacher is in a continual process of sorting, selecting, and evaluating units, lessons, activities, and materials to make teaching more effective. Even when certain texts and materials are prescribed by a program, there are still many choices to make. It is among a vast array of possible instructional objectives (also materials and activities) that the teacher must factor out those that are most critical and those that are secondary.

To avoid getting bogged down in miniscule behaviors that may not be the most important ones for students to acquire, the teacher should identify the general learning outcome that the learner is to acquire and then list samples of specific types of behavior that would indicate if the general learning has taken place. A general behavior or objective can be broken down into many subskills that students should be able to demonstrate to meet the demands of the general objective.

For example, if a teacher expects a student to "understand" fractions, he must identify specific behaviors that the student can demonstrate to prove that he "understands" fractions. The teacher might specify that the student will:
- mark the fractional part of a set
- write equivalent fractions
- add fractions with like denominators
- locate fractions to correspond to points on a number line
- match a fractional number with the marked part of a figure

One procedure for the teacher to use in prioritizing objectives in a course or unit is similar to a task analysis in lesson planning or a factor analysis in statistics. It consists first of identifying all general learning outcomes or topics that are considered important enough to be included in the course. From those, an outline can be made of topics that are absolutely essential or prerequisite for students to be able to master before they can go on to higher or more complex levels. All remaining topics can be placed in relationship to those chosen as absolutely essential. It is helpful to do this step graphically by drawing lines between topics that closely relate to each other or by

-16-

24

grouping similar topics together. The teacher can becin to see many relationships between topics and get an idea of sequencing (which ones need to be taught first). The "factors" are those topics that are most important to other topics (or have the greatest number of lines drawn to them from other topics). The following example (Figure 1) shows the relationship between proofreading and related skills, indicating that the student needs to develop the related skills before he can master proofreading.

Figure 1
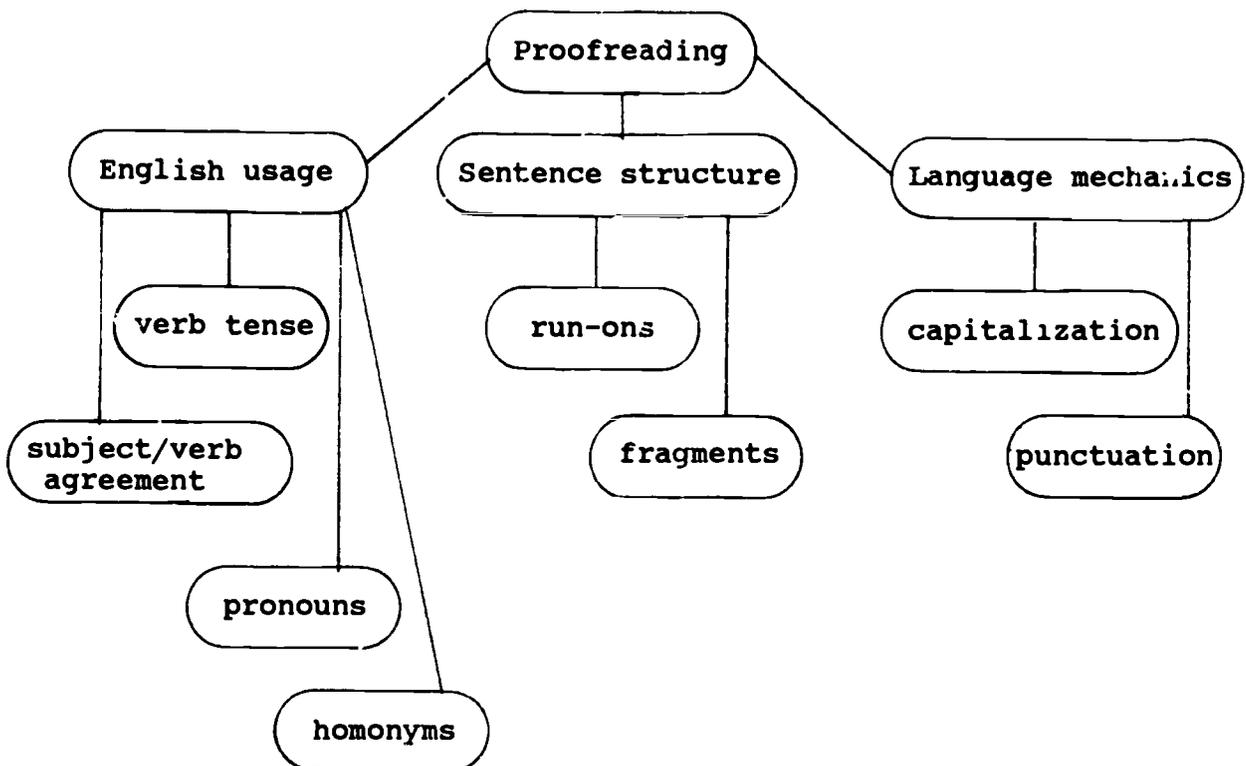
The next step is to ensure that the topics are written as instructional objectives. The task at this point may be as simple as adding to or customizing objectives already written or published to make them appropriate for a given group of students in a given class. The conditions surrounding objectives will be further specified based on how the objectives are to be taught in a particular class and what resources are available. The criteria or levels of performance expected will be elaborated based on ability and entry levels and how the students are to be tested in a particular class. The checklist in Figure 2 can be used as a guideline for evaluating the adequacy of selected objectives.

Figure 2

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┌─────────────────────────────────────────────────────────────┐
│                                                             │
│                 Checklist for Evaluating                    │
│            Learner Based Instructional Objectives           │
│                                                             │
│                                                             │
│   IMPORTANCE - Do the objectives address the most important │
│         skills needed for mastery of the course?  Are there │
│         broader objectives for the course that are more     │
│         important than those that have been written?  Do the│
│         objectives represent genuinely significant skills?   │
│                                                             │
│   SCOPE - Have the skills and content that are to be taught │
│         been sufficiently covered in the objectives?  Are   │
│         the objectives sufficiently broad in focus to subsume a│
│         number of lesser skills?  Do more objectives need to be│
│         added in order to sufficiently cover the field?     │
│                                                             │
│   SAMPLING - Do the enabling objectives lead to the terminal│
│         behavior that is being sought?  If the student      │
│         accomplishes all of the lesser skills (or enabling  │
│         objectives), will he have achieved the main learner │
│         objectives?                                         │
│                                                             │
│   SEQUENCE - Do the enabling objectives lead to the terminal│
│         behavior?  Are they in the right sequence?  Do they │
│         form steps that lead to the terminal behavior?      │
│                                                             │
│   WEIGHT - Have the appropriate criteria or levels of acceptable│
│         performance been assigned to each objective?  Have the│
│         prerequisite objectives been determined, in terms of│
│         which ones must be acquired before the student is   │
│         able to go on to higher order or more complex skills?│
│         Has it been determined which skills require 100% mastery│
│         and which ones only require 70% mastery?            │
│                                                             │
└─────────────────────────────────────────────────────────────┘
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DEVELOPING TEST SPECIFICATIONS AND ITEMS

DEVELOPING TEST SPECIFICATIONS AND ITEMS

Developing test items closely parallels the development of instructional objectives. Testing and instruction both start with well written, specific learner based objectives. Some teachers think of testing and evaluation as end-of-unit or end-of-course activities and put off designing and producing tests until just before they are to be administered. As a matter of fact, as indicated in the Assessment Model, measurement specifications should be written into instructional objectives as the objectives are being developed in the first place.

In an earlier example of students learning to complete job applications, the measurement specification is an inherent part of the objective. Ninety percent of the students are expected to master 95% of the task of accurately completing at least three job applications. Objectives can be tested in several ways and testing techniques should be planned for each objective at the time they are written. For example, mastery of the task of completing job applications could be determined by observing students filling in the applications and documenting their accuracy level. Other ways to measure students' ability to complete the forms include oral or written questions designed to measure knowledge about job applications, their parts, their uses, and the best way to complete them. Questions could be administered as a quick check for understanding during the lesson, immediately following the lesson during the same class period, as a review during the next class period, or later as part of a more comprehensive mastery test at the end of the unit.

As teachers write or adopt instructional objectives, consideration should be given to how student outcomes will be measured. Designing measurement specifications at the same time as course objectives are developed will result in more clearly understood and measurable learner based objectives and help ensure that test questions match objectives in skill level, method of presentation, content, and emphasis given by the teacher.

TESTING THE COGNITIVE DOMAIN

Bloom's Taxonomy is useful as a guide in developing test objectives as well as in writing instructional objectives. In testing the cognitive domain, frequently the lower levels of knowledge and comprehension are emphasized in tests while the higher levels of application, analysis, synthesis, and evaluation are deemphasized simply because it is easier to write questions of recall and memory and more difficult to develop questions at the higher skill levels. The level of questions on a test should match the skill levels addressed in the instructional objectives. Care should be taken to write items that test students in the same way in which the content

was taught and to test various content areas in a representative manner, by ensuring that the number of questions on a test in any one area is in the correct proportion to the emphasis placed on the area during instruction.

Specification Tables

A useful way to build test items and ensure that they match curriculum and instruction is to construct a table of specifications which presents the course objectives in a two-dimensional matrix. Prior to this step, the teacher has developed general course objectives. At this point, he needs to break the general objectives down into a content component and a behavior component. The content component includes the subject matter covered in the unit or course. In addition to text material, content can include newspaper articles, magazines, television shows, field trips, movies, or oral discussions. The behavior component describes what the student is expected to do with the content - the skill he is acquiring.

On the matrix (see Figure 3), major behaviors are listed across one axis and major content areas are specified along the other.

Figure 3

Specification Table for the Cognitive Domain

CONTENT AREAS	THE STUDENT WILL BE ABLE TO:					
	Extract details to answer who, what, where, when	Analyze feelings, traits, motives	Identify main idea, author's purpose	Draw conclusions cause and effect	Differentiate fact/opinion reality/fantasy	Total
Teacher read poem						
Student read passage						
Newspaper articles						
Letters						
Total						

-20-

29

The intersection of each behavior with each content area is a cell that represents the instructional objective - behavior X content. In developing test items (and also in designing instruction), several cells in the matrix may be empty, indicating that there is not an objective developed for that behavior with that particular content area or that the objective is not to be tested.

The next step in constructing a test from a specification table is to determine which of the major behavior/content areas (cells) should be sampled for a particular test. In daily monitoring, the teacher checks out each cell thoroughly. For unit or mastery tests, the teacher includes items from each cell in which there is an objective. However, for end-of-course tests or exams, the teacher samples from cells in the matrix in order to have a comprehensive test of reasonable length.

The next step is to determine the total number of items to be included on the test and place that number in the bottom right hand cell, indicating the total of both column and row. (See Figure 4 for the completed matrix, based on 50 questions.) Column totals for all student behaviors that are to be tested are completed and then row totals for the content areas are filled in. The number of

Figure 4

Completed Specification Table (Cognitive Domain)

CONTENT AREAS	THE STUDENT WILL BE ABLE TO:					
	Extract details to answer who, what, where, when	Analyze feelings, traits, motives	Identify main idea, author's purpose	Draw conclusions cause and effect	Differentiate fact/opinion reality/fantasy	Total
Teacher read poem			5		2	7
Student read passage		6	12	6	3	27
Newspaper articles	3	2		6		11
Letters	2		3			5
Total	5	8	20	12	5	50

-21-

questions for each individual cell is then distributed. Values or weights are assigned to each cell depending on the emphasis in class on that area and its importance in the overall program.

Totals placed in the columns indicate the weight given each of the student behaviors. In the example, the greatest amount of weight is placed on "Identify the main idea and author's purpose"; therefore, the largest number of questions is from this category. The next most important category in this example is "Draw conclusions, cause and effect"; therefore, that category has the second largest number of questions. It would be easy to distribute the 50 questions evenly over the five categories, having 10 questions from each one, but that would not necessarily represent the instructional priority given to each area during class.

Totals are filled in the content rows, based on the priority given each of those areas. Finally, numbers are distributed throughout the individual cells. In the example, the largest number of questions comes from student read passages and the smallest number from letters.

WRITING AND SCORING TEST ITEMS

Developing good test items is a skill that increases with experience through trial and error. Teachers continually improve their tests just as they improve their instruction and curriculum, based on student progress. Many teachers develop item banks of test questions and share them with other teachers. One advantage of an item bank is that items can be improved by the critique of peers. Also an item bank allows teachers to use alternate forms of tests and to draw out of the bank items that are particularly appropriate for a given class.

In writing items, teachers should be fair with students and avoid using tricky questions. Students should know from the beginning of the course how they will be assessed. The criterion or level of performance is built into the instructional objectives and students should be told how that level of performance will be measured and the type of testing that will occur; e.g. informal observations, checklists, or tests with multiple-choice, fill-in-the-blank, matching, or essay items.

One of the most important characteristics of a good test item is that it matches the objective - in terms of skill level represented in the objective and in terms of measuring the skill in the same way that the skill was taught. To determine whether a test item is suitable for assessing the achievement of an objective, the performance and conditions of the test item are matched with those of the objective. A suitable item is one that asks the student to do what the objective expects him to be able to do, one that asks him to do it under the conditions described by the objective. A

suitable item, in other words, matches the objective in performance and condition.

Two common ways in which an item that appears to match an objective in performance and conditions may be inappropriate are:
1) the item asks for the performance under more (or less) stringent conditions
2) the item asks for more (or less) skills than called for in the objective.

In the following example, four test questions are suggested to measure the objective; however, only one measures the objective as stated.

Objective: "The student will be able to construct a rectangle of any given dimension, accurate to within 2 cm."
Test items: a. "Define rectangle."
b. "From the figures shown, select the one that is a rectangle by filling in the appropriate letter on your answer sheet."
c. "Construct a rectangle whose sides are 6 cm. and 8 cm., accurate to within 2 cm."
d. "Describe the difference between a rectangle, a square, and a parallelogram."

Test item "c." is the only one that matches the objective. The objective asks the student to construct a rectangle and so does the test item. Both the objective and test item contain the same performance (construct) and criterion (within 2 cm.). Item "a." calls for a different performance - define. Perhaps the student should be able to define a rectangle as well as construct one, and defining a rectangle may be subsumed in the objective; in that case, the test item is at too low a level in merely asking for a definition. Item "b." calls for a different performance than does the objective and focuses on a lower skill level - that of recognition. Finally, item "d." asks the student to describe - a different performance than required in objective.

Teachers must be sure that test items are simple, direct, and within the students' ability level. Asking some students to write an essay or read a complex paragraph would be difficult and inappropriate unless the teacher is testing for writing skills or reading comprehension. Otherwise, incorrect results might obscure the reason the student missed the question and the teacher would not know if an incorrect response resulted from a lack of knowledge of the concept or rather from a lack of ability to read and understand the question or to write the answer in a correct form. That is not to say that items should be at low skill levels. On the contrary, test items should match the skill level called for in the objective. Items should be simple and direct but not trivial. It may be tempting to ask about dates, names, and facts; but most

-23-

educators agree that simple recall and recognition are not the most important aspects to measure.

There are two types of short answer items: free choice and fixed choice. Both types have predetermined correct answers:
  1) free choice (student is not given choices to select)
      a. unstructured short answer
      b. completion/fill in
  2) fixed choice (student is given the choice to select)
      a. true-false
      b. other two-choice
      c. matching
      d. multiple-choice

Unstructured Short Answer

This type of question works best for measurement of recall of knowledge, as in math, science, or history. Quest'ons can be answered with a word, phrase, or number.

  Sample: "Who was the 13th president of the United States?"

It is easy to write because alternate answers are not needed. Scoring can be difficult because several responses may resemble the correct one to a degree and the teacher must decide how much deviance can be tolerated in an "almost correct" response. For example,

  "What chemical helps prevent tooth decay?"

may elicit the following responses:

  "flourine, flouride, sodium flouride, and stannous flouride".

The teacher should develop scoring criteria for each item - before the test. If more incorrect responses are given by students, or if most of the incorrect responses represent only one incorrect alternative, the test item should be analyzed for ambiguity or misleading clues.

Completion/fill-in

This type of question should be used to measure simple factual recall rather than complex thinking processes. It measures the acquisition of specific knowledge and requires students to fill in or complete sentences from which a word or phrase has been omitted.

  Sample: "The name of the man who was elected president of the United States in 1984 was _____."

Writing completion/fill-in items is slightly more difficult than writing unstructured short answer items because the wording is critical. The item must give sufficient clues to be clear and unambiguous but not give too strong a clue nor too many clues to give away the answer. The key is to keep a balance between leaving out so much that the item becomes ambiguous and leaving out so little that the item becomes too easy. Sometimes, these items are constrained by their own grammar, such as verb tenses and the use of "a" and "an" leading into the response.

In the example, if the item reads, "The man who was elected president of the United States in 1984 was _____," answers could be: "a Californian," "an actor," "a governor," and all are correct. By adding, "The name of the man..." to the item stem, the only correct answer is "Ronald Reagan" or "Reagan". The teacher still must decide if he will accept "Regan" or "Donald Reagan".

Completion/fill-in items should have a single correct answer, preferably a word or short phrase. They should not contain more than two blanks in any one statement - one is better. Finally, all blanks used in the statements should be of uniform size to avoid clues as to length of word or phrase.

In scoring completion/fill-in items, teachers should determine ahead of time which answers will be accepted. As long as students are allowed to fill in open-ended questions, there will be variations of the one correct response teachers had planned.

True-false

True-false (or yes-no; right-wrong) items can be used effectively to measure recognition of knowledge. For these items the student does not have to recall information as he does in free choice items.

> Sample: "Thomas Jefferson was the 3rd president of the United
> States."   T   F   (circle the correct letter)

True-false items are easy to write because of their simplicity; they can be answered quickly by students; and they can be scored in a standard manner. One difficulty in writing true-false questions is the significant amount of ambiguity that may be contained in them. For example, in the question: "Early in his career, Will Rogers said, 'I never met a man I didn't like,'" the student has to decide 1) Did Will Rogers make the statement or did someone else? 2) Has the statement been altered slightly from the way it was originally spoken? and 3) Did he say it early in his career? Other difficulties with true-false items include the problem of guessing (with a 50/50 chance for the student to be right) and the problem of making the statement absolutely true or false.

In writing true-false items, the teacher should include only a single major point in each item and avoid using absolute terms, such as "always" and "never". Students learn that these terms are used to make an item false. A helpful practice in writing true-false items is to write only true items and then turn half of them around to make them false. This helps ensure uniformity of form and structure and produces a test with half of the items true and half false (thus minimizing the effect of guessing). Items should be placed in random order to avoid a guessing pattern.

Other two-choice

Other two-choice items usually ask students to apply classifications to a set of choices. They can add variation to a test format and work well with factual knowledge.

      Sample: "Circle the words that could be used as verbs."
              a. beginning   e. flew
              b. end   f. flue
              c. wrist   g. kit
              d. wrest   h. knit

The stimulus words should be spread out on the page with a space in between, unlike the example above, so that when students draw a circle around one word, it will not also encircle the word next to it, causing confusion in scoring. These items are susceptible to guessing, as are true-false items.

Matching

Matching items generally are used to measure recognition of knowledge or comprehension and are used to determine if a student can distinguish between similar ideas or facts. In matching items, the student is presented with multiple questions or stems and multiple responses at the same time.

      Sample: "Match the correct computer term to the definition."
              1) Cursor   _____ Command computer to begin
              2) Load   _____ Command to copy from a disk
              3) Run   _____ Command to store current data
              4) Save

These items can condense a large amount of content into a short space and can be scored easily, using standard criteria. However, they take considerable time to write because all of the pieces must fit together.

In writing matching items, teachers should make the stems and responses homogeneous. All terms in each item should focus on a single topic or theme and deal with common elements of a single category. The two columns, of stems and responses, should be

-26-

unequal to prevent students from using the process of elimination to narrow down answer choices. Plausible incorrect choices should be used in order to accurately test the student's knowledge.

Multiple-choice

Multiple-choice items can be used to test knowledge and comprehension but also higher levels of thinking skills. They provide broad coverage of the content area. They are widely used, particularly in standardized tests, because they lend themselves to item analysis and can be revised and improved rather easily. Teachers should use them frequently in their classrooms in order to provide students practice in the testing format.

> Sample: "Which of the following territories was bought by the
>   United States from Spain?"
>   a) Texas
>   b) Florida
>   c) New Mexico
>   d) Mexico

Multiple-choice items can be quickly and easily scored. The difficulty is in writing them in the first place. The teacher must make certain that the items test important course objectives and not just those that lend themselves to testing and that the items are written at the appropriate skill level. Incorrect alternatives, distracters, should be plausibly related to the problem. They must seem possible to students who do not know the answer, yet distinctly different from the correct answer. They generally are designed from errors that students are likely to make if they have incorrect knowledge. In the example, Florida is the corect answer but Texas, Mexico, and New Mexico are plausible distracters since they are associated with Spanish culture and language. A great deal of diagnostic information about the student to be used in reteaching can be gained from incorrect answer selections.

In writing multiple-choice questions, all answer choices should be consistent in length and complexity. Sometimes there is a tendency to make the correct answer choice longer by giving more details, but that practice gives away clues to the right choice. Correct answer choices should be varied as to their position so that the correct choice is not more frequently "d" or "e" than any other position. Students catch on to patterns in which their teachers tend to write.

Because students will face negative questions on standardized tests, such as "not" or "except", teachers should give their students practice in this format. For example,

-27-

"All of the following are standard scores EXCEPT:"
  a) scale score
  b) raw score
  c) percentile
  d) stanine
  e) NCE

Essay

Essay items are useful for measuring higher order thinking skills, students' ability to organize and summarize information, and their skill in applying concepts in new situations. Essay questions allow the teacher to assess students' expression and creativity as well as their depth and scope of knowledge. Essay items are relatively easy to write, although the teacher needs to be cautious about covering too great a scope of material in any one question.

The major difficulty in essay questions is in the scoring because of the time involved and the necessity to develop scoring criteria. To facilitate the scoring process, teachers should develop a key, a sample response for the essay question that contains all of the critical points that constitute an acceptable answer, and have the key evaluated by a colleague. Teachers should read all responses to a particular essay question from all students before reading responses to a second question from any one student. Rereading each response after all of them have been read once allows the teacher to place each essay in perspective. Possibly the scoring criteria will be altered after the first reading of all essays. An additional tip for teachers is to keep the responses anonymous until grades are assigned so as not to be influenced by the knowledge of a student's past performance.

The essay should be scored holistically, i.e., judged on overall content accuracy, organization of thoughts, and logical sequence of presentation. A critical factor to evaluate is whether or not the student addressed the specific question or essay prompt. Writing mechanics may be scored separately if such score is needed. Students may exchange papers and correct each other's responses. This activity will provide practice in developing proofreading skills.

In addition to the item types mentioned, other effective measurement techniques are: interviews, open-ended questions, closed-item questionnaires, observations, checklists, semantic differentials, and Likert scales. Although these techniques may be used for testing the cognitive domain, they are particularly well suited for affective assessments.

TESTING THE AFFECTIVE DOMAIN

Specification tables can be designed for the affective domain also. For example, if a teacher targets voluntary participation in class, increased use of oral language in English, showing concern for others, and working independently as evidence of positive attitude toward school and targets four instructional areas as means of behavior improvement, he might design the matrix in Figure 5. In the marked cells, pre and post measurements can be administered to demonstrate gain in the selected behaviors.

Figure 5

Specification Table for the Affective Domain

Classroom Activities	THE STUDENT WILL DEMONSTRATE:			
	Sharing time (problems during week)	Journal writing	Math assignment	Lesson on oral language skills
Voluntary participation	X	X	X	X
Increased oral language (English)	X			X
Shows a concern for others	X			
Works independently		X	X	

In devising affective instruments to help evaluate a course or the curriculum. group data is sufficient and individual identification .s not required. In such case, anonymity can be guaranteed of ,cudents when they are asked to complete surveys, questionnaires, or other forms. Perhaps they will answer questions honestly if their names are not attached. However, if it is important to get individual data for conferencing or guidance purposes, then teachers need identities and can assure their students that their performance will not be graded nor criticized in any way in order to gain their confidence and openness.

-29-

38

Several types of instruments already reviewed are appropriate for affective assessments, partic.larly short answers and essays. Additional techniques frequently used to measure the affective domain are the interview, open-ended questions, closed-item questionnaires, observations, checklist, the semantic diffential, and Likert scales.

The Interview Schedule

Interviews are held face to face and may involve a structured schedule of predetermined questions or an unstructured outline of questions. In the structured interview, the sequence and wording of questions are fixed and the only deviations allowed from the printed schedule are interviewer clarification of the questions and probing to get complete answers. Advantages of a structured schedule are that it is easy to "score" or summarize and it provides a standardized setting where responses to common questions are produced.

