

DOCUMENT RESUME

ED 290 006

CE 049 349

AUTHOR Snow, Ellen; And Others
TITLE Assessment Models for Adult Education.
INSTITUTION Education Service Center Region 20, San Antonio, Tex.
SPONS AGENCY Texas Education Agency, Austin. Div. of Adult and Community Education Programs.
PUB DATE Jun 87
GRANT TEA-77320213
NOTE 17lp.
PUB TYPE Guides - Non-Classroom Use (055)

EDRS PRICE MF01/PC07 Plus Postage.
DESCRIPTORS Adult Basic Education; *Adult Education; Behavioral Objectives; Competency Based Education; *Educational Assessment; High School Equivalency Programs; Models; Postsecondary Education; *Student Evaluation; *Test Interpretation; Test Items; Test Selection; *Test Use

IDENTIFIERS Texas

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)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED290006

ASSESSMENT MODELS FOR ADULT EDUCATION

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

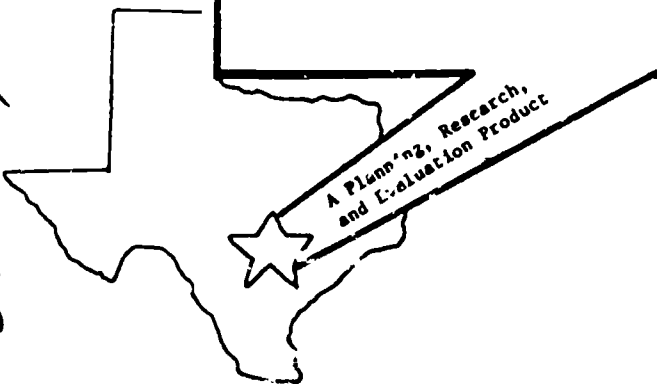
ELLEN SNOW, PH.D.

SYLVIA GONZALEZ GLASS

NANCY BENTLEY

JUNE 1987

649 640 349



A Planning, Research,
and Evaluation Product

Education Service Center
Region 20
1314 Hines Avenue
San Antonio, Texas 78208
(512) 271-7611

ASSESSMENT MODELS FOR ADULT EDUCATION

**Ellen Snow, Ph.D.
Sylvia Gonzalez Glass
Nancy Bentley**

**Planning, Research, and Evaluation
Education Service Center, Region 20**

**This handbook has been written pursuant to a grant (77320213/
July 1, 1986) from the Texas Education Agency, Division of Adult
and Community Education Programs, Austin, Texas 78701. The
opinions expressed herein do not necessarily reflect the positions
or policies of the Texas Education Agency and no official
endorsement by the Texas Education Agency should be inferred.**

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:

Advisory Committee Members

Herb Bellamy, Supervisor
Ken Carter, Supervisor
Rene Coronado, Supervisor
Silverio Cuellar, Director
Maggie Cunningham, Director
Patricia Eskaw, Teacher (GED)
Hannelore Hallinger, Teacher (ESL)
Jim Jones, Supervisor
Bea Shaver, Supervisor
Pat Wood, Teacher (All Levels)

Special thanks to Judy Spencer of the Planning, Research, and Evaluation staff for her assistance in editing.

TABLE OF CONTENTS

	<u>Page</u>
Preface	i
Table of Contents	ii
List of Figures and Tables	iii
Introduction	1
Developing Measurable Objectives	5
Developing Test Specifications and Items	19
Interpreting and Using Assessments	38
Adult Basic Education	65
English as a Second Language (ESL)	79
General Education Development (GED)	87
Competency Based High School (CBHS)	101
Other Education Settings	107
Recommendations	109
 Appendices	
Survey Instrument	113
List of Publishers	116
Additional Resources	122
Directors' Survey Results	149

LIST OF FIGURES AND TABLES

<u>Figure</u>		<u>Page</u>
1	Example of Proofreading Skills and Related Skills	17
2	Checklist for Evaluating Objectives	18
3	Specification Table for the Cognitive Domain (Matrix) ...	20
4	Completed Specification Table for the Cognitive Domain ..	21
5	Specification Table for the Affective Domain	29
6	Relationship of Various Scales to the Normal Curve	42
7	Individual Subtest Report	44
8	Individual Subtest and Objectives Performance Report	45
9	Class Summary Report	47
10	Individual Score Report	48
11	Class Summary Report	49
12	Individual Student Report (TEAMS)	51
13	Class Summary (TEAMS)	52
14	Self-Assessment Checklist	54

Tables

Summary of Tests Used ABE	75-77
Summary of Tests Used ESL	83-85
Summary of Tests Used GED	97-100
Summary of Tests Used CBHS	104-105

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

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.