In the unstructured interview, a few key questions are outlined and must be asked, but there is a great deal of freedom to respond spontaneously and to move in divergent directions. The advantage of the unstructured interview is that the interviewer can probe more deeply to gain greater knowledge about the respondent and perhaps discover important facts, opinions, or feelings that might not have been considered in developing questions on a structured interview schedule. The disadvantage of the unstructured interview is that it is more difficult to summarize and to compare results with other respondents.

Open-ended Questions

This technique calls for the respondent to write a short statement to complete a stem; for example, "I wish that I could..." or "When I receive my high school diploma, I will be able to..." The advantage of this technique is similar to the unstructured interview. It allows freedom of expression and spontaneity and may provide valuable responses in areas that had not been considered in writing closed-item questionnaires. The disadvantage is in summarizing data which may be difficult to read and to compare with other respondents. In developing open-ended questions or unstructured interview schedules, teachers should take care not to ask questions that can be answered with simple "Yes" or "No" answers. The goal of these techniques is to elicit complete responses. Questions that ask "Why?" or "How?" tend to be more effective in producing responses.

-30-

Closed-Item Questionnaire

This technique includes rating scales, ranking devices, and various inventories. These instruments can be written to cover a wide range of behaviors and attitudes. They are easily scored or summarized and results can be compared across respondents and across time for the same respondent.

Observations

Teachers observe their students on a daily basis, but much of the time observations are unstructured and unsystematic in that no particular criteria are established to guide them and inadequate or no records are maintained to document what was seen. In adult education, observations are effective tools to monitor student progress and to note when tasks are achieved and whether or not they are achieved at the expected level. The key is to outline the particular behaviors or attitudes of focus and to check off and document when they occur. The teacher should not attempt to observe all students at the same time, rather to focus on two or three at a time.

Checklists

Checklists are very useful tools in the classroom because they are short, quick, and can be adapted to a multitude of purposes. They can be used to document many activities and behaviors in a concise manner and they can be used in conjunction with observations to help document what is observed. They can be used by students and teachers to track mastery of objectives and demonstration of targeted attitudes or behaviors and they can be summarized easily.

Semantic Differential

Developed by Osgood, this technique is effective in measuring students' attitudes toward a particular concept which is rated with a series of bipolar adjective pairs related to the concept. The respondent checks the scale value along the adjective continuum corresponding with his attitude toward the concept. Examples of adjective pairs which can be used to measure attitude are: "good-bad," "beautiful-ugly," "clean-dirty," and "valuable-worthless." Using this instrument, the teacher can determine attitude differences between concepts or individuals.

Osgood, C., Suci, G., & Tannenbaum, P. The Measurement of Meaning. Urbana, Ill.: University of Illinois Press, 1967.

This technique can be used as pre and post measures to demonstrate changes in attitudes, feelings, or opinions over time.

The format of the semantic diffential is:

```
                       ABE
     good :___:___:___:___:___: bad
     ugly :___:___:___:___:___: beautiful
    clean :___:___:___:___:___: dirty
worthless :___:___:___:___:___: valuable
```

Likert Scales

Likert Scales are also effective in measuring student attitudes. They consist of a set of statements that students are asked to respond to by indicating the extent to which they either agree or disagree with the item. There are usually three or five points on the scale to indicate the degree to which the respondent agrees or disagrees. The responses can be used to infer the attitudes students have toward certain concepts. This technique can be used as a pre and post measurement to show evidence of change over time.

The format of the scales is:

	strongly agree	agree	unsure	disagree	strongly disagree
Question 1	-----	-----	-----	-----	-----
Question 2	-----	-----	-----	-----	-----

-32-

COMPUTING SOME BASIC TEST STATISTICS

There are certain basic statistical techniques that are useful to the adult education teacher who develops tests. Suppose a teacher administers a 50 item teacher-made test to a class of 25 students. After the tests are graded, each student is given a raw score which is the total number of items answered correctly. In this example, the raw scores in the class are as follows:

```
23   34   35   45   18
37   25   47   36   35
37   23   42   38   23
43   44   20   37   38
40   30   42   28   37
```

Because the raw score depends so much on the number and difficulty of the test items, it cannot really be used in test interpretation. It is easier to work with these scores if they are organized in a frequency distribution. Once the scores have been arranged that way, typical test statistics such as the mean, median, and percentile ranks can be calculated.

To begin, the highest and lowest scores are determined. The lowest is subtracted from the highest to obtain the range of scores in the class. In the example, scores range from a high of 47 to a low of 18. The range of scores is 29 (47 minus 18).

To group the scores into a frequency table, an interval size is determined which will allow the scores to be placed into a convenient number of groups for analysis. It is generally advisable to have 10-12 groups. Since the example scores have a range of 29, that number (29) is divided by 10 (for 10 groups) to obtain a convenient interval size for the class scores, i.e., 3. The score intervals for the sample data would be ranked as follows:

Score Group
    45-47
    42-44
    39-41
    36-38
    33-35
    30-32
    27-29
    24-26
    21-23
    18-20

The number of scores falling into each interval should be tallied. This provides the frequency distribution of the scores on the test.

Score Groups	Frequency
45-47	2
42-44	4
39-41	1
36-38	7
33-35	3
30-32	1
27-29	1
24-26	1
21-23	3
18-20	2
	25

The largest number of responses occurred in the 36-38 interval. This is referred to as the _mode_ (a measure of central tendency that indicates the score with the largest response). Seven scores fell in that interval or 28% (7 divided by 25).

The _median_ is the central point in the distribution of scores. The frequency table shows that the median score of the class is 36.5. There are 12.5 scores above it and 12.5 scores below it (25 total scores divided by 2). The median should be used as the measure of centre. tendency when there are scores at either the high or the low extremes.

The _mean_ is another measure of central tendency that is easier to compute than the median. It is the "average" score of the class. The mean of the 25 scores is 34. (All 25 scores added together equals 857, divided by 25 total scores equals 34.3).

Based on calculations using the raw scores, the teacher knows that on this test of 50 items, the mean score is 34, that half the students scored above 36.5 and half scored below 36.5, and that the scores ranged from a low of 18 to a high of 47.

Publishers often print percentile ranks and percent correct when reporting scores on tests. Percentile ranks can also be calculated on teacher-made tests or on those tests where percentile ranks are not available. Percentile ranks are commonly used to show how each student's test performance is related to the performance of the rest of the group or class.

Using the frequency table above, another column can be added showing the cumulative frequency for each score group. (Cumulative frequency is obtained by adding the frequencies, starting at the lowest scoring group, to the next higher score.)

Score Group	Frequency	Cum. Freq.
45-47	2	25
42-44	4	23
39-41	1	19
36-38	7	18
33-35	3	11
30-32	1	8
27-29	1	7
24-26	1	6
21-23	3	5
18-20	2	2

For each score group, one-half the frequency of that group can be found by adding it to the cumulative frequency of the score group just below it, dividing by the total number of scores, and multiplying by 100. For score group 45-47, one-half the frequency is 1; add 1 to the cumulative frequency of the score group just below it (24), then divide 24 by the total number of scores (25). The result is 0.96 which, when multiplied by 100, gives a percentile rank of 96. This could be done for the whole class to find where each student is placed in the class.

Score Group	Frequency	Cum. Freq.	Percentile Rank
45-47	2	25	99
42-44	4	23	96
39-41	1	19	74
36-38	7	18	58
33-35	3	11	38
30-32	1	8	30
27-29	1	7	26
24-26	1	6	22
21-23	3	5	14
18-20	2	2	1

The student who received a raw score of 35 on the test has a percentile rank of 38. This indicates that 38 percent of the class scored lower than that student. The student who scored 44 scored higher than 96 percent of the students in the class.

Because tests are used to measure student progress in acquiring certain knowledge or skills, the same test or a parallel form of the test should be administered before and after instruction to look specifically for gain in the average mean score of the class and for gain in the percentile ranking of each student.

Percents are also used to show the percentage of items the student answered correctly on the test. The student who received a raw score of 37 answered 74% of the items correctly (37 divided by 50).

Standardized achievement tests are designed to discriminate between students and spread scores over the normal curve, with most of the scores appearing in the midrange, around the 50th percentile. In

selecting appropriate levels of standardized achievement tests for a class, levels should be chosen to spread students' scores so that small gains can be detected. If most scores fall around the 90th percentile range, the test is too easy and not providing sufficient detailed information. Similarly, scores fall at the lower extreme, the test is too difficult.

Teacher-made tests usually are mastery tests and students are expected to attain a criterion level set by the teacher - generally around 70%. It is expected that students will respond correctly to at least 70% of the items to demonstrate mastery of that area before going on to the next higher or more complex area. If mastery is not attained, the teacher analyzes the instruction that was given as well as the difficulty level of the test. Not all students will attain mastery on a given test. Those students who do not master the test will be retaught and given additional guided practice while those students who do demonstrate mastery are provided with enrichment activities. The teacher needs to determine the number (or percent) of students in the class who should achieve mastery before moving the entire class into the next lesson.

Item analyses should be conducted for teacher-made tests, to analyze the test and to get diagnostic information on students. An item is usually an individual problem or question on a test. Item analysis is analyzing each question to determine its difficulty value and its discriminatory value, i.e., whether it shows a difference between high-ability and low-ability students. To determine the difficulty of an item, the proportion of students answering the item correctly should be computed for an index of item difficulty. For instance, if 18 of the 25 students correctly answer a given question, then the item difficulty should be 0.72 or 72% (18 divided by 25 students).

For standardized achievement tests, the average of the difficulty percentages of the items is about 50%. Teacher-made mastery tests have a lower difficulty level because most students are expected to answer most of the items correctly (around 70%). That figure represents an overall average. Some items should be relatively easy while others should be more difficult in order to motivate the lower level student and to challenge the higher level student.

It is a good practice for teachers to discuss results of teacher-made tests in class, item by item, to analyze why the students gave wrong responses to the items. The teacher can then anticipate trouble questions, those which might be discriminatory, and have tentative solutions (other test items) ready.

Correlation is a technique used to demonstrate item consistency within a test as well as the relationship of test scores on two test administrations or on two different tests. Correlation is the extent of relationship between two sets of scores and is used as a measure of reliability and validity. Reliability is the tendency for scores on the same measure to be consistent; validity is the relationship between two separate measures.

If the test is reliable there is a strong tendency for the students who obtained a high score on the first test to obtain a high score on the second test also and for students who obtained low scores on the first administration to obtain low scores on the second administration as well. Correlation is concerned only with the relative position of each score in its own series.

Using the rank difference formula to compute correlations is appropriate for small groups such as classes. The example is based on scores for seven students on two tests.

Scores		Ranks		Difference	
Test 1	Test 2	Test 1	Test 2	of ranks	Squares
		(X)	(Y)	(X-Y)	(X-Y)²
95	95	1	2	1	1
92	94	2	3	1	1
90	96	3	1	-2	4
88	87	4	6	2	4
85	89	5	4	-1	1
82	88	6	5	-1	1
80	82	7	7	0	0
					12

The formula is $R = 1.00 - \dfrac{6 \sum (X-Y)^2}{n(n^2-1)}$

where
$$R = \text{Correlation coefficient}$$
$$\sum (X-Y)^2 = \text{Sum of the Squares of Differences}$$
$$n = \text{Number of cases (students)}$$

Given the scores on two tests, students' ranks are computed by seeing where they fall in relation to each other, separately on each set of scores. The difference between the ranks is computed and placed in the colurn (X-Y). The (X-Y) column is squared and the sum of the squares in placed in the formula, so that

$$R = 1.00 - \frac{6(12)}{7(48)} = .79$$

The correlation between the two sets of scores is .79, which is considered to be a high correlation or a strong relationship.

INTERPRETING

AND

USING

ASSESSMENTS

Interpreting and using assessment results is the process through which teachers determine their students' strengths and weaknesses in order to plan and put into place individualized instruction. It is a multi-step process that begins with a self-assessment of resources (teacher skills, materials, and support) and a preassessment of student abilities and attitudes. Some teachers who complete this initial assessment stop at that point; others go to the next step - of interpreting results - and stop at that point. Few teachers complete the process of actually using results to feed back into the instructional process and make modifications in strategies or materials based on what they found in the test results.

TEST INTERPRETATION

Interpretation of test scores requires a basic understanding of several important concepts including norm-referenced tests, criterion-referenced tests, types of scores yielded, standardization, validity, and reliability. To use test results in instruction, it is necessary to know what the various subtests measure. This section presents concepts of test interpretation, ways to interpret test scores, what various subtests measure, and suggested instructional techniques for each subtest area.

Commonly Used Test Scores

Scores commonly used in adult education programs include the following:

> Raw scores are the number of items answered correctly. By themselves, they are not meaningful because the number of items varies across subtests. (They are used to derive standard scores.)

> Scale scores are statistical conversions of raw scores that form an equal interval scale; therefore, they can be used in arithmetic calculations. They range from 0 to 999 within any one subtest and they accumulate across the entire range of grades levels tested, e.g., from kindergarten through 12th grade. Scale scores can be compared for different groups of students on any one subtest and across testing periods on any one subtest area. They cannot be used to compare two or more subtests.

Percentiles show the approximate percent of students who scored lower than a given raw score. If a student scores at the 65th percentile, he has obtained a raw score below which raw scores of 65 percent of other students who took the test in the norm group fall. Frequently on graphic representations, percentile bands are displayed around an obtained percentile to indicate the degree of confidence that the obtained score is the true score. These confidence bands are based on the standard error of measurement.

Normal Curve Equivalents (NCEs) are related to percentiles but are distributed over the normal curve in equal intervals which allow arithmetic calculations to be performed, such as obtaining the group mean. NCEs appear in some program reports to show gain or loss but have limited use for classroom teachers.

Stanines are related to percentiles and show the number of standard deviations above or below the mean a given raw score falls. Stanines are often reported to students because they incorporate a wider range of scores than do percentile bands and prevent students from focusing on precise differences between subtests or between students.

Grade-equivalent scores attempt to show the grade level in years and months that typically corresponds to a given raw score. They are easily misinterpreted, particularly in adult programs. Grade-equivalent scores are derived from the typical performance of elementary and secondary students who have taken the same test. A grade equivalent of 6.5 for an adult does not mean that the adult is performing at the sixth grade, fifth month level nor that it might take five or six years before he is likely to finish high school. The score indicates that the typical student at grade 6.5 achieved the same raw score as that of the adult taking the test. Adults learn more quickly and in different ways than children and would be expected to achieve 12th grade level much sooner than sixth grade students.

Standard Error of Measurement (SEM) provides a range within which an examinee's true score is likely to fall. The magnitude of the SEM varies from test to test and according to where on the scale a score falls.

Standardization

Standardization refers to the norming procedures used by test writers to ensure that the norms used to interpret scores are truly representative of the population the test is supposed to sample. Most standardized achievement tests are normed on a national sample and seek to incorporate all demographic variables that might impact

test results such as ethnicity, sex, geographic area, rural-urban, income level, and public-nonpublic.

Standardization also refers to uniform procedures practiced by those who administer and score tests - whether they are publisher-developed or teacher-developed. Valid interpretation of test scores depends on uniform procedures being implemented at every step in the testing process. Test instruments need to be secured at all times when not being used. Instructions given to one student or class need to be identical to those given to other students or classes. Physical conditions (light, ventilation, space) should be the same and for timed tests, timing needs to be identical. In other words, for test scores to be valid, the procedures involved in test administration need to be uniform for all students.

Validity

Validity is the extent to which an assessment measures what it was intended to measure, whether test results discriminate between students who do and do not have the characteristic being tested. Three types of validity impact test results:

1) Criterion-related (predictive) validity compares test scores with an external variable (criterion) considered to provide a direct measure of the behavior.

2) Content validity shows how well the content of the test samples the class of situations or subject matter about which conclusions are to be drawn.

3) Construct validity is the extent to which the test measures the skill, attitude, or ability in question.

Teachers want tests that detect the amount of a skill, attitude, or ability a person has. Validity determines the measure's believability. The higher the validity coefficient, the more credible is the test. The teacher can assess validity by determining the extent of correlation between two measures of the same skill or of a measure with the teacher's grades or observations in the same skill area.

Reliability

Reliability refers to the consistency of scores and the degree to which a test can be trusted to measure the same trait or ability each time it ﹏ administered. Reliability indicates the degree of confidence that can be placed in a score. A test is reliable if it provides a highly precise indication of students' standings with respect to one another. Reliability varies with heterogeneity of

the group (the more variable the group, the higher the reliability), ability level (different abilities are measured at different difficulty levels), and length of the test (generally, the longer the test, the more reliable it is). The higher the correlation coefficient, the more reliable or consistent is the score. The standard error of measurement provides an estimate of the degree of confidence that the obtained score is the true score.

In test interpretation, it is important to understand the nature and differences between norm-referenced tests and criterion-referenced tests. A given test is not necessarily labeled as one or the other. Any single measure can be both norm-referenced and criterion-referenced, depending on how it is used and how the scores are interpreted.

Norm-referenced tests

Norm-referenced tests (NRTs) are designed to determine an individual's relative standing in comparison with a norm group. The emphasis is on measuring individual differences by demonstrating that an adult student has more or less knowledge, interest, skill, or ability than other members of the reference group(s) to which he belongs. Knowledge from a NRT is helpful in comparing one student's score with those of others and in defining a student's standing in a group. Since NRT scores describe a student relative to other students, they do not indicate the student's mastery of particular content and they do not indicate why the student scored as he did nor why he missed certain questions.

Norm-referenced scores, by definition, are distributed on a normal curve where the majority of scores are expected to occur at the middle of the curve (at and around the 50th percentile) while smaller numbers of cases appear at the higher and lower extremes. The normal curve approximates the frequency of a given characteristic or behavior in the population. Figure 6 displays the normal curve and the percent of cases that fall in the middle and at either extreme. In order to emphasize differences between students, questions or tasks on a NRT represent a wide range of difficulty, with the expectation that most students will respond to about half of the items correctly and only a very few students will be able to respond either to most items correctly or to few items correctly.

A student's relative position in the norm group can be determined by converting the raw score or number of items marked correctly to standard scores such as percentiles, normal curve equivalents (NCEs), stanines, or grade-equivalents, using appropriate norms tables.

-41-

51

Figure 6 shows the relationship of percentiles, NCEs, and stanines.
The particular standard score to be reported depends on its use.

Figure 6

The Relationship of Various Scales to the Normal Curve
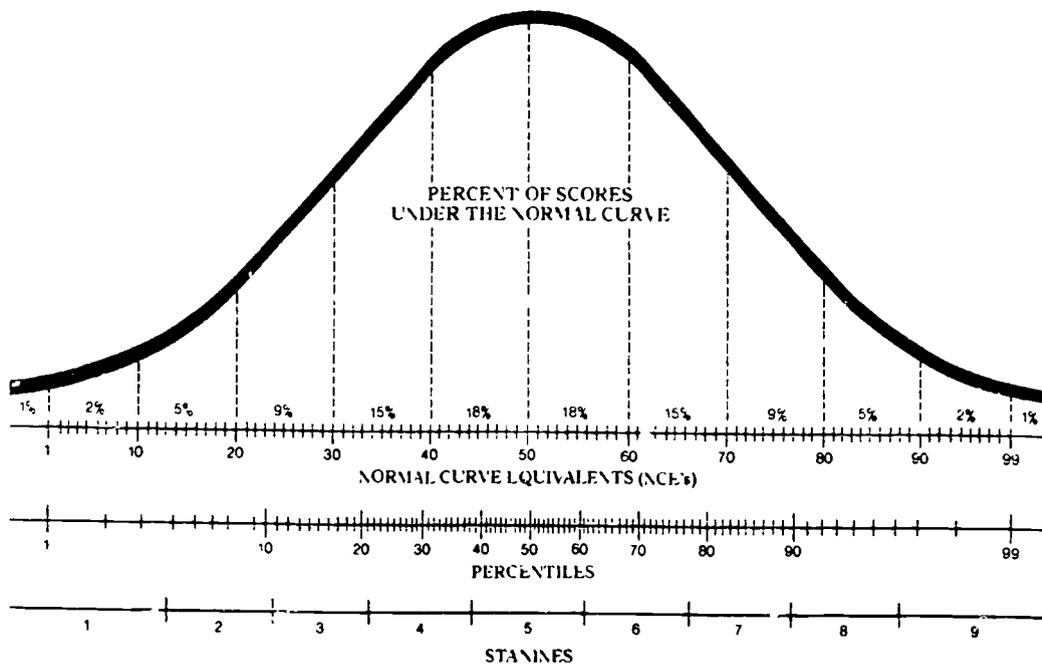
The figure shows that percentiles bunch up in the middle of the
normal curve, indicating that most scores are in this area. NCEs
and stanines are both equal interval scales related to percentiles
but spread out evenly across the curve. NCEs are used primarily
for statistical purposes but stanines are useful to report that
students are in the top third, middle third, or bottom third, based
on obtained scores.

Examples of widely used adult assessments that yield norm-
referenced scores are the Tests of Adult Basic Education (TABE),
the Adult Basic Levels of Education (ABLE), and the
Gates-MacGinitie Reading Tests. To construct these tests, the test
publishers (McGraw-Hill, Psychological Corporation, and Riverside
respectively) reviewed and sampled content from many adult
education curricula and texts. They developed norms for the tests
using thousands of adults representing the total population in
various settings throughout the country. Although local norms can
be established on smaller numbers of cases, published tests have

-42-

credibility due to their high validity based on sampling a large
content domain and high reliability based on the large numbers of
adults used in the norm groups.

NRTs are particularly useful for summative evaluation because of
the built-in standards of comparison. Used as pre and posttests,
gains can be shown for individual students, for classrooms, and for
total programs. Students are expected to attain higher scores,
regardless of the statistics used for reporting, on posttests than
they did on pretests because of the instructional intervention.

Sample NRT score reports

Analysis of each student's performance should include his
performance within each area of achievement and his performance
across all subtests to determine relative strengths and weaknesses.
An examination of specific objectives and items achieved and those
missed provides detailed information for follow-up instruction.

Reviewing samples of score reports taken from publishers'
catalogues demonstrates methods of meaningful interpretation of
test results and suggests ways of using the results for
instruction. The examples shown are from publisher-scored tests.
However, similar data can be collected and displayed by teachers
using hand-scored results.

An individual TABE subtest report appears in Figure 7. The top of
the report displays identification data. The body of the report
contains the following scores for each subtest area: number
correct, scale score, standard error of measurement, grade
equivalent, and percentile rank for the selected reference group.
The section on the right provides predicted G.E.D. scores for the
student.

The teacher can review the student's performance in the various
subject areas in order to plan instructional content and allocate
time effectively by comparing the obtained percentile ranks. The
other scores presented cannot be compared to each other because
they vary across subtests. The percentile rank means the same
thing from one test to another. It indicates the percentage of
scale scores in a norm group that fall below a given examinee's
scale score.

Scores in the sample indicate that the student performed at a very
high level in math computation (highest score) while at a very low
level in math concepts and applications (lowest score). This
example shows that the total math score does not yield as much
information as the scores of individual subtests. The total math
score is an average of two very different levels of performance on
math subtests and analyzing total math score alone would give a
misleading picture of the student's mathematical ability.

-43-

Figure 7

Individual Subtest Report

```
TABE (Tests of Adult Basic Education)                              CTB/McGraw-Hill
=========================================================================
INDIVIDUAL SUBTEST REPORT                              REPORT DATE  15 JAN 87
-------------------------------------------------------------------------
EXAMINEE    Kim Lee                        ORGANIZATION  City Center
EXAMINEE ID 987654321                      SITE          Oakland
EXAMINER    Jean Smith                     TEST DATE     12 JAN 87
-------------------------------------------------------------------------
TEST          NUMBER   SCALE          GRADE        II PERCENTILE GROUP
  SUBTEST     CORRECT  SCORE  S E M   EQUIV  %ILE  II ABE
-------------------------------------------------------------------------
Reading - M/5 - 03 Feb 86                          II Standard Error   G E D
  Vocabulary     25    693    12    4 3    32      II of Estimate      Scores
  Comprehension  30    713     6    5 5    24      II                \        I
  Total                70     4 9    29      II Predicted                 I
Mathematics - M/5 - 03 Feb 86                      II G E D  Score            I
  Computation    40    790     8    8 1    79      II                \   \    I
  Concepts/Appl  25    679    13    3 8    21      II Writing  30   5 3  3
  Total                735           5 9    47      II Math     45   3 7  45
Language  M/5 - 03 Feb 86                           II Science  31   3 9  30
  Mechanics      17    680    13    4 2    41      II Lit/Arts  40   3 7  39
  Expression     22    679    12    3 7    31      II Soc Stud  40   3 8  38
  Total                679           3 7    34      II
Total Battery          706           5 0    34      II Average  38   3 6  37 4
Spelling - M/5 - 03 Feb 86                          II
                 17    696    12    4 7    22      II
-------------------------------------------------------------------------
```

All of the scores for this student, except math computation, fall
below average (which is represented by the 50th percentile).
Priority areas for follow-up instruction and for allocation of more
time are indicated in reading comprehension, language expression,
and spelling. The area of concepts and applications in mathematics
also needs to be strengthened; however, because this student has
shown high ability in math on the computation subtest, low scores
on this particular subtest may result partially from low
proficiency in language rather than a lack of understanding in
math. An analysis of scores on individual objectives would further
clarify the student's performance levels and needs.

Another example from the TABE presents individual subtest and
objective scores (see Figure 8). The top part of the report is the
same as that in the previous example. The bottom of the report
contains additional useful information about student performance on
individual test objectives. Each subtest and each objective of the
test are listed along with the number of items that the student
answered correctly out of the number of items on the test (e.g.
7/10 indicates that, out of 10 items, the student answered 7
correctly.) The last column indicates whether or not the student
mastered the objective. The + symbol in the column indicates
mastery.

-44-

Figure 8

Individual Subtest and Objectives Performance Report

```
TABE (Tests of Adult Basic Education)                          CTB/McGraw-Hill
================================================================================
INDIVIDUAL SUBTEST AND OBJECTIVES PERFORMANCE REPORT        REPORT DATE   15 JAN 87
--------------------------------------------------------------------------------
EXAMINEE:   Elinor Jones                    ORGANIZATION  City Center
EXAMINEE ID  123456789                      SITE          Oakland
EXAMINER:   Jean Smith                      TEST DATE     12 JAN 87
--------------------------------------------------------------------------------
```

TEST SUBTEST	NUMBER CORRECT	SCALE SCORE	S E M.	GRADE EQUIV	%ILE		PERCENTILE GROUP Juvenile Offenders					
Reading - E/S - 03 Feb 86							Standard Error		G E D			
Vocabulary	25	667	14	3.3	29		of Estimate			Scores		
Comprehension	31	699	21	4 9	37			\			I	
Total		680		3 7	33		Predicted				I	
Mathematics - E/S - 03 Feb 86							G E D Score				I	
Computation	40	727	16	4 9	43			\	\		I	
Concepts/Appl	25	609	17	2 4	17		Writing.	25	5	3	24	
Total		669		3 3	24		Math	25	3	7	26	
Language - E/S - 03 Feb 86							Science	22		3.9	22	
Mechanics	17	617	12	2 3	28		Lit/Arts	23	3	7	23	
Expression	22	652	17	2 6	38		Soc Stud	21	3	8	20	
Total		635		2 5	30							
Total Battery		661		3 2	30	'	Average	22	3	6	23	0
Spelling - E/S - 03 Feb 86												
	17	630	12	2 6	17							

```
--------------------------------------------------------------------------------
OBJECTIVES PERFORMANCE
----------------------   -------------------------------------------------------
```

OBJECTIVE	# CORR/ # POSS	MAST-ERY	OBJECTIVE	# CORR/ # POSS	MAST-ERY
Reading Vocabulary			Math Concepts & Applications		
Synonyms	7/10		Numeration	7/8	+
Antonyms	5/5	+	Number Sentences	6/6	+
Homonyms	6/6		Number Theory	3/6	
Affixes	3/4		Problem Solving	5/11	
Words in Context	4/5		Measurement	2/5	
Reading Comprehension			Geometry	2/4	
Passage Details	11/13	+	Language Mechanics		
Character Analysis	2/4		Pronoun I,Noun,Adject	4/5	+
Central Thought	5/7		Beginning Word,Title	5/6	+
Interpreting Events	8/11		Period,Quest,Exclam	3/6	
Writing Techniques	5/5	+	Comma,Colon,Semi,Quot	3/7	
Math Computation			Proofreading	2/6	
Add Whole Numbers	8/8	+	Language Expression		
Add Decimals	3/4	+	Nouns	2/7	
Add Fractions	2/4		Pronouns	5/6	+
Subtract Whole Numbers	7/8	+	Verbs	4,5	+
Subtract Decimals	2/4		Adjectives,Adverbs	3/7	
Subtract Fractions	2/4		Sentence Recognition	2/4	
Multiply Whole Numbers	8/8	+	Sentence Combining	2/6	
Divide Whole Numbers	8/8	+	Topic Sentence	2/4	
			Sentence Sequence	2/6	
			Spelling		
			Vowel Sounds	9/11	+
			Consonant Sounds	6/10	
			Structural Units	2/5	

-45-

The advantage of analyzing data on objectives is obvious. Future instructional time and effort need to focus on unmastered objectives. Short-term instructional objectives can be developed for areas in which the student is borderline - having nearly mastered the objective tested. For areas in which student performance is further away from mastery, long-term instructional objectives must be planned.

Another way to display student data is with a class summary report. The example in Figure 9 includes the level and form of test that was administered since different levels of the test can be administered in the same class. The class summary report provides the teacher with a quick visual overview of scores of the total class and assists in planning instructional groups based on test scores. Using data in the figure for reading comprehension, the following pairings - based on similar performance levels - might be made for instructional purposes:

Student	Percentile	Student	Percentile
Abbot	89	Parkin	36
Fredericks	85	Quan	41
Hayes	76	Rodgers	11
Johns	75	Thompson	1

If the teacher wanted only two groups for reading, he would group Abbot, Fredericks, Hayes, and Johns together in one group and Parkin, Quan, Rodgers, and Thompson together in a second group. Scores for Rodgers and Thompson indicate a need for tutoring in reading.

For instruction in math computation, students would be shifted into the following groups:

Student	Percentile	Student	Percentile
Hayes	86	Abbot	69
Johns	86	Fredericks	43
Parkin	81		
Quan	86		
		Rodgers	11
		Thompson	2

The first four students need very little practice in math computation because their scores are well above average. Abbot is above average and Fredericks is slightly below average and they need a moderate amount of review and practice. Rodgers and Thompson need a great deal of very basic instruction in math computation and time should be allocated for this activity.

Figure 9

Class Summary Report

```
TABE (Tests of Adult Basic Education)                          CTB/McGraw-Hill
=============================================================================
SUMMARY REPORT                                          REPORT DATE   15 JAN 87
-----------------------------------------------------------------------------
EXAMINER   Jean Smith      PERCENTILE        ORGANIZATION  City Cente·
TEST DATE  12 JAN 87       GROUP   ABE       SITE          Oakland
-----------------------------------------------------------------------------
```

	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Spll
ABBOT JOE											
Scale Score	788	771	784	788	740	764	735	753	746	765	765
Grade Equiv	12 5	11 5	12 9	7 9	7 8	7 8	11 0	10 5	12 0	9 9	12 3
Percentile	90	89	⁻1	69	61	67	74	81	80	83	88
Level/Form	A/5	A/5	A/5	M/5	M/6	M/6	A/5	A/5	A/5		A/5
FREDERICKS N											
Scale Score	772	765	769	759	714	738	725	739	732	747	757
Grade Equiv	9 8	9 9	9 7	6 2	5 8	6 1	9 2	9 0	8 9	8 9	10 1
Percentile	81	85	83	43	36	41	63	71	66	65	80
Level/Form	A/5	A/5	A/5	M/6	M/6	M/6	A/5	A/5	A/5		A/5
HAYES SALLY											
Scale Score	763	757	761	804	773	788	725	738	732	760	748
Grade Equiv	8 9	8 8	8 9	10 4	10 8	9 0	8 9	8 9	9 3	8 7	
Percentile	74	76	76	86	90	89	63	70	66	78	70
Level/Form	D/5	D/5	D/5	A/6	A/5	A/6	D/5	D/5	D/5		D/5
JOHNS TOMMY											
Scale Score	765	756	760	804	770	787	725	743	734	760	757
Grade Equiv	9 1	8 7	8 8	10 4	10 3	10 3	9 0	9 4	9 2	9 3	10 1
Percentile	76	75	75	86	89	88	63	74	69	78	80
Level/Form	D/5	D/5	D/5	A/6	A/6	A/6	D/5	D/5	D/5		D/5
PARKIN PETER											
Scale Score	721	726	723	799	758	778	706	709	708	736	735
Grade Equiv	5 9	6 ı	5 9	9 1	9 0	9 0	6.1	6 0	6 0	5 9	7 1
Percentile	36	36	36	81	80	82	41	45	43	52	51
Level/Form	M/5	M/5	M/5	A/6	A/6	A/6	M/5	M/5	M/5		M/5
QUAN SAMUEL											
Scale Score	723	731	727	804	773	788	692	710	701	739	738
Grade Equiv	6 0	6 4	6 2	10 4	10 8	10 6	5.1	6 1	5 4	6.2	7 1
Percentile	38	41	39	86	90	89	28	46	36	56	55
Level/Form	M/5	M/5	M/5	A/6	A/6	A/6	M/5	M/5	M/5		M/5
RODGERS ALAN											
Scale Score	677	686	681	607	617	612	649	656	654	649	702
Grade Equiv	3 7	4 0	3 1	2 6	2 5	2 5	3 0	3 2	2 8	2 9	5 0
Percentile	14	11	12	11	2	1	7	15	10	4	17
Level/Form	E/5	E/5	E/5	E/6	E/6	E/6	E/5	E/5	E/5		E/5
THOMPSON TOM											
Scale Score	556	590	570	653	647	650	623	665	644	621	702
Grade Equiv	2 0	2.3	2 1	3 1	3 0	3 0	2.4	2 6	2 6	2	5 0
Percentile	3	1	1	2	6	3	4	18	8	1	17
Level/Form	E/5	E/5	E/5	E/6	E/6	E/6	E/5	E/5	E/5		E/5
Case Count	8										
Mean SS	720	722	721	752	724	738	698	714	706	722	738
Mean GE	5 8	5 8	5 8	5 8	6 5	6 1	5.5	6 6	5 8	5 9	7 4
Mean %ile	36	32	34	38	45	41	33	49	41	38	55

-47-

57

Figure 10 shows the results of a single purpose test, the Gates-MacGinitie eading Test. Various norm-referenced statistics describe the performance of a student on vocabulary, comprehension, and total reading. The plotted national stanine band gives similar information as does the reported SEM on TABE reports. It estimates the range in which the true score falls. Overlapping bands can be interpreted that no significant difference occurs between scores; if bands do not overlap, significant difference can be inferred between the two non-overlapping subtest areas. A note at the

Figure 10

Individual Score Report

58

bottom of the report gives a short narrative description of the student's performance.

The student in this example scored well above average on the reading test. Her total reading percentile rank is 87. She scored much higher in comprehension than in vocabulary, although the difference is not considered statistically significant. In follow-up with this student, relatively greater time should be allocated and activities planned for vocabulary development.

The class summary report (Figure 11) for the Gates-MacGinitie Test provides an overview of the performance of the class and enables the teacher to set up meaningful groups for reading instruction.

Figure 11

Class Summary Report

Gates-MacGinitie Reading Tests

| Building LINCOLN ELEM | Grade 5 | Page No 1 | Process No 000-0328-000 |
| Teacher MISS BETH YATES | Form 1 | Date of Test 11/82 | Norm FALL | System NORTH CENTRAL |

STUDENT DATA			VOCABULARY							COMPREHENSION							TOTAL						
SI. ITS NAME		DATE OF BIRTH	RS	GE	NAT'L PR	S	NCE	ESS	LOC PR S	RS	GE	NAT'L PR	S	NCE	ESS	LOC PR S	RS	GE	NAT'L PR	S	NCE	ESS	LOC PR S
BECKER,BRUCE	D	10/71	23	4 7	44	5	47	491		21	4 5	42	5	46	486		44	4 6	42	5	46	490	
COOPER,DAVID	D	10/71	39	8 7	94	8	83	581		39	11 7	97	9	91	627		78	10.0	97	9	90	601	
GOLDEN,SHIRLEY	D	01/72	20	4.2	33	4	41	478		19	4 1	33	4	41	473		39	4 2	33	4	41	476	
GRIFFITH,RACHEL	D	06/72	1	6 7	78	7	66	538		36	9 7	92	8	80	594		69	7 7	87	7	74	560	
HANSEN,CHAS	D	05/71	27	5 5	56	5	53	508		25	5 6	58	5	54	512		52	5 5	58	5	54	510	
HUPBERT,DUSTIN	D	10/71	20	4 2	33	4	41	478		15	3 2	20	3	32	445		35	3 8	27	4	37	466	
JACKSON,BETSY	D	09/71	32	6 5	73	6	63	533		29	6 7	72	6	62	538		61	6 6	73	6	63	534	
LITTON,VANCE	D	02/72	26	5 3	54	5	52	504		22	4 7	46	5	48	493		48	5.1	50	5	50	500	
MADDEN,JIMMY	D	11/72	21	4 4	37	4	43	482		22	4 7	46	5	48	493		43	4 6	41	5	45	488	
OGDEN,RUSSELL	D	02/72	30	6 0	67	6	59	522		25	5 6	58	5	54	512		55	5 8	63	6	57	518	
PAYNE,CINDY	D	12/71	15	3 5	18	3	31	454		23	5 1	50	5	50	499		38	4 1	32	4	40	474	
RUSSELL,CHRIS	D	09/71	20	4 2	33	4	41	478		21	4 5	42	5	46	486		41	4 4	37	4	43	482	
SADLER,KIM	D	12/72	23	4 7	44	5	47	491		23	5 1	50	5	50	499		46	4 8	46	5	48	495	
TERRELL,BECKY	D	01/72	20	4 2	33	4	41	478		13	2 8	13	3	26	426		33	3 7	24	4	35	460	
VANCE,KEVIN	D	09/71	33		7 78	7	66	538		27	6 1	65	6	58	524		60		5 72	6	62	531	
WIESE,MYRON	D	03/72	37	7 8	89	7	76	564		28	6 6	68	6	60	531		65	7 2	80	7	68	547	
			5 5	56		53.1	507			5 5	56		52 9	509			5 4	56		53 3	508		
CLASS AVS N = 16			NOT INCLUDED = 0																				
NO N = 16	M NCNT =	16																					

PREPARED BY RIVERSIDE SCORING SERVICE

Criterion-referenced tests

In contrast to norm-referenced measures, criterion-referenced tests (CRTs) compare the student, not to others in a norm group, but to specifically stated learning objectives. For example, instead of determining that a student is "average", "at the 50th percentile", or "at a certain grade level" (normative terms), he can be required to perform a given task or answer questions at a minimum level of proficiency (such as 70 percent or 3 out of 4) before he is considered to have mastered the objective and allowed to proceed to the next higher or more complex instructional level. Questions or tasks on a CRT represent skills, abilities, or knowledge that students are expected to achieve or answer in order to demonstrate mastery. Because CRTs focus on specified objectives that students are expected to have covered, CRT items are more homogeneous than are those on a NRT.

CRTs can be purchased from publishing companies in the form of prescriptive tests or they can accompany texts as mastery tests. Standardized achievement tests that usually yield norm-referenced scores, such as percentiles, can be scored in criterion-referenced terms (noting the percent of items correct on each of the objectives). CRTs can be built by teachers or program directors from item banks. The most common examples of CRTs are teacher-made tests.

The Texas Educational Assessment of Minimum Skills (TEAMS), required for high school diplomas in Texas, is a CRT. Test items on TEAMS are designed to sample specific essential elements that are to be taught to all students in the state; students are expected to be able to master the objectives on the test. Mastery criteria are predetermined for each subtest area and usually are established empirically, based on an analysis of scores actually attained by groups of students and the numbers of students who would pass or master the test at various cut scores. TEAMS has been equated to a NRT, the Metropolitan Achievement Test, 6th edition (MAT6), so that a norm-referenced score can be generated along with the TEAMS mastery score. This linkage was accomplished by testing approximately 12,000 Texas students with both the TEAMS and the MAT6 during 1985-86; it allows schools to estimate how their students compare with students nationally who have taken the MAT6.

Criterion-referenced tests are particularly useful for formative evaluation because of their direct instructional referents. They provide ongoing process information on individuals as well as classes. CRTs are used for diagnosis and placement as well as monitoring and can provide mastery checks and profiles of individual students and classes. They are also used as end-of-course achievement tests. Analysis of CRT results allows the teacher to determine whether a student has achieved a specific objective and is ready to move to enrichment, to the next objective, or if he needs to be retaught the current objective.

Areas of high and ~ w performance are easily identifiable so that
remedial pro͟ ͟ams ͟ ͟using on areas of weakness can be devised.

Sample CRT score report

An example of a CRT score output can be taken from the TEAMS
results. Figure 12 shows an individual student report for a
hypothetical student indicating the particular objectives within
each subtest area the student mastered along with the number of
items answered correctly. A boxed question about mastery with
"yes" or "no" makes clear whether the student mastered the overall
subtest. Reporting mastery by individual objective provides the
teacher with detailed information for instructional planning.

Figure 12

Individual Student Report

TEXAS EDUCATIONAL ASSESSMENT OF MINIMUM SKILLS
CONFIDENTIAL STUDENT REPORT

STUDENT CAMBELL   RUTH   P   DISTRICT 999-001 EXAMPLE ISO   REPORT DATE MAY 1987
DATE OF BIRTH 05/16/72   CAMPUS 001 BLUEBONNET H S   DATE C-TES 5 FEBRUARY 1987
DISTRICT STUDENT ID 000000- 50   CLASS GROUP LAURA GARBE   GRADE 09

SUBJECT AREAS TESTED	OBJECTIVES	MASTERY	ITEMS CORRECT	
M A T H E M A T I C S	1.EQUIVALENCIES	YES	3	DEMONSTRATED MASTERY OF MINIMUM GRADE NINE MATHEMATICS COMPETENCIES? YES
	2 FRACTIONS (+,-)	YES	4	
	3 DECIMALS (×,÷)	-	2	
	4.WORD PROBLEMS (+,-,×,÷)	YES	2	
	5 WORD PROBLEMS (RATIO, PROPORTION, PERCENT)	-	0	
	6 PERSONAL FINANCE PROBLEMS	-	2	
	7.WORD PROBLEMS (MEASUREMENT UNITS)	YES	4	
	8 AREA OF RECTANGLES, TRIANGLES	-	0	
	9.PROBABILITY	YES	3	
	10.CHARTS, GRAPHS	YES	4	
	11.FORMULAS	YES	3	

TOTAL OBJECTIVES MASTERED· 7   TOTAL ITEMS CORRECT: 29   SCALED SCORE: 725

SUBJECT	OBJECTIVES	MASTERY	ITEMS CORRECT	
R E A D I N G	1.MAIN IDEA	YES	3	DEMONSTRATED MASTERY OF MINIMUM GRADE NINE READING COMPETENCIES? YES
	2.MEANING OF WORDS	YES	3	
	3.SPECIFIC DETAILS	YES	4	
	4.SEQUENCING OF EVENTS	YES	4	
	5.DRAWING CONCLUSIONS	-	2	
	6.FACT, OPINION	YES	3	
	7 CAUSE-AND-EFFECT		2	
	8.GENERALIZATIONS	YES	3	
	9.AUTHOR'S POINT OF VIEW	YES	3	
	10 REFERENCE SOURCES	YES	3	
	11.GRAPHIC SOURCES	YES	4	

TOTAL OBJECTIVES MASTERED 9   TOTAL ITEMS CORRECT: 34   SCALED SCORE· 749

SUBJECT	OBJECTIVES	MASTERY	ITEMS CORRECT	
W R I T I N G	1 CAPITALIZATION	YES	4	DEMONSTRATED MASTERY OF MINIMUM GRADE NINE WRITING COMPETENCIES? NO
	2 PUNCTUATION	YES	4	
	3 SPELLING	YES	4	
	4 CORRECT ENGLISH USAGE	YES	3	
	5 SENTENCE STRUCTURE	YES	3	
	6 PROOFREADING	YES	4	

MULTIPLE-CHOICE OBJECTIVES MASTERED 6   TOTAL ITEMS CORRECT. 22

PERSUASIVE WRITTEN COMPOSITION RATING: I   SCALED SCORE· 663

9017-05970-01234

-51-

In the example, the student mastered the math and reading subtests overall even though four objectives in math and two in reading were not mastered. In writing, the multiple-choice objectives all were mastered but the writing sample was not; therefore, the overall writing subtest was not mastered. Remediation for this student should include: practice in writing; in reading - drawing conclusions and cause and effect; and in mathematics - decimals, word problems (ratio, proportion, percent), personal finance problems, and areas of rectangles and triangles.

An overall class summary for a CRT subtest showing the group's mastery level is shown in Figure 13. From this format, the teacher can see at a glance the specific areas of non-mastery for each student. The teacher can use this information to target specific

Figure 13

Class Summary

objectives and specific students for remediation and in planning
study groups. Based on percent mastery of the sample data, the
following objectives call for remediation:

Objective	Percent of class not mastering
Fact, opinion	46%
Cause and effect	43%
Author's point of view	43%
Sequencing of events	36%
Drawing conclusions	25%
Main idea	21%
Specific details	21%

There are four students listed who did not master the overall
subtest. They need intensive, in-depth remediation on all
objectives.

Self-Assessment to explain score variation

Following the reporting of test scores in a format to facilitate
individualized planning, the teacher needs to understand why
students scored as they did. In interpreting test scores, whether
from a NRT or CRT, it is useful to look both at individual student
gains and at classroom averages. On a NRT, if the average class
of test scores increases or decreases considerably from one year to
the next, and on a CRT, if mastery levels vary to a large extent
across students or between classes, the teacher should conduct a
self-study to investigate all possible causes for the changes. If
students did not achieve or show expected gain, there is a reason.
Lack of progress by the student cannot be blamed on the student's
lack of ability or lack of motivation - without, at least first,
conducting a self-assessment of classroom variables in instruction
and curriculum areas as they actually occurred in a given course.
Similarly, if significant gains were made, the teacher should
investigate and document reasons for the gains. The question
teachers should ask is: "Of all of the variables that existed and
interacted in the classroom, which ones impacted student scores in
a way to cause them to increase or decrease?"

The self-assessment list in Figure 14 provides a useful process
tool to check the performance of teachers and students in each
course. It does not take long to scan, applying each of the
questions to the course at hand. A check may be sufficient on most
items. On others, especially where changes occurred, supporting
comments would help clarify and document variations in materials or
strategies that were used in a particular course. Because teachers
are held accountable for the progress of their students, such a
tool is a valuable means for teachers to check their various
methodologies and techniques used with individual students in a
given course and to provide a stimulus for classroom ideas.

Figure 14

Self-Assessment to Identify Variables
Impacting Student Scores

Was the average entry level of students significantly higher or lower than in other years or for other courses?

Were the course objectives clearly specified and did students understand and agree with them?

Was the curriculum material clear and well sequenced and did it cover an appropriate amount of content?

Were the instructional strategies appropriate for the particular group of students, in terms of pacing and language used?

Were multiple media - such as films, filmstrips, videotapes, and audio cassettes - used along with written materials to match the learning styles of all students?

Were various modes of presentation - such as learning centers, computers, and independent self-paced materials - incorporated into the classroom to supplement written and oral presentations and to sustain students' attention and motivation?

Were students required to produce both written and oral responses?

Was there sufficient ongoing monitoring of student progress during the course, such as checks for understanding and lesson or unit mastery checks?

Were assessment instruments and procedures standardized and appropriate in terms of matching the instructional objectives and the time and emphasis given to various aspects of the curriculum?

Did reteaching occur at points where students failed to achieve mastery?

Were task analyses performed to determine prerequisite skills to break down objectives and lessons into manageable units?

Was sufficient time on task allocated for the subject or skill area not mastered?

USING TEST RESULTS FOR INSTRUCTIONS

This section presents sample test objectives* and provides instructional techniques for each subtest area.

Vocabulary

Vocabulary subtests are designed to assess the knowledge and understanding of words which are frequently encountered by students in the work place or within daily activities. These subtests measure same meaning and opposite meaning words, words in context, multi-meaning words and affixes. Vocabulary subtests can be used to indicate the extent to which a student has acquired a working vocabulary that is necessary for functioning in the adult world. For students requiring assistance in this area, the following instructional techniques are suggested for vocabulary development:

1. Write a series of words on the chalkboard that focuses on the types of words used on government forms, job applications, and credit applications. Discuss the meanings of the words in the contexts used.

2. Have students bring in favorite recipes. (Reading a recipe correctly and understanding the vocabulary can mean the difference between a good dish and a bad one.) Check to be sure students understand the recipe vocabulary, i.e., yolk, container, combine, reduce, and recipe abbreviations, i.e., oz., c., tsp., lb.

3. Bring a variety of labels from household and food products. Focus on the words students need to know and discuss these words as they are used in context.

4. Have students categorize lists of words, such as cars, holidays, utensils, and clothing. Once the categories are determined, have the students write as many words as they can to fit each category. This can also be done orally.

* Examples used are from the subtests of ABLE and TABE Complete Battery Tests, and the Texas Educational Assessment of Minimum Skills. Activities were generated from classroom observations and teacher comments.

5.   Using samples of advertisements from magazines and newspapers, make a list of commonly used words and discuss their meanings as used in context. Focus on propaganda and the hidden meanings behind these words.

6.   Working in pairs, ask each student to tell a partner how to tie shoelaces, or how to prepare a peanut butter sandwich. The student receiving the information should write down the directions given. Ask the class if directions given were clear, correct, and in order.

Reading

Reading Comprehension subtests are designed to measure students' comprehension of written material. Most reading passages include material of a functional nature (signs, advertisements, and letters) and of an educational nature. Each passage is followed by a series of questions designed to test a student's ability not only to comprehend what is explicit in the material, but also to make inferences and to draw conclusions from what is given. Items measure skills in understanding passage details, character analyses, main ideas, generalizations, forms of writing, and author techniques.

The subtests measure comprehension through two approaches: (1) as it relates to the type of material being read (functional or educational) and (2) as it relates to the questions being asked (literal or inferential). The following instructional suggestions are categorized according to the objectives measured by each subtest.

Functional Reading calls for the ability to read and comprehend material that is essential for survival in everyday society. Functional reading tasks involve such areas as reading help wanted and other advertisements, signs, lists, letters, and applications.

1.   Bring in samples of help wanted ads. Start by having the students read the ads and ask simple questions such as, "Who has what for sale and where?" Focus on the inferences which can be drawn from such phrases as "easy credit payments", "no money down", and "economy size".

2.   Practice following directions by filling out forms, e.g., job applications, IRS forms, and driver's license forms.

3. Bring in sample restaurant menus. Have th ' students read the menus and answer questions concerning prices and food items available.

4. Make up a directory for a department store. List items that can be located in this store. Ask the students where the items can be found.

5. Bring in a variety of reading materials such as insurance forms, utility bills, and paycheck stubs. Modify the materials to meet the students' level and have them read the materials and answer questions.

Educational Reading involves material that is typically found in textbooks for a given content area. A student who has difficulty in this area might also have a problem with vocabulary. Therefore it would be helpful to compare performance in reading comprehension with that in vocabulary. If performance in both areas is low, select materials and instructional techniques that include not only a variety of educational reading passages but also include a heavy emphasis on vocabulary development and dictionary practice.

1. Make a list of abbreviations such as appt., R.S.V.P., wk., hgt., Jr., etc., and have the students apply the meanings. A list of abbreviations can be found in many dictionaries.

2. Bring a variety of textbooks to class. Let students practice reading the table of contents and using an index.

3. Arrange a trip to the local library. Explain the layout of the library and let students practice using the card catalog file and reference materials.

Literal Comprehension refers to the ability to comprehend stated meanings and details given in a particular passage. In teaching literal comprehension skills, select material of high interest to the students.

1. Read a short newspaper article or magazine article. Have the students give a possible headline or tell the main idea.

2. After the students have read a story, have them list things that happened in order, with and without referring to the story.

3. Teach the parts of a book of nonfiction. Discuss
    the probable content based on reviewing the title,
    table of contents, and index.

Inferential Comprehension is the ability to infer additional
meanings from a passage. These meanings are not directly stated
and therefore go beyond the literal level of comprehension. The
material selected to teach this skill should be relatively easy and
student related.

1. Have the students read a story. The difficulty of
    the story will depend upon the students' level.
    Ask the following questions after the adults have
    finished reading:

    a. What was the story about?
    b. What would make a good title?

2. Bring in a variety of political cartoons. Have
    students interpret the meanings.

3. Bring in newspapers that contain competing ads
    and ask the students to compare various prices.
    Grocery ads work well.

4. Bring in examples of propaganda used in
    advertisements. Tape-recorded speeches made by
    politicians may also be used. Discuss the
    examples of propaganda and analyze what was written
    or what was said.

Spelling

Spelling subtests measure application of rules for consonants,
vowels and various structural forms. The spelling words are
usually selected to be representative of the types of words
that adults need in written communication. The words also
sample the most common phonetic and structural principles
of spelling. Adult students need to spell correctly when
filling out various forms such as job applications, credit
card applications, loan applications, and government forms,
and when writing letters of application or complaint. Spelling
tests usually have objectives dealing with sight words,
structural and phonetic skills, and homophones.

Sight Words are words that must be memorized because they defy
common spelling principles. Sight words are used frequently in
written communication and are best learned through the practice of
writing.

Structural Principles are associated with the addition of inflectional endings and affixes to common base words.

Phonetic Principles involve the relationship between letters and sounds.

Homophones are words that are pronounced the same but differ in spelling and meaning. Since the spelling of a homophone is governed by the meaning of the word, the word must be presented in context.

The following instructional suggestions are provided for dealing with improving spelling ability.

.. Encourage students to keep track of words whose spelling they find difficult. (An awareness of particular spelling problems will help those problems disappear.)

2. Write a series of sentences on the chalkboard. Misspell sight words in these sentences. Challenge the students to locate the misspelled words and correct the spelling of each.

3. Give students pairs of words and have them use the dictionary to check spelling, e.g., recommend, reccommend; occassion, occasion; nineth, ninth.

4. List a variety of nouns on the chalkboard. Have students form the plurals of these nouns. This activity may be used to teach the structural rules involving forming plurals of nouns. Select the rules appropriate for each level.

5. Have students find examples of prefixes and suffixes in advertisements and newspaper articles. Discuss the examples and their meanings.

6. List words such as sent, went, rent, and bent on the chalkboard. Have students add to the list.

7. Have students list words with the same consonant sounds. Examples are bad, sad, lad, nad.

8. Make a list of common homophones (steak, stake; born, borne; capital, capitol; principle, principal). Have students write sentences using these homophones correctly in context.

9. Write sample sentences using homophones. Use these homophones incorrectly a have the students supply the correct homophone for each sentence.

Language

__Language__ subtests are usually organized into two parts: language mechanics and language expression. Capitalization and punctuation skills (language mechanics) measure the correct use of capital letters and of periods, commas, question marks, exclamation points, apostrophes, and colons, while applied grammar (language expression) measures skills in using various parts of speech, organizing sentences, agreement of subjects and verbs, and writing for clarity. The following instructional suggestions are categorized according to the objectives measured by the subtest.

Punctuation and Capitalization (Language Mechanics)

1.   Review capitalization rules. Write a series of sentences using only lower-case letters and have students insert capital letters where needed.

2.   Review punctuation rules. Have students punctuate a series of sentences.

3.   Have students do a variety of writing (resumes, letters, recipes, and instructions). Make sure that the assignment is relevant, and the difficulty is based on the students' level. Have students proofread their writing for correct punctuation and capitalization.

Applied Grammar (Language Expression)

4.   Bring in examples of non tandard usage that occasionally appear in advertisements. Discuss these examples.

5.   Write sentences on the chalkboard and deliberately make mistakes in applied grammar. Have students identify the errors and correct them.

6.   Have students write a variety of business letters (a letter of complaint, a letter ordering a particular product, a letter applying for a job). Discuss each piece of writing individually with each student. Point out errors in applied grammar and make suggestions for improvement.

Writing

The new GED test requires students to pass a holistically scored writing sample.

> Schedule time for students ac all levels to write at least a paragraph during each class session. Score holistically.

MATHEMATICS

The mathematics section on most tests includes mathematics computations (Number Operations) and mathematics concepts and applications (Problem Solving). Number Operations subtests are designed to assess concepts of numbers and computation. Objectives include reading and writing numerals, interpreting fractions, factorization, ratio, proportion, percents, equations, and using zero as an operator. Students are asked to use addition, subtraction, multiplication, and division with whole numbers, fractions and decimals to compute answers to number problems they are likely to encounter.

Problem Solving subtests assess students' ability to determine an outcome (reasoning skills needed for practical problem solving), to record and retrieve information to measure, and to use geometric concepts.

The following instructional suggestions are provided for improving students' mathematics computation and problem solving skills.

1. Bring a variety of household and food products to class. Label each product with a price. Give students an imaginary amount of money and have them determine what they can buy. Use this activity to practice making change.

2. Bring in mail-order catalogs or newspaper advertisements which list several items to be sold and the corresponding prices. Have students write word problems using the materials. For example, "Shirts are on sale 2 for $30.00. If Lee buys 4 shirts, how much will he spend?" Have the class discuss how each problem can be solved.

3. Use a checkbook to teach decimals. Reading and writing decimal numerals on checks gives concrete meaning to the translation of words to decimal numbers. Relate work with integers to checkbook balances. The use of savings deposits and withdrawals can also be used to increase math skills.

4. Locate a variety of tables and graphs for recording and retrieving information. Such examples can typically be found in news magazines. Give students opportunities to read and interpret these graphs.

5. Have students examine a map or do research on the United States in order to answer historical and geographical questions involving percents. For example, "What percent of the 50 states has a mandatory seat belt law?" "What percent of the 50 states has a common border with Mexico?"

6. Bring in a variety of recipes. Use these recipes to teach measurement and computation with fractions.

7. Bring in a variety of measurement instruments (ruler, yardstick, cup, pint, quart, cans, clock, and thermometer). Give students practice in reading and interpreting these instruments.

8. Have students bring in current statistics from the sports page of the newspaper. Use these numbers to form rounding problems, i.e., have students round each number to the nearest ones, tenths, and hundredths.

9. Working in pairs or individually have students develop a budget using their own salary or a hypothetical salary showing living expenses.

10. Bring in restaurant bills or restaurant menus. Have students practice reading a restaurant menu, practice calculating a restaurant bill, learn to estimate tips and calculate sales tax.

EXAMPLES OF TEST OBJECTIVES *

ABLE (Math) - Level 2/3

Objective

1 Demonstrate an understanding of the concepts of number, numeration, place value, and the operations to read and write numerals.

2 Add, subtract, multiply, and divide with whole numbers, fractions, and decimals; compute using percents and exponents; and solve simple equations.

3 Solve consumer-related problems using whole numbers, fractions, decimals, and percents.

4 Read and interpret information presented in a graph, table, or gauge.

5 Recognize geometric properties and compute the perimeter, area, and volume of shapes.

6 Apply knowledge and understanding of the units of measure related to time, distance, money, and quantity.

TABE - Math Level (Includes All Levels)

Objective

1-3 Add whole numbers, decimals, and fractions.

4-6 Subtract whole numbers, decimals, and fractions.

7-9 Multiply whole numbers, decimals, and fractions.

10-12 Divide whole numbers, decimals, and fractions.

13 Solve computation problems involving integers and percents.

14 Solve computation problems involving algebraic expressions.

15 Demonstrate an understanding of numeration.

16 Demonstrate an understanding of number sentences.

17 Demonstrate an understanding of number theory.

18 Demonstrate an understanding of problem solving.

19 Demonstrate an understanding of measurement.

20 Demonstrate an understanding of geometry.

TEAMS (Math - Exit Level)

Objective

1 Select the set of numbers ordered from least to greatest.

2 Round numbers to a particular place va   .

3 Identify equivalent fractions, decimal , and percents.

4 Convert numbers from exponential notation to standard notation.

*Objectives appear in abbreviated form. For more detailed test specifications, see the test manuals.

5	Solve problems involving addition/subtraction/multiplication of fractions and mixed numbers.
6	Use the basic operations to solve decimal problems.
7	Solve problems involving addition of integers.
8	Solve word problems involving multiple operations of whole numbers, decimals, fractions, and mixed numbers.
9	Solve word problems involving proportions.
10	Solve word problems involving percent.
11	Solve word problems involving metric/customary measurements using the basic operations.
12	Solve problems involving geometric formulas.
13	Use geometric properties to solve problems involving geometric shapes.
14	Solve word problems involving averages.
15	Solve word problems involving simple probability.
16	Use information from graphs and tables to solve word problems.
17	Solve word problems using formulas.
18	Solve problems to determine the value of a variable.

ADULT BASIC EDUCATION

(ABE)

ADULT BASIC EDUCATION (ABE)

Adult Basic Education (ABE) or Basic Education (BE) is an educational program for adults who function below the ninth grade level in reading, writing, English, general mathematics, and other generally required school subjects.

In the ABE area, 22 tests were identified by 119 returned surveys. Of these surveys, 27 teachers indicated they used tests which they had developed themselves for their own classes.

The following assessment instruments were identified by 70% of ABE teachers as the most frequently used assessment instruments for Adult Basic Education classes.

Tests of Adult Basic Education (CTB/McGraw Hill)

Wide Range Achievement Tests (Jastrak Associates)

Adult Basic Learning Examination (Psychological Corporation)

The Official GED Practice Test (Cambridge Publishing Company)

Gates-MacGinitie Reading Tests (Riverside Publishing Company)

General Educational Performance Index (Steck-Vaughn)

Reading for Understanding (Science Research Associates, Inc.)

ASSESSMENT INSTRUMENTS

1. TESTS OF ADULT BASIC EDUCATION (TABE)

The most frequently used assessment instrument for ABE
classes is the TABE (Tests of Adult Basic Education).
The TABE consists of achievement tests in reading,
mathematics, and language. The test items are adapted
from the 1970 edition of the California Achievement Tests
(CAT 70) and reflect language and content appropriate for
adults. They are designed to measure the understanding
and application of conventions and principles, not to
measure specific knowledge or recall of facts.

Test results are used to provide instructional
information about a student's achievement level in
reading, mathematics, and language, to identify strengths
and weaknesses, to measure growth after skill
instruction, and to aid the teacher in preparing an
individualized instructional program. The use of a
Locator Test which is designed to identify the
appropriate TABE level for students is recommended. This
test consists of both vocabulary and mathematics
computation.

The TABE itself has three levels: E (easy, grades 2.5 -
4.9), M (medium, grades 4.5 - 6.9), and D (difficult,
grades 6.5 - 8.9). Based on the student's performance on
the Locator Test, the teacher selects the appropriate
test for the student's skill level. Norms have been
established (based on the correlation of the TABE to the
CAT) and provide raw scores, grade equivalent scores, and
scale scores.

The TABE is designed for hand scoring and is both quick
and easy to score. This provides the teacher with
immediate information essential in identifying an
instructional program appropriate for the student.

Teachers' Evaluation of the TABE

Teachers generally feel that the TABE is a good
assessment tool in that it assists in identifying
appropriate class placement, selection of appropriate
materials, focuses on strengths and weaknesses, and in
development of group assignments, lesson plans, and
appropriate textbook selection.

ABE teachers feel that older students and non-native
speakers have difficulty with TABE test instructions and
procedures. The time limits of the TABE make some

-66-

students nervous, especially if it is the student's first or second class visit. Recent dropouts generally do better than older students who have been away from the classroom for a much greater length of time.

In administering the TABE to handicapped adults, teachers may choose to give the test orally and/or individually.

Teachers do not recommend using the TAPE with limited English speaking students since it causes anxiety, but they do feel that it is a good test to use for placing students in ABE or GED classes. The test results assist the teacher in identifying where to begin instruction and the student's level of knowledge. ABE teachers also use the test to review skills and provide the student with an evaluation tool to assess his own progress.

2. WIDE RANGE ACHIEVEMENT TEST (WRAT)

The Wide Range Achievement Test (WRAT) is the second most frequently used assessment instrument in Adult Basic Education classes. The WRAT is used primarily as a screening tool.

WRAT results are used in diagnosis of disabilities, in determining instructional levels, and to assist in grouping students. There are two levels of the WRAT: Level I is designed for use with students ages 5.0 through 11.11 but is also used in assessing adult learners; Level II is designed for use with students 12.0 years through adult. The WRAT is hand scored and provides grade equivalent scores, standard scores, and percentile ranks for each of the three subtests (Reading, Spelling, and Arithmetic).

Teachers' Evaluation of the WRAT

Teachers generally feel that the WRAT is easy to administer and that results determine a student's reading level, an overall educational level, and assist in program placement for both ABE and GED students. Teachers have adapted the test for special populations/handicapped adults by limiting the amount of reading, modifying instructions, or orally administering the test.

ABE teachers use test results to place students in appropriate grade levels and textbooks, to identify strengths and weaknesses, to group students according to ability to design a course of study, to develop academic and vocational goals, and to develop lesson plans.

Some teachers feel the vocabulary portion of the WRAT contains words which are intimidating to students.

3.   ADULT BASIC LEARNING EXAMINATION (ABLE)

The Adult Basic Learning Examination (ABLE) is the third
most frequently used instrument used to assess adults.
It is a battery of tests designed to measure the level of
educational achievement among adults. The test items are
adult-oriented, presented in a non-threatening format,
and cover basic skill areas of reading, mathematics, and
language arts.

The ABLE consists of three levels: Level I is for adults
who have had from 1 to 4 years of formal education (the
primary grades); Level 2 is for adults who have had from
5 to 8 years of schooling (the intermediate grades); and
Level 3 is for adults who have had at least eight years
of schooling but who have not graduated from high school
(the high school years).

The SelectABLE is a screening device used in conjunction
with the ABLE. The SelectABLE determines which level of
the ABLE test to administer to a student. It contains 45
multiple-choice questions covering verbal and numerical
concepts.

Students record their answers to the SelectABLE and the
ABLE on a Ready Score answer sheet which provide teachers
with immediate score results. The ABLE provides raw
scores, scale scores, percentile ranks, stanines, and
normal curve equivalents. The ABLE test has been equated
to the Stanford Achievement Test series and has norms
which have been developed for use with adult students.

Teachers' Evaluation of the ABLE

ABE teachers generally use the ABLE results to identify
strengths and weaknesses of students, to identify
instructional levels, to provide appropriate level
materials, and to determine if a student is ready to take
a GED practice test.

Teachers adapt the ABLE for use with handicapped adults
by administering the test orally or by having the student
dictate his/her answers.

Teachers note that students with a higher educational
background complete the ABLE test more quickly and
easily. They consider the ABLE an easy test to
administer and easy to grade. Teachers and students like
receiving instant feedback.

The ABLE test is a good instrument for ABE and GED
placement.

4.   THE OFFICIAL GED PRACTICE TEST

A number of ABE teachers recommend the Official GED
Practice Test for use with adult basic education
students.   The GED tests make it possible for qualified
individuals to earn high school equivalency diplomas or
certificates.   They are designed to measure the major
outcomes and skills generally associated with four years
of regular high school instruction.   The tests use a
multiple-choice format for each of five subject areas:
writing skills, social studies, science, reading skills,
and mathematics.

There are two Official GED Practice Test forms (Forms A
and B) to help students determine their readiness to take
the full length GED tests.   The Practice Test forms
contain a representative sampling of the types of
questions and content areas covered in the full length
tests.   Results can be reviewed by the instructor and
provide an estimate of a student's probable degree of
success on the full length tests.   Results will also
identify subject area clusters in which instruction and
further study may be necessary.

Teachers' Evaluation of the Official GED Practice Test

In administering the test for special populations or
handicapped adults, teachers will give the test orally or
individually if needed.

Teachers use the Official GED Practice Test results to
identify further areas of study, to identify student
strengths and weaknesses, and to determine student
placement.   They find that younger students generally
perform better than older adults who have not been in the
classroom or done any test taking recently.   The test
provides teachers with a means of identifying remediation
materials and provides opportunities for students to
assess their preparedness for the GED test.

The Official GED Practice Test is not generally
recommended for limited English speaking students because
it tends to cause anxiety for them.

5.   GATES-MACGINITIE READING TESTS

The Gates MacGinit e Reading Tests identify the general
level of reading achievement of individual students. The
test is composed of two parts: vocabulary (word
knowledge) and reading comprehension. The test consists
of seven levels which are based on grade levels: Level R
(grades 1.0 - 1.9), Level A (grades 1.5-1.9), Level B
(grade 2), Level C (grade 3), Level D (grades 4-6), Level
E (grades 7-9), and Level F (grades 10-12). Each level
of the test has two forms.

The Gates-MacGinitie Reading Tests assist teachers in
identifying students who need additional or special
instruction, in making decisions about the grouping of
students, and in identifying appropriate instructional
levels.

The test can be hand scored and yields raw scores,
percentile ranks, normal curve equivalents, stanines,
grade equivalents, and extended scale scores.

Teachers' Evaluation of the Gates-MacGinitie Reading
Tests

The Gates-MacGinitie Reading Tests are considered by
teachers to be easy tests to administer and to grade.
They provide good feedback to students on weak areas.
The results of the test give a true placement level for
GED and ABE students. Teachers have found, however, that
older students are somewhat embarrassed to take this test
and therefore do not do as well on it as younger
students.

The Gates-MacGinitie Reading Tests can be administered
orally and/or individually for handicapped students.

6.   GENERAL EDUCATIONAL PERFORMANCE INDEX (GEPI)

The General Educational Performance Index is a tool used
to assess GED preparedness. The test measures the
student's understanding of topics in the following area.
writing skills, reading skills, mathematics, social
studies, and science. The test scores are designed to
indicate the level of understanding and to predict
probable success on a GED test. Results aid teachers in
identifying areas in need of remediation. It is also an
excellent tool which can be used to increase students'
confidence in performing well on a GED test.

The reading level of the GEPI ranges from 8th to 12th
grade. There are two forms of the test (Forms AA and
BB). The test is hand scored using scoring templates.

Teachers' Evaluation of the General Educational
Performance Index

Teachers feel the General Educational Performance Index
is a good tool with which to measure a student's
knowledge in each of the five subtest areas, to identify
class placement, and to identify student strengths and
weaknesses. It is considered to be an excellent
predictor of success on the GED. The test may be
administered orally or individually to handicapped
students. Teachers have indicated that the test seems to
be more difficult for persons whose native language is
Spanish and for those with a weak educational background.
Teachers have found that younger students and older
students do well on this test.

7.   READING FOR UNDERSTANDING (SRA)

Reading for Understanding is a reading comprehension
program which utilizes higher level thinking skills and
can be used as an enrichment tool for any reading
program.   The program has three levels: Level 1 (grades
1-3), Level 2 (grades 3-7), and Level 3 (grades 7-12).
Each level includes a pre and posttest to assist the
teacher in determining reading placement.   Students are
able to work independently.

Teachers' Evaluation of Reading for Understanding

Reading for Understanding results assist teachers in
identifying reading placement, grade level, and in
appropriate curriculum and reading materials selection.
Teachers also use the results to place students in either
an ABE or ESL class based on his/her strength in phonics
and word recognition.   Teachers feel that this is an
appropriate instrument for all students regardless of age
except for ESL students because of the language
difficulty.   They recommend adapting Reading for
Understanding for handicapped students by administering a
lower level test and also by having the student respond
orally to the pre and posttest.

Following is a chart which provides a sample of the assessment instruments which were critiqued by ABE teachers. The instruments are ranked from the most frequently used for assessing ABE students to the least used.

SUMMARY OF TESTS USED
ABE

TEST	PUBLISHER	PERCENTAGE USING TEST FOR *	PERCENTAGE ADMINISTERING TEST ON *	TEST GIVEN BY & HOW IT WAS GIVEN *	TIME NEEDED TO GIVE TEST *	TEST WAS GIVEN *	RESULTS USED TO OBTAIN GRADE, INSTRUCTIONAL LEVEL *
TABE	McGraw Hill	Placement 93 / Pretest 74	1st Day 96	Teacher 93 / Individually 89	More than one sitting 44	English 100 / Written 100	G. E. 52 / Instr L 37
WRAT	Guidance Associates	Placement 100 / Pretest 53	1st Day 93	Teacher 93 / Individually 93	1 Hour 47	English 100 / Written 100	G. E. 67 / Instr. L. 27
ABLE	Psychological Corp.	Placement 92 / Pretest 50	1st Day 100	Teacher 92 / individually 100	1 Hour 40	English 100 / Written 100	G. E. 60 / Instr. L. 27
GED	Cambridge	Placement 67 / Pretest 89	1st Day 67	Teacher 100 / Individually 100	No time limit 44	English 78 / Written 100	G. E. - / Instr ! 55
Gates-Mac Ginitie	Riverside	Placement 100 / Pretest 63	1st Day 75	Teacher 100 / Individually 100	1 Hour 63	English 100 / Written 100	G. E 63 / Instr. L. 38
General Education Performance Index	Steck-Vaughn	Placement 50 / Posttest 67	Student's ability 50	Teacher 83 / Individually 67	Over 2 hours 33	English 100 / Written 83	G. E. - / Instr. L. 67
Reading for Understanding	Science Research Associates, Inc	Placement 100 / Pretest 33	1st Day 100	Teacher 100 / Individually 100	1 Hour 33	English 100 / Written 1	G E 83 / Instr. L. 50
The Five Subject Area GED Texts *[1]	Cambridge	Placement 2 / Pretest 3	1st Day 2	Teacher 3 / Individually 3	1 Hour 2	English 4 / Written 4	G. E. - / Instr. L. 1
Reading Progress Scale *[1]	Revrac Publications	Placement 3 / Pre/Posttest 2	1st Day 3	Teacher 3 / Individually 2	Less than 30 min. 3	English 3 / Written 3	G. E. 1 / Instr. L. 2
San Diego Quick Assessment *[1]	TRENDS	Placement 3 / Pre/Posttest 1	1st Day 3	Teacher 3 / Individually 3	Less than 30 min. 2	English 3 / Oral 3	G. E. - / Instr. L. 3
Slosson Oral Reading Test *[1]	Slosson Educational Publications	Placement 3 / Pre/Posttest 2	1st Day 2	Teacher 3 / Individually 2	Less than 30 min 3	English 3 / Oral 3	G E 2 / Instr L 2

* Percentages given are based on the number of teachers reviewing the specific test and how they are using the test. Because multiple answers were possible (i.e., test could be used for placement, pretest and posttest), percentages given may not equal 100%

*[1] Five or less teachers reviewed this test, numbers given are by response, not percentage.

SUMMARY OF TESTS USED

ABE

(Continued)

TEST	PUBLISHER	PERCENTAGE * USING TEST FOR	PERCENTAGE * ADMINISTERING TEST ON	TEST GIVEN BY &* HOW IT WAS GIVEN	TIME NEEDED * TO GIVE TEST	TEST WA * GIVEN	RESULTS USED TO* OBTAIN GRADE, INSTRUCTI 'L LEVEL
Math Test *1	Lubbock ABE	Placement 2 Pre/Posttest 1	1st Day 2	Teacher 2 Individually 2	1 Hour 2	English 2 Written 2	G. E. - Instr. L. 2
REAL *1	Literacy Volunteers of America	Placement 2 Pretest 2	1st Day 2	Literacy C 1 Individually 2	No time limit 2	English 2 Oral 2	G. E Instr. L. 2
Basic Essentials of Math *1	Steck-Vaughn	Placement Pretest 1	1st Day 1	Teacher 1 Individually 1	2 Hours 1	English 1 Written 1	G. E. - Instr. L. 1
Botell Reading Inventory *1	Steck-Vaughn	Placement 1 -	1st Day 1	Sec/Teacher/ Aide 1	Less than 30 min 1	English 1 Written 1	G. E. 1 Instr. L. -
Corrective Reading *1 Mastery Tests	Science Research Associates, Inc	Placement 1 Pre/Posttest 1	1st Day 1	Teacher 1 Individually 1	Less than 30 min 1	English 1 Oral 1	G. E. - Instr. L. 1
GEO-100 *1	Steck-Vaughn	Placement 1 Pretest 1	1st Week 1	Teacher 1 Individually 1	No time limit 1	English 1 Written 1	Percer le i Instr. L. -
Introduction to English (1972) *1	Cambridge	Placement 1 Pretest 1	A certain week 1	Self 1 Indi' idually 1	Not timed 1	English 1 Written	G. E. - Instr. L. 1
Nelson Denning Reading *1	Psychological Corp.	Placement 1 Pre/Posttest 1	1st Day 1	Teacher 1 Indiv/Group 1	1½ hrs/ 1 sitting 1	English 1 Written 1	G. E. 1 Percentile 1
Placement Survey for ABE *1	Steck-Vaughn	Placement 1 -	Monthly 1	Teach/Aide 1 Indiv/Group 1	2 Hours 1	English 1 Written 1	G. E. 1 Instr. L. 1
Specific Skills Series *1	Barnell Loft	-	1st Day 1	Teacher 1 Individually 1	1	English 1 Written 1	G. E. - Percentile 1
GED Preparation *1	Contemporary	Placement 1 Pretest 1	1st Day 1	Teacher 1 Group 1	-	English 1 Written 1	G. E. - Instr. L. 1

*1 Five or less teachers reviewed this test; numbers given are by response, not percentage

SUMMARY OF TESTS USED
ABE

Percentage of Teachers Rating "Very Good to Excellent" on the Survey

	TABE	WRAT	ABLE	GED	Gates-Mac Ginitie	Gen. Ed. Performance Index	Reading for Understanding	The 5 Suc. Area GED Texts	Reading Progress Scale	San Diego Quick Assessment	Slosson Oral Reading Test	Maui Test	READ	Basic Essentials of Math	Botell Reading Inventory	Corrective Reading Mastery	GED-100	Introduction to English	Nelson Denning Reading	Placement Survey for ABE	Specific Skills Series	GED Preparation
a. Easy to administer and understand	48	73	3	89	88	100	100	3	3	3	3	2	1	1	0	1	0	1	1	1	0	1
b. Easy to grade	81	87	92	89	88	100	100	2	3	3	3	1	2	0	1	1	1	1	1	1	1	1
c. Easy to interpret and use results	67	73	83	89	88	83	100	3	3	3	3	2	2	1	1	1	1	1	1	0	0	1
d. Appropriate for your students	56	47	83	67	88	100	83	2	2	3	2	1	2	1	0	1	0	1	0	0	0	0
e. Length of time appropriate for admin.	56	67	75	78	75	83	100	1	2	3	3	2	1	1	0	1	0	1	1	0	0	1
f. Length of time appropriate for getting back results	67	93	83	67	88	100	100	2	3	3	3	2	3	1	1	1	1	1	1	1	0	1
g. Correlates with materials and curriculum	56	40	67	78	75	83	67	3	2	3	2	2	2	1	1	1	1	0	0	0	1
h. Cost effective (to administer, duplicate)	44	33	75	67	63	67	100	?	1	3	3	2	1	1	1	1	0	1	1	0	0	0

* Five or less teachers reviewed this test, numbers given
are by response, not percentage.

-77-

ERIC

Of the 119 ABE teachers who completed and returned survey forms, 27 indicated they had developed assessment instruments for use in their own classrooms. These teacher-made tests are primarily used for placement purposes and can be administered by either the classroom teacher or an instructional aide. These tests involve time limits ranging from 15 minutes to two or more hours. The test results assist teachers in determining students' strengths and weaknesses as well as identifying program placement and curriculum materials.

One of the major concerns expressed by ABE teachers is the lack of coordination between assessment instruments and materials used in the classroom. Teachers feel there is a need for social studies and science placement tests which correspond to the GED test. Teachers would like to use a test that is easy to administer and grade, inexpensive, and develops from simple language and/or skills to complex concepts.

ENGLISH AS A

SECOND LANGUAGE

(ESL)

ENGLISH AS A SECOND LANGUAGE

English as a Second Language is an educational program for those
adults needing conversational English language skills. This
program provides them an opportunity to practice speaking in
English and listening to spoken English as well as to read and
write in the English language - to improve their ability to compete
and function more fully in everyday living.

In this area, 107 ESL tests were identified by the 85 completed
surveys. On those surveys, 47 teachers indicated they are using
self-developed tests in their classrooms.

The majority of ESL tests identified are teacher-developed
instruments. However, the following publisher-developed
instruments were identified by the ESL teachers:

     ESL Interview Questionnaire [placement instrument]

     LADO English Series (Regents Publishing Company)

     New Horizons in English (Addison-Wesley Publishing Company)

     Laubach Way to Reading (New Readers Press Company)

These instruments reflect the most frequently used assessment
instruments in English as a Second Language classes (other than
teacher-made tests).

92

1. ESL INTERVIEW QUESTIONNAIRE

    The ESL Interview Questionnaire guide asks the student to
    respond orally to questions concerning his/her persona'
    background. Based on the completeness of the student's
    responses in English, the teacher assesses his/her oral
    communication skills. When the student encounters
    difficulty in responding, the interview is stopped and
    the student is placed in an appropriate ESL level. The
    number of questions on the interview sheet may vary from
    10 to 20. Using this instrument the teacher is able to
    readily determine ESL level placement.

    Teachers' Evaluation of the ESL Interview Questionnaire

    ESL teachers find the interview guide is easy to
    administer, grade, and use. It can be used with any
    student to assess oral communication skills. The results
    assist teachers in determining the appropriate level and
    materials to use with each student.

2. LADO ENGLISH SERIES

The LADO English Series teaches th communicative skills
by introducing and practicing all structures in natural,
meaningful contexts. There are six levels in the series
and they take a student from a zero level knowledge of
English to basic facility in the four language skills.
Dialogues at the end of each unit provide speaking
practice, and refresher units test material previously
introduced. Reading and listening exercises are followed
by multiple-choice questions or closure drills to test
comprehension. Students review those modules which
correspond to items missed on the test.

Teachers' Evaluation of the LADO English Series

The results from the LADO English Series assessment tests
allow the teacher to determine students' strengths and
weaknesses, to establish instructional levels, and to
identify remediation areas.

Adaptations of the series for handicapped adults include
oral presentations, use of books, take-home materials, or
working with a student on a one-to-one basis.

ESL teachers find that students with a better educational
background tend to do better on the test while those
students who lack educational experiences often become
frustrated. The oral test allows many students to
perform better since they are not expected to spell or
write correctly.

Teachers consider the series an excellent tool to use
with students since it assesses students' strengths,
weaknesses, and their knowledge of the material.
However, the series favors an aural-oral approach to ESL.
Some teachers would like to see more written skills in
the series.

3. NEW HORIZONS IN ENGLISH

    The New Horizons in English series provides content
    emphasizing motivation, reinforcement, and development of
    communicative competence. The series is graded from 7th
    through adult with six levels. A placement test package
    is also available.

    ### Teachers' Evaluation of New Horizons in English

    The primary purpose of the New Horizons in English
    placement tests is to determine class placement.
    ESL teachers also use this series to assess students'
    strengths and weaknesses as well as to provide
    information on how to group students according to their
    abilities.

SUMMARY OF TESTS USED

ESL

TEST	PUBLISHER	PERCENTAGE * USING TEST FOR	PERCENTAGE * ADMINISTERING TEST ON	TEST GIVEN BY &* HOW IT WAS GIVEN	TIME NEEDED * TO GIVE TEST	TEST WAS * GIVEN	RESULTS USED TO * OBTAIN GRADE, INSTRUCTIONAL LEVEL
LADO English Series	Regents Publishing Company	Ongoing Mastery 44 Placement 33	1st Day 44	Teacher 100 Group 89	1 hour 44	English 100 Written 89	Instr. L. 44
New horizons in English *1	Addison-Wesley	Placement 3	1st Day 3	Teacher 3 Individually 3	1/2 Hour 3	English 3 Oral 3	G. E. 1 Instr. L. 1
Laubach Way To Reading *1	New Reader's Press	Placement 2	1st Day 2	Teacher 3 Group	1/2 Hour 2	English 3 Written 2	Instr. L. 3
ESLOA-Oral Assessment *1	Literacy Volunteers of America	Placement 2	1st Week 2	Teacher 2 Individually 2	30-60 Min 2	English 2 Oral 2	Instr. L. 2
ESL Placement *1	Texas A & I	Placement 2	1st Day 2	Teacher 2 Individually 2	1 Hour 2	English 2 Spanish 2 Written 2	G. E. 1 Instr. L. 1
Walsh ESL Placement *1	Texas A & I	Placement 2	1st Day 2	Teacher 2 Individually 2	30 Min. 2	English 2 Oral 2	Instr. L. 2
Wide Range *1 Achievement Test/R	Guidance Associates	Placement 2	1st Day 2	Counselor 1 Teacher 1 Individually 2	30 Min. 2	English 2 Written 2	Instr. L. 2
Botell Reading *1 Inventory	Steck-Vaughn	Placement 1	1st Day 1	Staff 1	30 Min. 1	English 1 Written 1	G. E. 1
English For a *1 Changing World	Scott-Foresman	Placement 1 Pretest 1	1st Day 1	Teacher 1 Individually 1	30 Min. 1	English 1 Written 1	Instr. L. 1
Gates-Mac Ginitie *1 Reading	Riverside	Placement 1 Pretest 1	1st Day 1	Teacher 1 Individually 1	Not Timed 1	English 1 Written 1	Instr. L. 1
Introduction to *1 English	Cambridge	Placement 1 Pretest 1	1st Day	Teacher 1 Individually 1	1 Hour 1	English 1 Written 1	Instr. L. 1

* Percentages given are based on the number of teachers reviewing the specific test and how they are using the test. Because multiple answers were possible (i e , test could be used for placement, pretest and posttest), percentages given may not equal 100%

*1 Five or less teachers reviewed this test; numbers given are by response, not percentage

SUMMARY OF TESTS USED

ESL

(Continued)

TEST	PUBLISHER	PERCENTAGE USING TEST FOR *	PERCENTAGE ADMINISTERING TEST ON *	TEST GIVEN BY & HOW IT WAS GIVEN *	TIME NEEDED TO GIVE TEST *	TEST WAS GIVEN *	RESULTS USED TO OBTAIN GRADE, INSTRUCTIONAL LEVEL *
Mattran Oral Inventory *1	TRENDS, U.ofNebraska-Lincoln	Placement 1	1st Day 1	Teacher Individually 1	30 Min. 1	English 1 Oral 1	Instr. L. 1
Modern American English (Dixson) *1	Regents Publishing Company	Placement 1 Pre/Posttest 1	1st and Last Day 1	Teacher Individually 1	1-1/2 Hours 1	English 1 Written 1	Instr. L. 1
New Perspectives *1	Delta Systems Co., Inc.	Pre/Posttest 1	After Studing 1	Teacher 1 Group 1	1 Hour 1	English 1 Oral 1 Written 1	G. E 1
Official GED Practice Tests *1	Cambridge	Placement 1	1st Day 1	Teacher Individually 1	Varies 1	English 1 Written 1	Instr. L. 1
Passage to ESL Literacy *1	Delta Systems Co., Inc.	Placement 1	1st Day 1	Staff 1 Ind./Group 1	30 Min. 1	English 1 Written 1	Instr. L. 1
Placement Survey for ABE *1	Steck-Vaughn	Placement 1 Posttest 1	Varies 1	Teacher Individually 1	2 + Hours 1	English 1 Written 1	Instr. L. 1
READ *1	Literacy Volunteers of America	Placement 1 Pre/Posttest 1	1st Day 1	Teacher Individually 1	Not Timed 1	English 1 Oral 1	Instr. L. 1
Side by Side *1	Cambridge (Molinsky, Bliss)	Posttest 1	After Studing 1	Teacher 1 Group 1	2 + Hours 1	English 1 Written 1	Instr. L. 1
Students Needs Assessment *1	TESOL Newsletter (W-1985)	Assessment 1	1st Day 1	Staff 1 Ind./Group 1	30 Min. 1	English 1 Native 1	Instr. L. 1
Test of English As a Foreign *1	Education Testing Service	Pre/Posttest 1	1st Week 1 Monthly 1	Teacher Group 1	1-1/2 Hours 1	English 1 Written 1	Instr. L. 1
ESL Placement Test	Christine Lee Trends	Placement 1 Pretest 1	1st Day 1	Teacher Individually 1	1 Hour 1	English 1 Oral/Written 1	Instr. L. 1

*1Five or less teachers reviewed this test; numbers given are by response, not percentage.

SUMMARY OF TESTS USED

ESL

	%	Lado English Series *	New Horizons in English *	Laubach Way to Reading *	ESLOR	ESL Placement *	Walsh ESL Placement	WRAT-R	Botell Reading Invent. *	English for Chang. World	Gates-MacGinitie Reading	Introduction to English	Mattran Oral Inventory	Modern American English	New Perspectives	Official GED Prac	Passage to ESL Literacy *	Placement Survey/ABE	READ *	Side by Side *	Students Needs Assess *	Test of Eng. as Foreign Lang. *	ESL Placement Test *
		Percentage of Teachers Rating "Very Good to Excellent" on the Survey																					
a. Easy to administer and understand	67	3	3	2	2	2	2	0	0	1	1	1	1	0	1	1	1	0	0	1	0	1
b. Easy to grade	56	3	3	2	2	2	2	1	1	1	1	1	1	1	1	1	1	0	1	1	0	1
c. Easy to interpret and use results	44	3	2	2	0	2	2	1	0	1	1	1	0	1	1	1	0	0	0	1	0	1
d. Appropriate for your students	67	1	3	2	0	2	1	0	0	1	1	1	0	1	1	1	0	0	0	1	0	1
e. Length of time appropriate for admin	67	1	2	2	1	1	2	0	0	1	0	1	0	1	1	0	1	0	0	0	0	1
f. Length of time appropriate for getting back results	56	2	2	2	1	2	1	1	1	1	0	1	1	1	1	1	1	1	0	0	0	1
g. Correlates with materials and curriculum	89	2	3	2	0	1	1	1	0	1	1	0	1	1	1	1	0	0	1	1	0	1
h. Cost effective (to administer, duplicate)	83	1	3	2	0	2	0	1	1	1	1	1	1	1	1	0	0	0	0	1	0	1

* Five or less teachers reviewed this test; numbers given
are by response, not percentage.

98

99

ESL teachers feel there is a need for assessment instruments that assess oral as well as written proficiency. They would like to see a vocabulary test developed that would assess a student's vocabulary knowledge and reading ability in the student's native language (to determine literacy). Tests on terms that are job related would also be beneficial. Due to the nature of the class, oral proficiency tests are administered individually and are time consuming; therefore, teachers would like an easy assessment instrument to use.

GENERAL

EDUCATION

DEVELOPMENT

(GED)

GENERAL EDUCATION DEVELOPMENT (GED)

General Education Development (GED) is an education program designed for competitive and successful results on the GED test for acquisition of a Certificate of High School Equivalency (equivalent to grades 9-12). In the area of GED, 36 different tests were identified by the 210 surveys returned. From these surveys, 25 teachers indicated they used tests which they had developed for their own classrooms.

The following assessment instruments are those most frequently identified by the surveyed GED teachers:

Official GED Practice Test (Cambridge Publishing Company)

Tests of Adult Basic Education (CTB/McGraw Hill)

General Educational Performance Index (Steck-Vaughn)

Wide Range Achievement Tests (Jastrak Associates)

Passing the GED Predictor Test (Scott-Foresman Publishing Company)

The Five Subject Area GED Tests (Cambridge Publishing Company)

Adult Basic Learning Examination (Psychological Corporation)

1. OFFICIAL GED PRACTICE TESTS

The most popular assessment instrument used in GED
classes is the Official GED Practice Tests. The GED
tests make it possible for qualified individuals to earn
high school equivalency diplomas or certificates. They
are designed to measure the major outcomes and skills
generally associated with four years of regular high
school instruction. The tests use a multiple-choice
question format for each of the five subject areas:
writing skills, reading skills, social studies, science,
and mathematics.

There are two official GED Practice Test forms (Forms A
and B) to help students determine their readiness in
taking the full length GED tests. The Practice Test
forms contain a representative sampling of the types of
questions and content areas covered in the full length
tests. Results are reviewed by the instructor and
provide an estimate of a student's probable degree of
success on the full length tests. Results will also
identify subject area clusters in which instruction and
further study may be necessary.

Teachers adapted the test for handicapped adults by
administering it orally and/or individually and by
providing a taped version for those students with reading
problems. GED teachers use the test results to identify
strengths and weaknesses of students, to identify program
placement, to determine student levels, to develop lesson
plans, to assess skill mastery, and to provide
appropriate materials.

Teachers indicate that older students who have not been
in the classroom for a number of years sometimes have
difficulty with math, science, and writing. Students
with limited English skills also have difficulty with the
test. Teachers indicate that some colloquial differences
do ex st; Blacks and low income students seem to
experience more problems with the test. However, the
test does allow for students to practice test-taking
skills by using the two forms of the practice test in an
effort to reduce anxiety levels.

The Official GED Practice Tests allow students to assess
their own preparedness for the GED test. Those students
who do well on a subtest are ready to take the GED test
at a testing center with no further instruction. Teachers
feel that the pract' tests should be given prior to the
actual test so that . idents can judge time limits and
know how fast to work in a given area. The practice
tests are great confidence builders and results are
predictive of probable results on the actual test.

2. TESTS OF ADULT BASIC EDUCATION (TABE)

The second most popular assessment instrument for GED classes is the TABE (Tests of Adult Basic Education). The TABE consists of achievement tests in reading, mathematics, and language. The test items are adapted from the 1970 edition of the California Achievement Test (CAT 70) and reflect language and content appropriate for adults. They are designed to measure the understanding and application of conventions and principles, not to measure specific knowledge or recall of facts.

Test results are used to provide instructional information about a student's achievement level in reading, mathematics, and language, to identify strengths and weaknesses, to measure growth after skill instruction, and to aid the teacher in preparing an individualized instructional program. The use of a Locator Test which is designed to identify the appropriate TABE level for students is recommended. This test consists of both vocabulary and mathematics computation.

The TABE itself has three levels: E (easy, grades 2.5 - 4.9), M (medium, grades 4.5 - 6.9), and D (difficult, grades 6.5 - 8.9). Based on the student's performance on the Locator Test, the teacher selects the appropriate test for the student's skill level. Norms have been established (based on the correlation of the TABE to the CAT) and provide raw scores, grade equivalent scores, and scale scores.

The TABE is designed for hand scoring and is both quick and easy to score. It provides the teacher with immediate information essential in identifying an instructional program appropriate for the student.

Teachers' Evaluation of the Tests of Adult Basic Education

Teachers generally feel that the TABE is a good assessment tool in that it assists in identifying appropriate class placement, selection of appropriate materials, focuses on strengths and weaknesses, in development of group assignments and lesson plans, and appropriate textbook selection.

Most of the teachers indicate they feel the test is a good instrument to assess students' strengths and weaknesses; however, the instrument is long and the time

limits cause anxiety for some students. The test is excellent
for determining program placement for GED, ABE, and CBHS
students. It helps teachers determine where to begin
remediation with students and where to place them on a
curriculum continuum.

3. GENERAL EDUCATIONAL PERFORMANCE INDEX (GEPI)

The General Educational Performance Index is a tool used
to assess GED preparedness. The test measures the
student's underctanding of topics in the following areas:
writing skills, reading skills, mathematics, social
studies, and science. The test scores are designed to
indicate the level of understanding and to predict
probable success on a GED test. Results aid teachers in
identifying areas in need of remediation. It is also an
excellent tool which can be used to increase students'
confidence in performing well on a GED test.

The reading level for the GEPI ranges from 8th to 12th
grade. There are two forms of the test (Forms AA and
BB). The test is hand scored using scoring templates.

Teachers' Evaluation of the General Educational Performance Index

Teachers generally feel that the GEPI results assist in
identifying students' strengths and weaknesses, areas in
need of remediation, determining student groups and class
placement, as well as predicting readiness to take the
GED test. GED teachers have adapted this test for
handicappea adults by administering it orally or having
the student dictate his/her responses to someone else.

Teachers indicate that most students perform well on the
test after the initial preparation period. However,
Blacks and Hispanic students tend to read slower and
therefore take longer to complete the test. Older
students are willing to take this type of test in order
to "waste" less time in class because of jobs or other
responsibilities. Teachers note that those students who
are familiar with testing procedures do better on the
test.

4.   WIDE RANGE ACHIEVEMENT TEST (WRAT)

The Wide Range Achievement Test (WRAT) is primarily used
as a screening tool to assist in diagnosis of
disabilities, in determining instructional levels, and
to assist in grouping students. There are two levels of
the WRAT: Level I is designed for use with students ages
5.0 through 11.11, but is also used in assessing adult
learners; Level II is designed for use with students 12.0
years through adult. The WRAT is designed to be hand
scored and provides grade equivalent scores, standard
scores, and percentile ranks for each of the subtests
(reading, spelling, and arithmetic).

Teachers' Evaluation of the WRAT

Test results assist teachers in identifying class
placement, abilities, and learning materials, in
determining students' strengths and weaknesses, and in
developing lesson plans. Teachers also feel that the
WRAT is an excellent tool for assessing students'
weaknesses in arithmetic and in determining their overall
level of achievement.

Teachers note that foreign students experience some
difficulty with the reading section. However, older
students and foreign students have better basic skills in
math.

Teachers have adapted this test for handicapped adults
either by administering the test orally or by having the
student tested individually by an aide.

107

5. PASSING THE GED - PREDICTOR TESTS

This is a complete preparation program for the current
GED test. The manual utilizes previously learned skills
for its instructional format. The program includes test
taking tips developing test taking strategies in order to
reduce anxiety. The program includes pre and posttests
to assess students' progress. An answer key,
explanations, and information on how to determine a GED
score is provided.

Teachers' Evaluation of the GED Predictor Tests

Teachers can use the results of the GED Predictor Tests
to assess student strengths and weaknesses, to identify
study areas, and to develop individualized instructional
programs. The results will also give feedback to the
students as to how well they would perform on a similar
GED test.

This test is administered orally to handicapped students
when necessary.

Teachers feel that students with a reading level of 10.0+
perform better because of higher reading competency and
vocabulary level. If students have a limited education1
background or are older, they seem to experience some
difficulty initially. However, after remediation they
are generally able to pass the posttest. The tests are
also a good tool to build student confidence; these tests
will assist the student in raising his/her overall GED
score.

Even though teachers consider the instrument a valid tool
for assessing students' readiness for the GED test,
teachers feel the test does not readily identify weak
areas. Teachers must use an item analysis approach to
identify weaknesses, and this is a time consuming
activity.

6. THE FIVE SUBJECT AREA GED TEXTS

The Five Subject Area GED Texts contain pretests,
comprehensive units of instruction, examples of specific
subskills in GED context, pages of practice
reinforcement, simulated GED tests, test item analysis
charts, and score analysis charts. This is a
comprehensive review manual. Diagnostic/prescriptive
pretests are used to ensure correct placement in the
textbook for students. The readability level for the
instructional text is 6.0 - 7.0 which allows students to
focus on skill acquisition. Simulated GED tests are also
provided to assess learning and test readiness.

Teachers' Evaluation of the Five Subject Area GED Texts

The results of the Five Subject Area GED Texts assist
teachers in determining the appropriate place to begin
instruction. Teachers indicate that the tests correlate
with the subject matter presented, allow for students to
monitor their own progress, and determine readiness for
the GED test.

The only adaptation teachers suggested for handicapped
students is to have the student respond orally to the
questions and an aide or teacher mark the student's
responses on the answer sheet.

Teachers find that foreign students tend to perform
better on math skills; however, they have difficulty with
the reading passages. Results from the tests assist
students in setting study goals for themselves and
identify further areas of study.

7. ADULT BASIC LEARNING EXAMINATION (ABLE)

The Adult Basic Learning Examination is a battery of tests designed to measure the level of educational achievement among adults. The test items are adult-oriented, presented in a non-threatening format, and cover the basic skills in reading, mathematics, and the language arts.

The ABLE consists of three levels: Level I is for adults who have had from 1 to 4 years of formal education (the primary grades); Level II is for adults who have had from 5 to 8 years of schooling (the intermediate grades); and Level III is for adults who have had at least eight years of schooling but who have not graduated from high school (the high school years).

The SelectABLE is a screening device used in conjunction with the ABLE. The SelectABLE determines which level of the ABLE test to administer to a student. It contains 45 multiple-choice questions covering verbal and numerical concepts.

Students record their answers to the SelectABLE and the ABLE on a Ready Score answer sheet which provides teachers with immediate score results. The ABLE provides raw scores, scale scores, percentile ranks, stanines, and normal curve equivalents. The ABLE test has been equated to the Stanford Achievement Test series and has norms which have been developed for use with adult students.

Teachers' Evaluation of the Adult Basic Learning Examination

GED teachers generally use the ABLE results to identify strengths and weaknesses of students, to identify instructional levels, to provide appropriate level materials, and to determine if a student is ready to take a GED practice test. Teachers feel the ABLE is a good instrument for identifying student placement in a program and that it gives a very accurate account of a student's abilities. The ABLE test is easy to administer and score and therefore provides quick feedback to the student and provides teachers with the ability to prescribe a study program immediately.

The test can be administered orally to assist handicapped adults.

GED teachers feel there is a need for a backup assessment instrument to verify the initial placement. They are concerned about the lack of material or assessment instruments which relate to everyday survival skills. Another area of concern is the interpretation of test results to appropriately place students in the correct level. Some teachers feel there is a need to provide assessment instruments that will evaluate a student's writing proficiency. Many lower level students need assistance and motivation to continue in their studies as well as assessments to determine individual students' learning styles.

SUMMARY OF TESTS USED
GED

TEST	PUBLISHER	PERCENTAGE USING TEST FOR	PERCENTAGE ADMINISTERING TEST ON	TEST GIVEN BY & HOW IT WAS GIVEN	TIME NEEDED TO GIVE TEST	TEST WAS GIVEN	RESULTS USED TO OBTAIN GRADE, INSTRUCTION/LEVEL
Official GED Practice Tests	Cambridge	Pretest 70 / Posttest 68	1st Day 34 / Prior to GED 37	Teacher 93 / Individually 93	Over 2 Hours 31	English 100 / Written 100	Instr. L. 63 / Percentile 11
TABE	CTB/McGraw-Hill	Placement 91 / Pretest 67	1st Day 91	Teacher 100 / Individually 76	Over 2 Hours 33	English 100 / Written 99	G. E. 67 / Instr. L. 52
General Educational Performance Index	Steck-Vaughn	Pretest 67 / Posttest 73	1st Day 50	Teacher 93 / Individually 97	More than one sitting 43	English 100 / Written 100	Instr. L. 60 / Percentile 47
WRAT	Guidance Associates	Placement 100 / Pretest 65	1st Day 80	Teacher 85 / Individually 85	1 Hour 45	English 100 / Written 95	G. E. 60 / Instr. L. 50
Passing the GED Predictor Tests	Scott Foresman	Pretest 75 / Posttest 70	Prior/GED 40 / 1st Day 30	Teacher 100 / Individually 80	1 Hour 35	English 100 / Written 95	Instr. L. 100 / Percentile 15
The Five Subject Area GED Texts	Cambridge	Pretest 85 / Posttest 77	1st Week 31 / A certain week 31	Teacher 100 / Individually 69	1 Hour 46	English 100 / Written 100	Instr. L. 77
ABLE	Psychological Corp.	Placement 89 / Pretest 44	1st Day 100	Teacher 100 / Individually 100	1 Hour 56	English 100 / Written 100	Instr. L. 67 / G. E. 56
TABE Locator	CTB/McGraw-Hill	Placement 100	1st Day 100	Teacher 100	Less than 30 Min. 80%	English 100 / Written 100	Instr. L. 100
Gates-MacGinitie *1	Riverside	Placement 4 / Pretest 3	1st Day 4	Teacher 4 / Individually 4	1-1/2 Hour 3	English 4 / Written 4	G. E. 2 / Instr. L. 2
Reading for Understanding *1	Science Research Associates	Placement 4	1st Day 4	Teacher 4 / Individually 4	Less than 30 Min 2	English 4 / Written 4	G. E. 4 / Instr. L. 1
Reading Progress Scale *1	Revrac Publications	Placement 4	1st Day 4	Teacher 3 / Individually 3	Less than 30 Min. 3	English 4 / Written 4	Instr. L. 2 / G. E. 2
Basic Essentials of Math *1	Steck-Vaughn	Placement 2	1st Day 1 / 1st Week 1	Teacher 2 / Group 2	1-1/2 hours 2	English 2 / Written 2	Instr. L. 1 / G. E. 1
CAT *1	CTB/McGraw-Hill	Placement 3 / Posttest 2	1st Day 3	Teacher 2 / Individually 2	Not Timed 2	English 2 / Written 2	G. E. 2
Computer Drill & Instruction:Mathematics Level D *1	Science Research Associates	Placement 2	1st Week 2	Teacher 2 / Individually 2	1 Hour 2	English 2 / Computer 2	Instr. L. 2
GED Test *1	Dallas ISD	Pretest 2 / Posttest 2 / Attitude 2	1st Week 2	Teacher 2 / Individually and Group 2	1 Hour to 1-1/2 Hours 2	English 2 / Written 2	Percentile 2
Cambridge Instruction to English (1972)	Cambridge	Placement 2 / Pretest 2	1st Day 1 / Certain Week 1	Teacher 2 / Individually 2	Not Timed 1 / 1 Hour 1	English 2 / Written 2	Instr. L. 2
Pre-GED Programing Math Skills *1	Cambridge	Ongoing Mastery 2 / Placement 1	1st Week 1 / Monthly 1	Teacher/Aide 2 / Individually 2	1 Hour 2	English 2 / Written 2	Instr. L. 2
Working with Numbers *1	Steck-Vaughn	Placement 2	1st Day 1 / 1 Week 1	Teacher 1 / Indiv./Group 1	No Time Limit 1	English 2 / Written 2	G. E. 2
Adult Education Pre-Test *1	CTB/McGraw-Hill	Placement 1	1st Day 1	Teacher 1 / Individually 1	1-1-1/2 Hours 1	English 1 / Written 1	Instr. L. 1

* Percentages given are based on the number of teachers reviewing the specific test and how they are using the test. Because multiple answers were possible (i.e., test could be used for placement, pretest and posttest), percentages given may not equal 100.

*1 ...ess teachers reviewed this test, numbers given are by response, not percentage

TEST	PUBLISHER	PERCENTAGE USING TEST FOR	PERCENTAGE ADMINISTERING TEST ON	TEST GIVEN BY & HOW IT WAS GIVEN	TIME NEEDED TO GIVE TEST	TEST WAS GIVEN	RESULTS USED TO OBTAIN GRADE, INSTRUCTIONAL LEVEL
Botell Reading Inventory (Form A) *1	Steck-Vaughn	Placement 1	1st Day 1	Teacher 1 Individually 1	Less than 30 Minutes 1	English 1 Written 1	G. E. 1
English Essentials *1	Steck-Vaughn	Placement 1	1st Week 1	Teacher 1 Group 1	1-1/2 Hours to 2 Hours 1	English 1 Written 1	G. E. 1
GED 100 *1	Steck-Vaughn	Placement 1	1st Week 1	Teacher 1 Individually 1	Not Timed 1	English 1 Written 1	Percentile 1
High School Equivalency Exam *1	Cambridge	Placement 1	1st Day 1	Teacher 1 Individually 1	1 Hours to 1-1/2 Hours 1	English 1 Written 1	Instr. L. 1
Math *1	ESC-Region 9	Placement 1	1st Day 1	Teacher 1 Individually 1	1 Hour 1	English 1 Written 1	Percentile 1
New GED: How to Prepare for the High School Equivalency Exam *1	Contemporary	Placement 1	1st Day 1	Teacher 1 Individually 1	More than one sitting 1	English 1 Written 1	Instr. L. 1
Reading and Writing Skills *1	ESC-Region 9	Placement 1	1st Day 1	Teacher 1 Individually 1	1 Hour 1	English 1 Written 1	Percentile 1
Slosson Oral Reading Test *1	Slosson Educational Publications, Inc.	Placement 1	1st Week 1	Teacher 1 Individually 1	Less than 30 Minutes 1	English 1 Oral 1	G. E. 1
San Diego Quick Assessment *1	TRENDS	Placement 1	1st Day 1	Teacher 1 Individually 1	Less than 30 Minutes 1	English 1 Oral 1	Instr. L. 1
Science *1	ESC-Region 9	Placement 1	1st Day 1	Teacher 1 Individually 1	1 Hour 1	English 1 Written 1	Percentile 1
Social Studies *1	ESC-Region 9	Placement 1	1st Day 1	Teacher 1 Individually 1	1 Hour 1	English 1 Written 1	Percentile 1
Writing Skills (Preparation for High Equivalency Exam) *1	Steck-Vaughn	Placement 1	1st Day 1	Teacher 1 Individually 1	1-1/2 Hours to 2 Hours 1	English 1 Written 1	Instr. L. 1

*1 Five or less teachers reviewed this test, numbers given are by response, not percentage.

SUMMARY OF TESTS USED
GED

	Official GED Practice Test	TABE	Gen. Ed. Perform Index	?AT	Passing the GED Predictor Tests	The Five Subject Areas of GED Texts	ABLE	* Gates-MacGinitie	* Reading for Understanding	Reading Prog. Scale	TABE-Locator	* Basic Essentials of Math	* CAT	* Computer Drill/Instr. Math	* GED
	Percentage of Teachers Rating "Very Good to Excellent" on the Survey														
a. Easy to administer and understand	67	76	100	75	100	92	89	4	5	4	5	1	0	2	0
b. Easy to grade	65	91	97	90	100	92	100	4	5	4	5	0	0	2	2
c. Easy to interpret and use results	62	88	87	80	83	62	100	4	5	4	4	1	0	2	2
d. Appropriate for your students	51	64	83	65	58	46	100	4	4	2	4	1	0	2	0
e. Length of time appropriate for admin	57	79	80	65	83	62	89	4	5	3	5	1	0	2	0
f. Length of time appropriate for getting back results	63	97	97	90	100	85	100	4	5	4	5	1	0	2	2
g. Correlates with materials and curriculum	55	67	73	70	100	77	67	4	4	3	4	1	0	2	0
h. Cost effective (to administer, duplicate)	54	82	80	60	100	54	89	2	5	3	5	1	0	2	2

* Five or less teachers reviewed this test, numbers given are by response, not percentage.

114

SUMMARY OF TESTS USED
GED (Continued)

	*Cambridge Introduction to English (1972)	*Pre-GED Prog. in Math Skills	*Working with Numbers	*Adult Education - Pretest	*Botell Reading inventory	*English Essentials	*GED-100	*High School Equivalency Exam	* Math	*New GED	*Reading & Writing Skills	*Slosson Oral Reading Test	*San Diego Quick Assess.	*Science	*Social Studies	*Writing Skills
	Percentage of Teachers Rating "Very Good to Excellent" on the Survey															
a. Easy to administer and understand	2	1	2	1	0	0	0	1	1	1	1	1	1	1	1	0
b. Easy to grade	2	0	2	1	1	0	1	1	1	2	1	1	1	1	1	0
c. Easy to interpret and use results	2	1	2	1	1	0	1	1	1	2	1	1	1	1	1	1
d. Appropriate for your students	2	0	2	1	0	0	0	0	1	1	1	1	1	1	1	1
e. Length of time appropriate for admin.	1	0	2	0	0	0	0	0	1	2	1	1	1	1	1	0
f. Length of time appropriate for getting back results	1	1	2	1	1	0	1	1	1	2	1	1	1	1	1	1
g. Correlates with materials and curriculum	2	1	2	1	1	0	1	0	1	2	1	1	1	1	1	1
h. Cost effective (to administer, duplicate)	2	0	2	1	1	0	0	0	1	0	1	1	1	1	1	1

*[1] Five or less teachers reviewed this test, numbers given are by response, not percentage

COMPETENCY BASED

. HIGH SCHJOL

(CBHS)

COMPETENCY BASED HIGH SCHOOL

The Competency Based High School Program is an educational program offering students the opportunity to earn a high school diploma. The program concentrates on five areas identified as necessary for functional competence in today's society: occupational knowledge, consumer economics, health, government and law, and community.

In CBHS, teachers responding to the survey identified eight publisher-developed tests; an even greater percentage of the teachers use teacher-made tests in their classrooms. The Test of Adult Basic Education (TABE) is the most frequently used commercial assessment instrument identified.

TESTS OF ADULT BASIC EDUCATION

The TABE (Tests of Adult Basic Education) consists of achievement tests in reading, mathematics, and language. The test items are adapted from the 1970 edition of the California Achievement Tests (CAT 70) and reflect language and content appropriate for adults. They measure the understanding and application of conventions and principles, not specific knowledge or recall of facts.

Test results are used to provide instructional information about a student's achievement level in reading, mathematics, and language, to identify strengths and weaknesses, to measure growth after skill instruction, and to assist the teacher in preparing an individualized instructional program. The use of a Locator Test which is designed to identify the appropriate TABE level for students is recommended. This test consists of both vocabulary and mathematics computation.

There are three levels of TABE: E (easy, grades 2.5 - 4.9), M (medium, grades 4.5 - 6.9), and D (difficult, grades 6.5 - 8.9). Based on a student's performance on the Locator Test, the teacher selects a test appropriate to the student's skill level. Norms have been established (based on the correlation of the TABE to the CAT) and provide raw scores, grade equivalent scores, and scale scores.

The TABE is designed for hand scoring and is both quick and easy to score. This provides the teacher with immediate information essential in identifying an instructional program appropriate for the student.

Teachers' Evaluation of the Tests of Adult Basic Education

The TABE results assist teachers in identifying grade placement, students' strengths and weaknesses, and areas in need of further study. Teachers indicate that students who have remained in a school setting for a longer period of time tend to perform better on the test. Students who have been out of school five or six years tend to score lower because they have forgotten previously learned skills.

The TABE can be administered orally to handicapped adults.

Teachers find the TABE a good instrument to use for placing students in ABE, GED, or ESL classes. The instrument readily identifies reading and math skills.

SUMMARY OF TESTS USED

CBHS

TEST		PERCENTAGE * USING TEST FOR	PERCENTAGE * ADMINISTERING TEST ON	TEST GIVEN BY & * HOW IT WAS GIVEN	TIME NEEDED * TO GIVE TEST	TEST WAS * GIVEN	RESULTS USED TO * OBTAIN GRADE, INSTRUCTIONAL LEVEL
TABE	CTB-McGraw Hill	Placement 92 / Pretest 60	1st Day 100	Counselor 80 / Group 80	2 + Hours 80	English 100 / Written 100	G. E. 60 / Instr. L. 60
English for a Changing World *1	Scott Foresman	Placement 2	1st Day 2	Teacher 2 / Individually 2	30 Min. 2	English 2 / Oral 2	Instr. L. 1
APL	American College Testing Program	Placement 1	1st Day 1	Staff 1 / Individually 1	2 + hours 1	English 1 / Written 1	G. E. 1
New Voyages in English	Loyola University Press	Placement 1	1st Day 1	Teacher 1 / Individually 1 / Group 1	1 Hour 1	English 1 / Written 1 / Oral 1	Instr. L. 1
TEAMS Exit Level	TEAMS	Pretest 1	Twice/Year 1	Counselor 1 / Group 1	No Time Limit 1	English 1 / Written 1	Instr. L. 1
WRAT	Guidance Associates	Placement 1 / Pretest 1	1st Day 1	Staff 1 / Individually 1	No Time Limit 1	Written 1 / English 1 / Oral 1	Instr. L. 1

* Percentages given are based on the number of teachers reviewing the specific test and how they are using the test   Because multiple answers were possible (i.e , test could be used for placement, pretest and posttest), percentages given may not equal 100%

*1 Five or less teachers reviewed this test, numbers given are by response, not percentages

120

SUMMARY OF TESTS USED

CBHS

	TABE	English for a Changing World *	APL *	New Voyages in English *	Teams Exit Level *	WRAT *
		Percentage of Teachers Rating "Very Good to Excellent" on the Survey				
a. Easy to administer and understand	50	1	1	1	1	1
b. Easy to grade	75	1	1	1	0	1
c. Easy to interpret and use results	75	1	0	1	1	1
d. Appropriate for your students	50	1	0	1	0	0
e. Length of time appropriate for admin.	75	1	1	1	0	1
f. Length of time appropriate for getting back results	75	1	1	1	0	0
g. Correlates with materials and curriculum	75	1	1	1	1	1
h. Cost effective (to administer, duplicate)	75	1	1	1	1	0

* Five or less teachers reviewed this test, numbers given
are by response, not percentage.

The majority of tests evaluated for the Competency Based High School area are teacher-made assessment instruments. These instruments are used to determine placement of students, to assess prerequisite skills, and/or to assess mastery of skills learned with a posttest instrument. The teachers prefer to administer the test themselves. Time limits for these tests range from less than thirty minutes to one hour.

122

OTHER EDUCATION

SETTINGS

OTHER EDUCATION SETTINGS

Teachers from education settings other than ESL, ABE, GED, and CBHS also use assessments with their students. Critiques from the following types of classes were received: AE Skills Center, Citizenship, College Reading Development Class, Literacy Class, LVN Pre-Admission, and Special Education.

AE SKILLS CENTER

Teachers responding to the survey from this type class indicated they use the TABE as a placement and on-going mastery instrument and to determine vocational interests. The results assist teachers in identifying grade placement and appropriate textbook placement. The TABE is a difficult test for ESL students and low level students; however, it is a good tool to use to develop individualized instructional programs.

CITIZENSHIP

Teacher-developed assessment instruments are generally used to assist students with citizenship preparedness. Practice sessions are given throughout the class period as a way to monitor on-going mastery.

COLLEGE READING DEVELOPMENT CLASS

The Comprehensive Test of Basic Skills Test (CTBS) was the only assessment instrument identified for College Reading Development Classes. It is used as a placement test, as a pretest, and as a posttest. Generally it determines class placement, students' strengths and weaknesses, and on-going mastery. Results are given in normal curve equivalent scores and percentile scores and provide feedback to the teacher and student as to how well the student performs in relation to a norm group.

LITERACY CLASSES

Survey respondents indicated teacher-developed assessment instruments for placement and pre-test purposes are used in Literacy Classes. The results assist teachers in identifying instructional levels and grade equivalents. They are administered individually.

LVN PRE-ADMISSION

LVN Pre-Admission classes generally use the TABE test as a means of determining readiness for the LVN program, especially a student's math ability. The test is used for pretest and posttest assessment as well as for vocational interests. Results identify grade equivalents and appropriate material placement.

SPECIAL EDUCATION

Teachers of Special Education classes who responded to the survey indicate they use several different assessment instruments. The Gates-MacGinitie Reading Test is used as a placement instrument and to monitor on-going mastery of skills. The results assist teachers in determining grade equivalents and instructional levels of students. The ABLE test is used by some teachers as a placement instrument to assess students' instructional level. The Official GED Practice Test is used to assess on-going skill mastery. Results are given in percentile scores and compare student performance to a norm group. This instrument can also be used to determine readiness for the actual GED test.

All teachers of special education classes responding to the survey feel it is important to use or develop assessment instruments that will adequately evaluate students who are working below or above the level of the assessment instruments currently being used.

RECOMMENDATIONS

RECOMMENDATIONS

The study upon which this handbook is based included a statewide survey of adult education teachers and directors; two mini-surveys and a discussion with directors at the October 1986 Directors' Meeting in Austin; discussions with teachers and administrators at regional adult educational meetings in Laredo, Galveston, and Dallas, a review of assessment literature, and observations and interviews with a sample of adult educators in conjunction with a pilot test of instruments in the San Antonio area. From these activities, and primarily from directors' and teachers' comments, the following recommendations are made:

1) Establish minimum competencies for each adult education level on a statewide basis so that there is consistency across adult education programs.

2) Encourage standardized testing procedures to promote accurate placement and evaluation, program credibility, and accountability.

3) Provide teacher training on techniques for conducting quick and accurate assessments and on strategies for using test results in planning individualized instruction.

4) Improve ESL measures in order to accurately assess skills in language arts as well as other instructional areas for limited English proficient students.

5) Increase the use of affective measures to assess students' self-concept, attitudes, and interests.

MINIMUM COMPETENCIES

"It would be helpful to have objectives or essential elements in order to know what it is a student should know before entering a different level." (survey response of a head teacher in GED); "What we need primarily is an identified set of standard criteria for placement and achievement testing." (supervisor).

Minimum competencies should be established on a statewide basis in adult education programs, especially in ABE and ESL; GED and CBHS programs already have clear entry and exit criteria. Over half of the directors responding to the survey agreed that it would be beneficial to develop criteria identifying minimum performance levels for skills which adults are expected to demonstrate and to apply the criteria consistently in programs across the state.

If statewide criteria were set, a student could go from one location to another and not have to start over with new materials,

new goals, new curriculum. He could go into a class at a predetermined level based on skills mastered at his previous site. Students should be able to go from one program to another in the same city or across the state and be able to pick up where they stopped working on a continuum of skills. Passing criteria should be the same in two different locations for similar performance.

A curriculum continuum would allow teachers and students to see where they have been and know where they are going. A continuum would contain major skills and prerequisite subskills and call for diagnostic measures and task analyses to determine the precise skill areas and levels in which a given student should be working.

A systematic assessment of mastery depends on an established continuum of skills. Without it, tests will continue to measure only general achievement in the various subtest areas. Mastery tests are based on specific instructional objectives which have been placed into a sequence and paced according to students' needs. Pacing and sequencing will continue to require teacher judgment; however, the basic framework of a skills continuum would set up milestones at which students can pass to the next level of work.

STANDARDIZED TESTS

The majority of respondents, both teachers and administrators, called for standardized tests. Several cautions were given also, but most educators prefer the benefits of standardized testing to unstructured random testing.

"The adult ed program needs much more consistency in all areas..." (director); "Standardized tests are necessary to determine what a student's needs are. This will prevent wasted time in the classroom for both the teacher and students." (teacher).

Respondents cited the need for standardized testing to facilitate standard reporting and accountability by all programs. Others mentioned the need for better information to place students into appropriate levels and materials. One person discussed the possibility of having standard performance criteria so that tests could be selected which match the curriculum. Comments from several teachers included criticisms of tests that do not match the curriculum.

Several educators addressed the fear of alienating students with long, threatening tests. One commented that he did not want to see adults under the same pressure as students face in public schools because many of them left school to get away from traditional pressures. Other problems mentioned in relation to standardized testing included the costs involved and the imitations of using only the grade equivalent score. (The latter is not a problem of standardized testing, but of score interpretation.)

TEACHER TRAINING

There should be increased teacher training in techniques of
conducting quick and accurate assessments and in using test results
to feed back into instruction. Survey responses called for more
training in selecting, administering, and using results of relevant
tests. With regard to relevancy, one respondent pointed out that
"there are many different kinds of students from one section of
Texas to the other; therefore, the kind of assessment instrument
will be determined by the clientele served." Others emphasized the
need to focus on individual student goals and not to force all
students to follow one goal path and to be tested with the same
instrument along that path. The more individualistic assessments
are to be, the more training teachers will want in selecting
appropriate instruments to meet unique student needs.

The kinds of training requested include: "Instruction in the use of
assessments and their interpretation;" "Seeing that testing is done
properly and fairly;" "Writing objectives and teacher-'ade tests;"
"Test interpretation and the use of tests for grouping for
remediation."

The Assessment Handbook addresses many of the topics requested for
training. However, ongoing technical assistance will be required
to build confidence in teachers to establish scoring criteria for
locally-made tests, to establish interrater reliability for scoring
oral and written language samples, to interpret results of formal
and informal testing, and to incorporate results in their
instructional program.

ESL MEASURES

"I would like to see some type of assessment for different levels
of ESL that would not be too complicated to give. I would like to
see it in the oral as well as the written form." "We need adequate
ESL assessments fcr placement of adults who speak English but who
do not read and ESL students who read English but whose oral skills
are low." (survey response)

There is a need for more and better ESL assessments to measure
language arts skills as well as other skills for students with
limited English proficiency. Very little testing is going on in
ESL classrooms and much of what is occurring is inappropriate.
Several educators complained about ESL materials and assessments
that assume that all ESL students are at the same skill level.
Apparently there are many ESL students in the state who are placed
at levels lower than they should be, based on language alone. Some
respondents called for testing skills in the student's native
language in order to separate results of skill measures from
results of language measures.

Most of the testing currently being done in ESL classes consists of informal oral conversations. Placement is accomplished by asking students a series of personal questions: "Where do you live?" and "Do you drive a car?" These questions make students feel comfortable in the initial stages of class because students very likely recognize simple questions in English. However, such questions do not constitute a pretest and it would be very difficult to determine gain in language acquisition based on informal questions alone.

ESL assessment is a special category of student testing and a comprehensive assessment program should reflect the full range of ESL instruction and include measures of skills and gains in oral language prcduction, reading, listening, and writing. Suggested measures of oral language are rated interviews with predetermined scoring criteria and structured orally read paragraphs, also with set scoring criteria. Oral language samples can be recorded on tape at the beginning of class and compared with samples taken during the course. Ongoing feedback can be obtained by teachers using oral dictation methods in class and monitoring student responses. Written samples can be scored holistically, based on predetermined criteria, to determine the extent to which students can organize their thoughts and the language used to express them; also language mechanics can be assessed through written paragraphs.

It is important to reiterate that language tests should be given in addition to tests in the basic skills. Students who have the skills to be in higher level classes should not be retained in lower levels based solely on their limited proficiency in English.

AFFECTIVE MEASURES

Many respondents mentioned the importance of enhancing student self-esteem and positive attitudes and are wary about activities, such as lengthy and frustrating tests, that may threaten those feelings. However, very few teachers are using affective measures in the classroom to assess student characteristics or to note changes that occur during the course. Several directors indicated on their survey forms that some teachers in their co-ops are using affective measures; however, no examples were cited by teachers surveyed - other than informal interviews conducted in ESL classes.

Teachers requested attitudinal measures and assessments of student interests. Effective instructional strategies focus around those things that are of particular interest to students. For example, a lesson using information on recipe cards to teach practical math concepts obviously has interest for persons who enjoy cooking; similarly, a lesson using automotive examples probably captures the attention of those interested in cars. The more information about students available to teachers, the more relevant and effective the lessons can be.

APPENDICES

SURVEY INSTRUMENT

	Test 1 Name of test: _____	Test 2 Name of test: _____
Author (Publisher/teacher-made):		
Form/level:		
Type of class where test is used: (check only one for each test entry)	____ GED ____ ABE ____ ESL ____ CBHS ____ Other (specify)	____ GED ____ ABE ____ ESL ____ CBHS ____ Other (specify)
If from a basal, series used:		
Type of test/how used: (check all that apply)	____ Placement ____ Pretest ____ Posttest ____ Attitude ____ Ongoing mastery ____ Vocational ____ Learning styles	____ Placement ____ Pretest ____ Posttest ____ Attitude ____ Ongoing mastery ____ Vocational ____ Learning styles
How the test is administered: When is it administered? (1st day, 1st week, etc.)		
By whom (e.g. teacher, aide)?		
Individually or in a group?		
Length of time to administer and whether or not given in one sitting		
Language of test (English only or in native language)?		
Oral or written?		
How do you have to adapt the test if given to physically/mentally handicapped students?		
What results are obtained? (grade equivalent, percentile, instructional level - ESL I, II, GED, ABE)		
How are you able to use the results in planning and teaching?		
Approximate number of students you have tested this year (1986-87)		
Please comment on any differences you have found in using this test with students of varying age, educational background, or native language.		

-114-

133

134

In evaluating the test, how would you rank the following on a scale of 1 to 5, with 1 being "poor" and 5 being "excellent"?	(Circle one) Test 1					(Circle one) Test 2				
	Poor	Not very good	Adequate	Very good	Excellent	Poor	Not very good	Adequate	Very good	Excellent
a. Easy to administer and understand	1	2	3	4	5	1	2	3	4	5
b. Easy to grade	1	2	3	4	5	1	2	3	4	5
c. Easy to interpret and use results	1	2	3	4	5	1	2	3	4	5
d. Appropriate for your students (instructional level, anxiety)	1	2	3	4	5	1	2	3	4	5
e. Length of time appropriate for administration	1	2	3	4	5	1	2	3	4	5
f. Length of time appropriate for getting back results	1	2	3	4	5	1	2	3	4	5
g. Correlates with materials and curriculum	1	2	3	4	5	1	2	3	4	5
h. Cost effective (to administer, duplicate, acquire test booklets or answer sheets)	1	2	3	4	5	1	2	3	4	5

General Comments.

What are your overall recommendations/ suggestions for using this test (e.g., strengths, weaknesses, use with certain students, use with curriculum, timing, limitations, etc.)

Please comment on any additional kinds or levels of assessments that would be helpful to you in planning and teaching your students:

Would you like to see the State adopt a set of standard criteria, objectives, or essential elements for Adult Education programs? (Please comment)

We would like to be able to contact you if we have further questions. Your Name:_____
Telephone Number during the day:(___)_____ in the evening: (___)_____
What is the most convenient time for you to be contacted:_____

-115-

135

Thank you so much for your cooperation and for contributing to the Assessment Models Project.

LIST OF PUBLISHERS

APPENDIX

Following is a list of publishers whose tests were identified
on the Assessment Model survey by Adult Education teachers
across the state:

Addison-Wesley Publishing Company
2725 Sand Hill Road
Menlo Park, California 94025

>   Southwestern Region
>   1815 Monetary Lane
>   Carrollton, Texas 75006
>   1-800-441-1438

Adult and Vocational Education
Lubbock ISD
1628 19th Street
Lubbock, Texas 79401
1-806-747-2641

APL Department
The American College Testing Program
P. O. Box 168
Iowa City, Iowa 52244

Barnell Loft, LTD
958 Church Street
Baldrin, New York 11510

Cambridge
The Adult Education Company
888 Seventh Avenue
New York, New York 10106
1-800-221-4764

Contemporary Books, Inc.
Joe Lauber
4714 Country Club View
Baytown, Texas 77520
1-713-424-8920

CTB/McGraw-Hill
1-800-538-9547

>   Jack D. Mayo, Ed.D.
>   Eastern Texas
>   1-214-581-6493

>   John . Cadena, M.Ed.
>   Northwestern Texas
>   1-817-429-9586

CTB/McGraw-Hill

Jerry R. Stephens, M.S.
Southwestern Texas
1-512-263-9628

Dallas ISD
Adult Education
5000 Oakland Avenue
Dallas, Texas   75215

Delta Systems Company, Inc.
570 Rock Road Drive, Unit H
Dundee, Illinos   60118
1-800-323-8270

Education Service Center, Region 9
301 Loop 11
Wichita Falls, Texas   76305
1-817-322-6928

Educational Testing Services
Princeton, New Jersey   08541-0001

Guid nce Associates of Delaware, Inc.
1526 Gilpin Avenue
Wilmington, Delaware   19806

Literacy Volunteers of America, Inc.
6th Floor, Midtown Plaza
Syracuse, New York   13210

New Reader's Press
Box 131
Syracuse, New York   13210

Psychological Corporation
1-800-228-752

S. E. (Gene) Baird
Northeastern Texas
7243 Heathermore Drive
Dallas, Texas   78248
1-214-223-3456

Marilyn J. Scelfo
Eastern Texas
10526 C North Oak Hills Parkway
Baton Rouge, Louisiana   70810
1-504-7690-0278

Psychological Corporation

William P. Spiers
Southern Texas
Rt. 10, Box 9F
New Braunfels, Te as 78130
1-512-438-3067

John P. Yates
Central, Northern, Western Texas
1228 Dogwood Drive
Benbrook, Texas 78612
1-817-249-5702

Regents Publishing Company, Inc.
Two Park Avenue
New York, New York 10016
1-800-822-8202

Charles Nipp
3238 Highbrook Drive
Dallas, Texas 75234
1-214-241-6519

Revrac Publications, Inc.
207 West 116th Street
Kansas City, Missouri 64114

Riverside Publishing Company
8420 Bryn Mawr Avenue
  icago, Illinois
   0-323-9540

Southwestern Regional Office
8301 Amabassador Row
Dallas, Texas 75247
1-800-442-8855 or 1-214-637-0148

Scott, Foresman and Company
Lifelong Learning Division
1900 East Lake Avenue
Glenview, Illinois 60025
1-800-323-5482

Floyd E. Irving
Sales Representative
2208 Glen Forest Lane
Plano, Texas 75023
1-214-985-0025

Slosson Educational Publications, Inc.
P. O. Box 280
East Aurora, New York 14052

SRA
(Science Research Associates, Inc.)
155 N. Wacker Drive
Chicago, Illinois   60606
1-800-621-0476

      Claude Hall
      Rt. 2, Box A-438
      Pottsboro, Texas   76706
      1-214-558-2305 (Business)
      1-214-786-2803 (Home)

      Jerald A. Morton
      8008 Fruit Street, N. E.
      Albuquerque, New Mexico   87108
      1-505-265-6586

      W B. Smith
      7614 Braesview
      Houston, Texas   77071
      1-713-777-5679

      Carroll Strange
      23003 Rosehollow Trail
      Tomball, Texas   77375
      1-713-351-8451

Steck-Vaughn Company
P. O. Box 2028
Austin, Texas   78768
1-800-252-9317

      Bobbi Barnes
      Sales Representative
      2013 Fry Road, Apc. #1806
      Katy, Texas   77449
      1-713-579-0449

TEAMS
Texas Education Agency
William B. Travis Building
1701 No. Congress Avenue
Austin, Texas   78701
1-512-463-9536

Texas A & I University
Graham, C. Ray and Mark Walsh:
<u>Adult Education ESL Teacher's Guide</u>
South Texas Adult Education Center,
Texas A & I University
Kingsville, Texas   78363

Trends/Austin Community College
P. O. Box 2285
Austin, Texas 78768
1-512-472-1387

ADDITIONAL RESOURCES

ERIC
Full Text Provided by ERIC

RESOURCES

The following publications are listed to provide the reader with additional information in the areas mentioned:

Berk, Ronald A., ed., <u>A Guide to Criterion-Referenced Test Construction</u>. Baltimore: The Johns Hopkins University Press, 1984.

> Designing criterion-referenced tests
> Writing test items
> Analyzing test results

Bloom, Benjamin S., J. Thomas Hastings, and George F. Madaus, <u>Handbook on Formative and Summative Evaluation of Student Learning</u>. New York: McGraw-Hill Book Company, 1971.

> Cognitive and Affective Taxonomy
> Testing for each level of both taxonomies
> Designing specification tables
> Defining instructional objectives
> Placement and diagnosis

Carlson, Sybil B., <u>Creative Classroom Testing</u>. Princeton: Educational Testing Service, 1985.

> Sample items of several different types

Carmines, Edward G. and Richard A. Zeller, <u>Reliability and Validity Assessment</u>. Beverly Hills: SAGE Publications, 1979.

> Reliability, validity

Collins, Harold W., John H. Johansen, and Jim Johnson, <u>Educational Measurement and Evaluation for the Classroom Teacher</u>. Dubuque, Iowa: William C. Brown Co., Inc., 1967.

> Item analysis for the classroom test

Educational Testing Service, <u>Multiple-Choice Questions: A Close Look.</u> Princeton: ETS, 1963.

> Samples of well written questions

Fingeret, Arlene, "Concepts of Student Success in Adult Basic Education." Paper presented to the Annual Meeting of the Commission on Adult Basic Education, 1986.

> Study focused on attitudes; social, emotional, psychological development

Gabbert, Larry C., <u>Basic Guidelines for Improving Classroom Tests.</u> Bensenville, Ill,: Scholastic Testing Service, Inc. 1977.

> Types of items for teacher-made tests

Gronlund, Norman E., <u>Constructing Achievement Tests</u>. Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1968.

> Constructing tests that measure specific learning outcomes at all levels of the Taxonomy

Gronlund, Norman E., <u>Measurement and Evaluation in Teaching,</u> 2nd ed. New York: The Macmillan Company, 1971.

> Defining objectives
> Designing specification tables
> Writing test items

Grotelueschen, Arden D., Dennis D. Gooler, and Alan B. Knox, <u>Evaluation in Adult Basic Education: How and Why.</u> Urbana, Ill.: University of Illinois, 1976.

> Variation of teaching contexts
> Attitudes, expectations, intentions

Guilford, J.P., <u>Fundamental Statistics in Psychology and Education</u>, 4th ed., New York: McGraw-Hill Book Company, 1965.

> Statistics for the classroom

Harris, David P., <u>Testing English as a Second Language.</u> New York: McGraw-Hill Book Company, 196⁻

> Testing oral and written language; vocabulary: auditory discrimination
> Constructing, administering, interpreting tests

145

Henerson, Marlene E., Lynn L. Morris, and Carol T. Fitz-Gibbon, How to Measure Attitudes. Beverly Hills: SAGE, 1978.

Alternative approaches for measuring attitudes
Developing attitude measures - questionnaires, rating scales, interviews, reports, observations, sociometric instruments

Hively, Wells, ed., Domain-Referenced Testing. Englewood Cliffs, New Jersey: Educational Technology Publications, 1974.

Specifying domains beyond objectives
Tracking growth

Knox, Alan B. and Associates, Developing, Administering, and Evaluating Adult Education. Washington: Jossey-Bass Publishers, 1980.

Interest inventory
Assessment of social needs

Kryspin, William J. and John Feldhusen, Developing Classroom Tests: A Guide for Writing and Evaluating Test Items. Minneapolis: Burgess Publishing Co., 1974.

Part I: Purposes and plans for tests
Part II: Developing test items

Lauffer, Armand, Assessment Tools. Beverly Hills: SAGE Publications, 1982.

Task analysis
Techniques (force field analysis, nominal group technique, gaming, Delphi)

Lindwall, C. Mauritz and Anthony J. Nitko, Measuring Pupil Achievement and Aptitude, 2nd ed., New York: Harcourt Brace Jovanovich Inc., 1975.

Teacher-made tests

Lyman, Howard B., Test Scores and What They Mean. Englewood Cliffs, N.J.: Prentice-Hall, Inc. 1963.

Statistics
Reliability, validity
Interpretation of scores

Mager, Robert F., <u>Developing Attitude Toward Learning</u>. Palo Alto: Fearon Publishers, 1968.

    Identifying behaviors that indicate attitudes

Mager, Robert F., <u>Measuring Instructional Intent</u>. Belmont, California: Pitman Learning, Inc., 1973.

    Matching test items to objectives
    Sample items; exercises

Mager, Robert F., <u>Preparing Instructional Objectives.</u> Palo Alto: Fearon Publishers, 1962.

    Writing objectives
    Specifying behavior and the criterion

Manuel, Herschel T., <u>Elementary Statistics for Teachers.</u> New York: American Book Company, 1962.

    Easy to understand statistics

Mehrens, William and Irvin J. Lehmann, <u>Measurement and Evaluation in Education and Psychology</u>, 2nd ed. New York: Holt, Rinehart and Winston, 1975.

    Teacher-made tests

Miller, Harry G., Reed G. Williams, and Thomas M. Haladyna, <u>Beyond Facts, Objective Ways to Measure Thinking.</u> Englewood Cliffs, New Jersey: Educational Technology Publications, 1978.

    Teacher-made tests at all cognitive levels

Morris, Lynn L. and Carol T. Fitz-Gibbon, <u>How to Measure Achievement</u>. Beverly Hills: SAGE, 1978.

    Constructing achievement tests
    Using test results

Nafziger, Dean H., R. Brent Thompson, Michael D. Hiscox, and Thomas R. Owen, Tests of Functional Adult Literacy; an Evaluation of Currently Available Instruments. Portland, Ore.: Northwest Regional Educational Laboratory, 1976.

   Problems in defining and measuring functional literacy
   Lists of tests with evaluations (See Appendix of this
      handbook)

Nelson, Clarence, Measurement and Evaluation in the Classroom. London: The Macmillan Co., 1970.

   Teacher-made tests

Popham, W. James, ed. Evaluation in Education. Berkeley: McCutchan Publishing Corp., 1974.

   Criterion-referenced testing

Popham, W. James, Criterion-Referenced Measi rement. Englewood Cliffs, New Jersey: Prentice-Hall, 1978.

   Resource on criterion-referenced tests

Rossman, Mark, Elizabeth Fisk, and Janet Roehl, Teaching and Learning Basic Skills, A Guide for Adult Basic Education and Developmental Educational Programs, New York: Columbia University Teachers College, 1984.

   Self-concept
   Asking/answering questions
   Creative testing

Siegel, Ernest and Rita Siegel, Creating Instructional Sequences. San Rafael, California: Academic Therapy Publications, 1977.

   Behavioral objectives and assessment

Smith, Fred M. and Sam Adams, Educational Measurement for the Classroom Teacher, 2nd ed., New York: Harper and Row, 1972.

   Formulating objectives for teacher-made tests

Thorndike, Robert L., ed. _Educational Measurement_, 2nd ed.,
Washington, D.C.: American Council on Education, 1971.

    Defining and assessing educational objectives
    Writing test items
    Reliability, validity

Tuckman, Bruce W., _Evaluating Instructional Programs_, 2nd ed.
Boston: Allyn and Bacon, Inc., 1985.

    Assessing teaching style, student attitudes
    Evaluating the quality of criterion-referenced tests

Walberg Herbert J., _Evaluating Educational Performance_. Berkeley:
McCutchan Publishing Corp., 1974.

    Instructional materials

Wood, Dorothy A., _Test Construction_. Columbus, Ohio: Char`es E.
Merrill Books, Inc., 1961.

    Writing items
    Reliability, validity

Included in this appendix are additional tests available for use in adult education programs which are listed in the following sources:

ERIC (Educational Resources Information Center)

Nafziger, Dean H., R. Brent Thompson, Michael D. Hiscox, and Thomas R. Owen, <u>Tests of Functional Adult Literacy: An Evaluation of Currently Available Instruments,</u> Portland, Ore.: Northwest Regional Educational Laboratory, 1976

Texas Education Agency, Annotations of Selected Informal Assessment Instruments, January 1980

Appendix

Additional Resources

Adult Basic Reading Inventory

Publisher.	Scholastic Testing Service 480 Meyer Bensenville, Illinois 60106
Description:	This test has five parts. Part I tests the student's ability to associate a word with a picture. Part II tests the student's sound and letter discrimination. Part III tests the student's ability to associate synonyms (or related words) as he or she <u>reads</u> the words. Part IV is similar to Part III, except that the student <u>hears</u> the words read orally. Part V requires the student to read paragraphs and answer comprehension questions.
Availability of Alternate Forms	There are no alternate forms available.
Administration Time	The test can be administered in one session; Parts I and II each require five minutes. Parts III and IV each require ten minutes. Part V requires 15 minutes.
Administration Procedures:	The test is group administered. In Part I, the examiner reads instructions and examinees underline words associated with pictures. In Part II, the examiner reads words to the examinees who in turn underline words beginning with the same sound as the word read by the examiner. In Part III, the examiner reads instructions and examinees underline the word in a list which has about the same meaning as a word written to the side. In Part IV, the examinee performs the same task; however, the words are read orally by the examiner. In Part V, the examiner reads the instructions and examinees read paragraphs and choose the correct answer to comprehension questions.
Materials Used:	Examiner. Manual of directions Examinee. Test booklet, line marker, two colored pencils, eraser
Scoring Procedures	Scoring is objective and simple. The examiner simply compares the student's answers in the test booklet to a scoring key. For each part the number of correct answers is indicated. Each raw score is then converted to a percentage score according to instructions provided in the manual.
Interpretation Procedures.	The manual indicates and defines how to assess an examinee's reading ability by approximate grade levels or in terms of functional or absolute illiteracy. It also offers some general suggestions on assessing areas of weakness and aspects of remediation.

Adult Performance Level Functional Literacy Test (APL)

Publisher	Dr. Norvell Northcutt Division of Extension 103 Extension Building University of Texas at Austin Austin, Texas 78712

Description
The APL is a test of functional literacy for adults. There are 42 items, many of which involve more than one question. The items test an examinee's knowledge of consumer economics, law and health, ability to perform real-life tasks, and reading and writing ability.

Availability of
Alternate Forms.
There are no alternate forms available.

Administration
Time.
The test takes approximately 60 minutes to administer.

Administration
Procedures
The test is individually administered in an interview format. The examiner reads the questions aloud while the examinee follows along in the accompanying booklet. The examinee then responds, either by reading orally or calling out the correct answer from several choices. The examiner records the answer given and goes on. If the examinee is asked to do a task requiring writing (filling out a check, addressing a letter), the examiner gives the examinee the questionnaire on which to write his response. Thus, all answers are recorded on the questionnaire.

Materials Used
Examiner Questionnaire, pencil
Examinee. Booklet, pencil, eraser

Scoring
Procedures
The test is scored in two ways. Multiple choice items are scored by comparing the examinee's answer to the correct answer indicated on the questionnaire. Questions in which the examinee engages in a written task are scored according to a system of rules given in the handbook, indicating which answers are acceptable and which are not.

Interpretation
Procedures
For purposes of initial analysis, scores are grouped into quartiles according to the number of points achieved on the test. They are interpreted primarily, however, according to three APL levels   APL 1 (least competent), APL 2 (marginally competent) and APL 3 (most competent).

An Informal Reading Inventory for Use
by Teachers of Adult Basic Education

Publisher.	Office of Adult Basic Education State Department of Education Concord, New Hampshire 03301
Description	This test measures reading performance from Level 1 through Level 6. These levels correspond with the levels in graded readers. The inventory has four parts: Part I, Word Recognition (testing word attack skills and vocabulary level); Part II, Oral Reading and Comprehension questions; Part III, Listening Ability (present potential level) and Part IV, Visual and Auditory Perception and Discrimination (used for examinees who cannot function at the introductory level of Part I).
Availability of Alternate Forms	There are no alternate forms available.
Administration Time.	The time required for the test is not specifically indicated, though administration probably requires from 20 to 30 minutes, depending on how soon a student reaches the level of frustration.
Administration Procedures	The test is individually administered. In Part I, the examiner exposes words for one second for the examinee's flash recognition. If the examinee misses the word, he or she is allowed to analyze it. In Part II, the examinee reads paragraphs orally and answers comprehension questions. In Part III, the examiner reads paragraphs orally to the examinee who in turn responds to comprehension questions. Part IV is administered to examinees who cannot function at the introductory level of word recognition. The examinee names letters pointed out by the examiner, gives the sounds of blends and writes the initial, final or middle sounds of words read to him or her.
Materials Used	Examiner: Informal Reading Inventory Booklet, pencil, two 3x5 cards Examinee: Paper, pencil, eraser
Scoring Procedures	The scoring of this test is objective, but fairly complicated. The examiner must record each error the student makes, using a system of notations. The number of words correctly recognized in Part I is totaled. In Part II, the examiner computes the number of reading errors and percentage of comprehension questions answered correctly. In Part III, the examiner computes the number of comprehension questions answered correctly. In Part IV, the examiner records the examinee's oral errors to letter recognition and blending tasks and hand-scores the written responses to the auditory discrimination tasks.
Interpretation Procedures:	Based on the scores the examiner computes the examinee's independent level, instructional level and frustration level. These levels correspond closely with comparable levels in a graded reader.

153

Developer	Los Angeles Unified School District
Publisher.	CTB/McGraw-Hill Del Monte Research Park Monterey, California 93940
Purpose.	Measures students' ability to handle computational problems encountered in school, home and community situations. Provides basic information needed for a diagnostic-prescriptive assessment and instructional program
Level	Junior High students, may be used in remedial programs for Ser or High and Adult students
Format	Test book, examiner's manual, class summary sheet, and test reviewer's guide. ASC is divided in two sections for administration in two 50-minute periods with 36 items in each section.
Scoring	Criterion-referenced or may be used to determine competencies which should have been mastered by the end of ninth grade. Hand or machine scored. Scoring service provides a Performance Analysis Report, Frequency Distribution by school and district, List of Students Passing ASC and Those Not Passing. School systems set passing scores. A copy of District Options for Establishing Competency Standards is available.
Prescription.	Instructional materials for teaching the application of basic computational skills in life-role situations are being developed and will be published in Spring 1980 by EDL/McGraw-Hill.

Basic Occupational Literacy Test (BOLT), Fundamental Level

Publisher.	U. S. Department of Labor 14th Street and Constitution Avenue, N. W. Washington, D. C. 20210
Description	The test is designed to measure the basic reading and arithmetic skills of educationally disadvantaged adults. There are four subtests, reading vocabulary, reading comprehension, arithmetic computation and arithmetic reasoning. Each test is available at four difficulty levels.
Availability of Alternate Forms	Three alternate forms are available for the first three levels. The advanced level offers two forms for each subtest.
Administration Time:	Fifteen minutes is required for each subtest.
Administration Procedures.	Before administering the subtests, each examinee is given the Wide Range Scale (included with the test) to determine the appropriate level of BOLT to administer. Directions are given orally to individuals or small groups. Each examinee records his or her answers on an answer sheet by marking the appropriate circle.
Materials Used:	Examiner Manual, scoring key, stopwatch, test record cards Examinee. Test booklet, answer sheet, pencil, paper clips, scratch paper
Scoring Procedures	Scoring can be done either by hand or by machine. Hand-scoring is done by placing a stencil over the answer sheet and counting the number of visible marks. The total number of correct responses can then be converted to a standard score or General Evaluational Development (GED) level using conversion tables contained in the User's Manual.
Interpretation Procedures	Once scores are converted to GED levels they can be compared to the GED levels for occupations listed in the Dictionary of Occupational Titles. One must be familiar with GED scores as well as standard scores in order to interpret scores for the BOLT.

Basic Reading S___ Mastery Test

Publisher	Services for Educational Evaluation, Inc. P. O. Box 2u1 Bloomington, Indiana 47401
Description	This test is an objective measure of comprehension in functional reading. The test consists of four scored subscales Following Directions, Locating References, Gaining Information and Understanding Forms. There is also a nonscored subscale designed to indicate the examinee's attitudes and habits in reading for personal development. Three levels of the test are available Level A for 12 year olds, Level B for 15 ear olds and Level C for 18 year olds. Level C is used for adults.
Availability of Alternate Forms	There are no alternate forms available.
Administration Time	Two 50-minute administrations are required for the test. All students are to be given time to finish the test.
Administration Procedures	The test is group administered. The examiner provides testing materials and reads instructions to the students. The examinee reads passages or forms and answers comprehension questions on an answer sheet.
Materials Used	Examiner Examiner's manual, test booklet Examinee Test booklet, pencil, eraser, answer sheet
Scoring Procedures	The answer sheets are computer-scored and the results returned on a printout sheet.
Interpretation Procedures	Eighty percent correct or better is considered mastery on this test.

Cyzyk Pre-Reading Inventory

Publisher
Janet L. Cyzyk (Author)
Adult Reading Specialist
Baltimore County Board of Education
6901 N. Charles Street
Towson, Maryland 21204

Description:
The inventory consists of various activities designed to
help a teacher recognize deficiencies within discriminatory
and perceptual skills in the visual, auditory and perceptual
motor areas that must be dealt with before an adult nonreader
can begin learning to read.

Availability of
Alternate Forms.
There are no alternate forms available.

Administration
Time.
There are nine separate short sections to the test.
Examinees may be given any number in a single session.
The tests are untimed, no estimate is given of the testing
time required.

Administration
Procedures
The inventory may be individually or group administered.
Each examinee receives a test booklet in which to underline
the correct answers. Instructions are given orally by the
examiner. Examinees do some of the activities independently
and in the remaining activities respond to lists of words
read by the examiner.

Materials Used.
Examiner. Test directions
Examinee. Test booklet, pencil

Scoring
Procedures
The test is hand-scored by the examiner who determines
the adequacy of each response. In its present form it serves
only to provide diagnostic information to the teacher who
seeks, through personal evaluation of test results, to
identify students' deficiencies.

Interpretation
Procedures
The test activities measure examinee abilities in motor
skills, reading functional words, perception of letter forms,
order and sequence of letters and digits, handwriting speed,
auditory discrimination, word perception and word
discrimination. Poor examinee performance on any of
the sections suggests that the teacher should conduct
additional testing on an individual basis.

Harris Graded Word List and
the Informal Textbook Test

Publisher.	Adult Continuing Education Resource Center Montclair State College Upper Montclair, New Jersey 07043
Description	These two tests are used together. The Harris Graded Word List consists of seven lists of words representative of varying reading levels. The Informal Textbook Test, given to applicants who score above grade level 2.0, involves a series of seven passages (at reading levels 2-8), each followed by a list of comprehension questions.
Availability of Alternate Forms	There are no alternate forms available.
Administration Time:	The Harris Graded Word List requires only one minute for each examinee. The administration time for the Informal Textbook Test (group administered) is not known.
Administration Procedures	The Harris test is individually administered. The examiner has the examinee read each list of words, noting mentally the level at which three or four errors are made. This level is later entered on the registration form. Examinees who score above 2.0 reading level take the group administered Informal Textbook Test. The examinee reads seven passages and answers the comprehension questions in the booklet.
Materials Used	Examiner Harris Graded Word List, pencil Examinee. Informal Textbook Test booklet, pencil, eraser
Scoring Procedures	Harris Graded Word List The examiner mentally notes at which level the examinee makes three or four errors in reading words. Informal Textbook Test The examiner compares the examinee's responses with pre-established correct responses.
Interpretation Procedures.	Harris Graded Word List If the examinee does not read above 2.0 reading level, he is classified as a beginning reader. Informal Textbook Test. The examinee's instructional level is determined by noting at which reading level he scores 2-3 (out of a possible 4). Any score below 2 indicates he should be in a beginning group.

Publisher	The Reading Education Center Boise State University Boise, Idaho 83720	Materials Used.	Examiner. Pencil, teacher's copy of Student Word List and Student Stories, recapitulation sheet, manual of directions
Description	The inventory is designed to provide a reading teacher with a student's estimated independent reading level,		Examinee Student's copy of Word List and stories

Publisher

The Reading Education Center
Boise State University
Boise, Idaho 83720

Description

The inventory is designed to provide a reading teacher with a student's estimated independent reading level, estimated instructional level, estimated frustra on level, estimated l.....g level, specific word recognition deficiencies and specific comprehension deficiencies. The test is applicable specifically to penal adult populations, and particularly to those persons who have difficulty learning to read.

Availability of Alternate Forms.

Alternate forms A and B are available. Each is divided into two major sections. Word Lists and Stories The two forms are bound in one booklet to facilitate repeated administration.

Administration Time.

The word lists require approximately ten minutes. Each of the eight stories (corresponding to grade levels in difficulty) takes five to ten minutes to read aloud. The estimated time for administration of comprehension tests following each story is five minutes per story. All of the stories need not be administered at one sitting.

Administration Procedures

The test is individually administered by a reading teacher. The examinee reads words selected from each of the stories aloud while the examiner codes errors on a copy of the word lists, beginning with the first grade level story. The examinee continues pronouncing words until three words within one list have been missed. For the oral stories, the examinee reads each story aloud while the examiner codes errors. The coding procedures suggested are somewhat complex and not standardized. After the examinee has finished the oral reading, the examiner asks comprehension questions on each of the stories, recording correct and incorrect responses.

Materials Used.

Examiner. Pencil, teacher's copy of Student Word List and Student Stories, recapitulation sheet, manual of directions

Examinee Student's copy of Word List and stories

Scoring Procedures.

Scoring consists of a complex and highly detailed system of coding to note student errors in oral reading. Scoring of comprehension questions is done, using a guide for acceptable answers. Percentage scores are used to determine achievement level (roughly corresponding to grade levels 1-8) on the word list portion of the test. On the oral reading portion of the test, word recognition and comprehension errors are recorded following each story. The examiner then transfers the errors in each story (grade level) into the terms "independent," "instructional," "frustration" and "listening," to indicate the examinee's ability in each category in correspondence to a grade level. All scores are recorded on the Recapitulation Sheet, which provides an estimated picture of the examinee's composite reading ability.

Interpretation Procedures.

Information recorded on the Recapitulation Sheet is intended to establish the examinee's estimated independent, instructional, frustration and listening levels in a manner roughly corresponding to grade levels. It also shows specific strengths and weaknesses in word recognition and comprehension as well as in pronunciation. The interpretation procedures are subjective, with judgments and estimates left to the examiner's discretion.

Individual Reading Placement Inventory

Publisher.	Follett Publishing Company 1010 West Washington Boulevard Chicago, Illinois 60607
Description.	This test is divided into five parts. Part I, Word Recognition and Analysis, tests a student's knowledge of sight words and ability to decode words he or she cannot immediately recognize. Part II, Oral Paragraph Reading, tests the student's oral reading skills and comprehension. Part III, Present Language Potential, tests the student's comprehension of paragraphs read by the examiner. Part IV tests the student's auditory discrimination. Part V, which is not scored, tests the student's ability to name letters of the alphabet and their sounds. This test is used only if the student scores 1.0 on Part I.
Availability of Alternate Forms	Alternate forms A and B are available.
Administration Time:	The test has four parts, each of which requires approximately ten to 20 minutes, depending on how many items a student is able to complete before reaching the level of frustration.
Administration Procedures·	The test is individually administered. In Part I, the examiner asks the examinee to read words aloud, either by recognition or word analysis. In Part II, the examinee reads paragraphs orally and answers comprehension questions. In Part III, the examinee listens to paragraphs read orally by the examiner and answers comprehension questions. In Part IV, the examiner reads lists of words orally and the examinee identifies the word in each list that begins or ends differently or has a different vowel sound in the middle. In Part V (used only if examinee scores 1.0 on Part I), the examiner points to letters of the alphabet and the examinee names each letter and gives one sound of the letter.
Materials Used	Examiner. Student's Test and Scoring Manual, pencil, word recognition wheels, paragraphs on cards Examinee. No equipment needed
Scoring Procedures	The examiner records the student's errors on each part of the test using an objective, but (for Parts I and II) quite complicated system of notations. The errors are then totaled.
Interpretation Procedures.	On the basis of the number of items missed per level, the student's independent level, instructional level and frustration level are computed. Each level of the test is apparently comparable to a grade level. The Student's Test and Scoring Manual also has places for the examiner to indicate a student's specific reading problems--word analysis, recitation, rate difficulties, etc.

-139-

Initial Testing Locator Tests

Publisher

Adult Continuing Education Resource Center
Montclair State College
Upper Montclair, New Jersey 07043

Description.

The reading test includes three passages of varying difficulty, each followed by comprehension questions. It is a preliminary screening test, designed to help the instructor tentatively assign students to different instructional levels or classes within General Educational Development (GED) programs. This test is given in conjunction with the Slosson Oral Reading Test.

Availability of Alternate Forms.

There are no alternate forms available.

Administration Time:

Although the time required for the test varies according to an examinee's performance, it would probably require less than 20 minutes.

Administration Procedures:

The test is individually administered. The examiner asks the examinee to read Passage A orally and answer the comprehension questions orally. If the student is unable to do this, the test ends. If able to do it easily, he or she is given Passage B and asked to read and answer questions in the booklet without help. If able to do this, he or she is given Passage C and asked to read it and respond to questions. After reaching his or her highest level--B or C--the student is given the CTB/McGraw-Hill Test of Adult Basic Education (TABE), levels M or D for further diagnostic testing.

Materials Used

Examiner. Test booklet, pencil
Examinee: Test booklet, pencil, eraser

Scoring Procedures

The examiner compares the examinee's answers with pre established correct answers.

Interpretation Procedures

An examinee who cannot read Passage A is probably a low level ABE student. If able to read Passage A and Passage B but not Passage C, he or she is probably higher level ABE or Pre-GED. If the student can also read Passage C, he or she is at least low level GED. In all but the first situation, use the TABE level M or D for further diagnostic testing.

Peabody Individual Achievement Test (PIAT)
c1970

Authors.	Lloyd M. Dunn and Frederick C. Markwardt, Jr.
Publisher	American Guidance Service, Inc. Publishers' Building Circle Pines, Minnesota 55014
Purpose	PIAT is a wide-range screening test intended to survey educational attainment in basic skills and knowledge in five areas: mathematics, reading recognition, reading comprehension, spelling, and general information. Items are sequenced in order of difficulty
Level	Ages Kindergarten - Adult
Format.	Two easel kits, Volumes I and II, contain the test plates. The Individual Record Booklet includes a profile sheet A training tape provides a pronunciation guide for the Reading Recognition and Spelling subtests. A manual is provided.
Scoring	Five subtest scores and a total score are obtained. Grade and age equivalents, percentile ranks, and standard scores can be derived.
Prescription	-
Special Features	Responses are given orally or by pointing, thus the spelling test is a recognition test. Demonstration and training exercises provided for each subtest aids in understanding for the very young and immature subjects.

Reading Evaluation--Adult Diagnosis (READ)

Publisher:	Follett Publishing Company 1010 West Washington Boulevard Chicago, Illinois 60607 or Literacy Volunteers of America, Inc. 222 West Onondaga Street Syracuse, New York 13203
Description:	The test has three parts. Part I, Word Recognition, tests the student's knowledge of sight words. Part II, Word Analysis, tests the student's decoding skills. Part III, Reading Inventory, tests the student's oral reading and comprehension.
Availability of Alternate Forms.	Alternate forms 1 and 2 are under one cover for the Reading Inventory (Part III).
Administration Time:	The three parts of the test do not need to be administered at the same time. Administration times for Parts I and II are estimated at five and ten minutes respectively; estimated administration time for completion of all levels (B-J) of Part III is half an hour.
Administration Procedures:	The test is individually administered. In Parts I and II, the examinee reads words and sounds aloud while the examiner records errors for each list. In Part III, the examinee reads stories and answers questions aloud while the examiner records errors for each story.
Materials Used	Examiner. Testing/record booklet, pencil Examinee: Reading lists and passages from test booklet
Scoring Procedures	Scoring is accomplished through an objective and fairly simple process of recording student scores for each of the test's three parts on a summary sheet. Correct scores are converted to percentages for Part I (Word Recognition). In Part II, specific diagnostic information is recorded on a variety of reading subskills, such as knowledge of alphabet and letter sounds. The difficulty of reading and listening comprehension selections in Part II corresponds roughly to grade levels, and passing any selection depends upon not exceeding a specified error count. The total passing score is converted to equivalent grade level. The test is intended for administration on a pre-post basis.
Interpretation Procedures	The test summary sheet provides a detailed reading profile for use in planning a specific instructional program for the examinee. The test booklet also provides suggestions for analyzing and using the test scores for individualized prescriptive programs.

Reading/Everyday Activities in Life (R/EAL)

Publisher	CAL Press, Inc. 76 Madison Avenue New York, New York 10016
Description	The test is an objective assessment of functional literacy presented in nine selected categories of common printed materials encountered in daily living. English and Spanish versions are available.
Availability of Alternate Forms	There are no alternate forms available.
Administration Time.	The test requires approximately 20-30 minutes, an examinee works at his or her own pace.
Administration Procedures:	The test may be individually or group administered. The examiner provides testing materials, i.e., test answer booklet and cassette tape recorder with R/EAL cassette. The examinee listens to taped questions which correspond to material in the test booklet and records answers in the test booklet.
Materials Used.	Examiner. Examiner's manual Examinee: Test booklet, cassette recorder with R/EAL cassette tape, pencil, eraser
Scoring Procedures.	Scoring is done by hand, referring to pre-established correct responses. Raw scores are totaled for the nine categories and the total raw score is then converted to percentage of items passed.
Interpretation Procedures.	Criterion-referenced-- Test items are directly related to sets of objectives associated with each of the nine reading activities. Functional literacy is defined as passing 80 percent or more of the test items (or achieving a raw score of 28). Interpretation of individual Subtes's--Following a review of the examinee's performance on individual subtests, the interpreter can recommend prescriptive programs to meet areas of need indicated through detailed task analyses outlined for each subtest.

Wisconsin Test   Adult Basic Education (WITABE)

Publisher: Rural Family Development Program
                                  University Extension
                                  University of Wisconsin
                                  Madison, Wisconsin 53706

Description.   This test was especially designed to monitor the basic
                                  skills achievement of persons enrolled in the Wisconsin
                                  Rural Family Development Program. The test appears
                                  appropriate for general use with adults who read below
                                  high school level.

Availability of   There are no alternate forms available.
Alternate Forms

Administration   The test is generally untimed, however, the maximum
Time   administration time for the two reading sections combined
                                  should be less than one hour.

Administration   The testing conditions are very flexible. The examinee
Procedures   works at his or her own pace, the examiner's only
                                  responsibility is to ensure that the written instructions
                                  are understood. The test may be administered individually
                                  or to groups. The WITABE consists of verbal and coping
                                  skills sections, both of which might loosely be considered
                                  "reading" tests. The skills required to complete the
                                  coping skills subtest include using a road map, ordering
                                  by mail, filling out a tax return, using a phone book and
                                  a variety of comparable tasks. A numerical subtest is
                                  also part of the WITABE. Any of the sections may be given
                                  separately.

Materials Used   Examiner   Test booklet
                                  Examinee   Test booklet, pencils, eraser

Scoring   Scoring is done by hand; responses are compared with pre-
Procedures.   established correct answers. A few questions in the coping
                                  skills subtest have more than one point scoring but
                                  assignment of points is still objective and relatively simple.
                                  The raw score obtained is not converted.

Interpretation   The WITABE was developed to measure differences between
Procedures.   treatment groups and control groups in the Wisconsin
                                  program. Raw scores were adequate for this purpose and
                                  thus no score interpretation process exists. Test scores
                                  cannot at this time be converted into grade equivalents,
                                  percentiles or other norm comparisons, nor is any
                                  criterion-referenced diagnostic information av

Woodcock-Johnson Psycho-Educational Battery
c1973

Authors: Richard W. Woodcock and Mary Bonner Johnson

Publisher   Teaching Resources Coiporation
                        50 Pond Park Road
                        Hingham, Massachusetts 02043

Purpose.   Provides a comprehensive overview of learning aptitude,
                        scholastic achievement, cognitive ability, and interest
                        level from which to proceed with specific diagnostic
                        procedures and instructional planning. The Battery of
                        27 tests is divided into three major parts   (I) Tests
                        of Cognitive Ability which include tests of perceptual
                        skills, memory, symbolic and verbal reasoning, and
                        learning aptitude tests of reading, math, written language
                        and knowledge. (II) Tests of Achievement include subtests
                        in reading (3), mathematics (2), written language (2),
                        and academic knowledge (3), (III) Tests of Interest Level
                        include mathematics, reading, written language, social
                        activities, and physical activities.

Level.   Preschool-Adult

Format.   Book 1 (Contains Part I), Response Booklets (25), cassette,
                        Book 2 (Contains Part II and III), and Response Booklets
                        (25).

Scoring   Norms are based on ages 3.0 to 80+ years. A full descrip-
                        tion of the norming sample is provided in the Technical
                        Manual   A Test Analysis and Report Service is available
                        which computes and lists all scores called for in the Sum-
                        mary of Scores sections of the two Response Booklets,
                        descriptive summary is also provided.

Prescription.   -

Special Features   A special cluster of two tests (#6 and #8) provides a
                        brief scale of cognitive ability. This requires about
                        15 minutes to administer and score.

Measures for Research and Evaluation in the English Language Arts

Fagan, William T   And Others

ERIC Clearinghouse on Reading and Communication Skills. Urbana, Ill , National Council of Teachers of English. Urbana. Ill

Mar 1975

241p

Sponsoring Agency   National Inst   of Education   (OHEW). Washington, O C

Contract No. NEC-0-72-463G

Available from   National Council of Teachers of English. 1111 Kenyon Road. Urbana. Illinois 61801 (Stock No 15343. $5 95 nonmember, $5 50 member)

EDRS Price - MF01/PC10 Plus Postage

Language ENGLISH

Document Type BOOK (010)

Journal Announcement RIEMA(75

In the fall of 1972 the Research Foundation of the National Council o   Teachers of English decided to fund the Research Instruments Project (TRIP). a project designed to collect and evaluate measurement instruments in reading language development, teacher competency. standa d English as a second language o- dialect. literature. writing, listening and miscellaneous language skills In addition to being suitable for assessing a component of the field of English education. the tests selected had to be available on microfilm from University Microfilms or through the ERIC system. must not have been published or made commercially available, and had to have potential use for future research Information on each of the more than 100 instruments listed includes the suggested age range. a description of the instrument, validity. re ability. and normative data. ordering information. and a list o related documents and references (TO)

Descriptors Educational Research. English (Second Language) ; *English Education; Evaluation; Language Acquisition Language Arts. Language Research. Listening. Literary Criticism. *Measurement Instruments. Reading: Teaching Skills *Test Reviews. Tests Writing (Composi ion)

Identifiers *The Research Instruments Project. TRIP

ED223873   CE034435

Testing Instruments and Procedures for Adult English as a
Second Language Programs

Terdy, Dennis, And Others

Illinois Statewide English as a Second Language/Adult
Education Service Center, Arlington Heights

Feb 1982

57p. For related documents see CE 031 432 /34

Sponsoring Agency Illinois State Board of Education,
Springfield Adult and Continuing Education Section

EDRS Price - MF01/PC03 Plus Postage

Language. English

Document Type TEACHING GUIDE (052), BIBLIOGRAPHY (131)

Geographic Source U S , Illinois

Journal Announcement RIEMAY83

Target Audience Practitioners

Intended for adult education English-as-a-Second Language
(ESL) teachers and administrators, this guide provides
information for identifying appropriate testing instruments
and integrating them into an overall testing and assessment
program. Chapter 1 focuses on testing procedures and covers
organization of the testing program, test selection, locally
developed tests, initial placement (screening), achievement
testing, diagnostic testing, and considerations for a good
testing program Chapter 2 provides general characteristics
and recommendations for test use on the five types of tests
that were selected for inclusion in the annotated list of ESL
tests provided in chapter 3. Chapter 3 contains the
annotations of ESL tests that are new, currently used, or
recommended for use in an adult ESL program Tests are divided
into five categories ESL aural/oral tests, ESL reading and
literacy tests, ESL writing tests, ESL written grammar tests,
and ESL multipurpose tests For each test this information is
provided test name, description (purpose, content, procedure,
target level of student), administration (method, materials
needed, time, scoring) and sample questions (YLB)

Descriptors   •Adult Education, Adult Literacy, •Adult
Programs, •English (Second Language), Limited English Speaking
, Reading Te..s, Second Language Instruction, •Testing
Programs, Tests, •Test Selection, Verbal ests, Writing
Evaluation

168

ED227996   RC013954
  Tests of English as a Second Language 1940-1980
  Educational   Testing   Service,   Princeton,   N J   Test
Collection
  Mar 1982
  19p.; For related document, see ED 213 547.
  Available   from   Test   Collection   Educational   Testing
Service, Princeton NJ 08541 ($3 00)
  EDRS Price - MF01 Plus Postage PC Not Available from EDRS
  Language English
  Document Type NON-CLASSROOM MATERIAL (055)

  Geographic Source U S , New Jersey
  Journal Announcement RIEAUG83
  Target Audience Practitioners
  Arranged alphabetically by title, the bibliography lists 92
tests,   designed   for   use   with   students   ranging from
preschoolers to adults, that are measures of proficiency in
English as a second language Each citation provides title
author, copyright data age level suitability, publisher, and
a brief annotation describing the purpose of the test Dates
of tests range from 1940 to 1980, with the majority being
dated from 1970 to 1980 The bibliography includes tests to
measure   language dominance in Spanish and English, English
language   proficiency,   inventory   of   natural   language
bilingualism (oral and syntax), comprehension of English
language,   bilingualism   of   Chinese   students,   oral
communication, oral language development language usage in
the   home   Navajo-English   language   dominance,   oral
English-Spanish   proficiency,   oral   production and aural
comprehension of adults, and linguistic skills of bilingual
students The document also contains addresses of the 46
publishers of the cited tests (ERB)
  Descriptors Achievement Tests, Adult Education, *Aptitude
Tests, Bilingual Education Bilingualism, Diagnostic Tests,
Elementary Secondary Education *English (Second Language),
*Language Proficiency *Language Tests Preschool Education,
Screening   Tests,   Second Language Learning   Spanish
Standardized Tests

DIRECTORS' SURVEY RESULTS

APPENDIX

Directors for the various Adult Education Co-ops in the state were asked to respond to a questionnaire on testing. The results of their survey is as follows:

ASSESSMENT QUESTIONNAIRE FOR DIRECTORS

Considering the tests that are used in your co-op, how would you rate the following items on the scale? Pl⌐ se circle the appropriate number on the scale from 1 (Agree) to 5 (Disagree).

N=38	Agree	Unsure	Disagree
1. Testing takes away too much time from instruction.	11%	3%	86%
2. The tests we have are not directly relevant to the curriculum being used.	16%	11%	73%
3. Students are so anxious about being tested that testing during the 1st class period might scare them away.	45%	18%	37%
4. The tests now being used are adequate for individualized planning and instruction by teachers.	60%	16%	24%
5. There is a need for affective measures to document progress made in student self-esteem and positive attitudes.	65%	13%	22%
6. Only informal teacher assessments should be used in ESL classes rather than a formal language proficiency test.	38%	32%	30%
7. Standardized instructional criteria or essential elements should be established statewide			
for ESL	53%	13%	34%
for ABE (1-8)	54%	11%	35%
for GED (9-12)	51%	11%	38%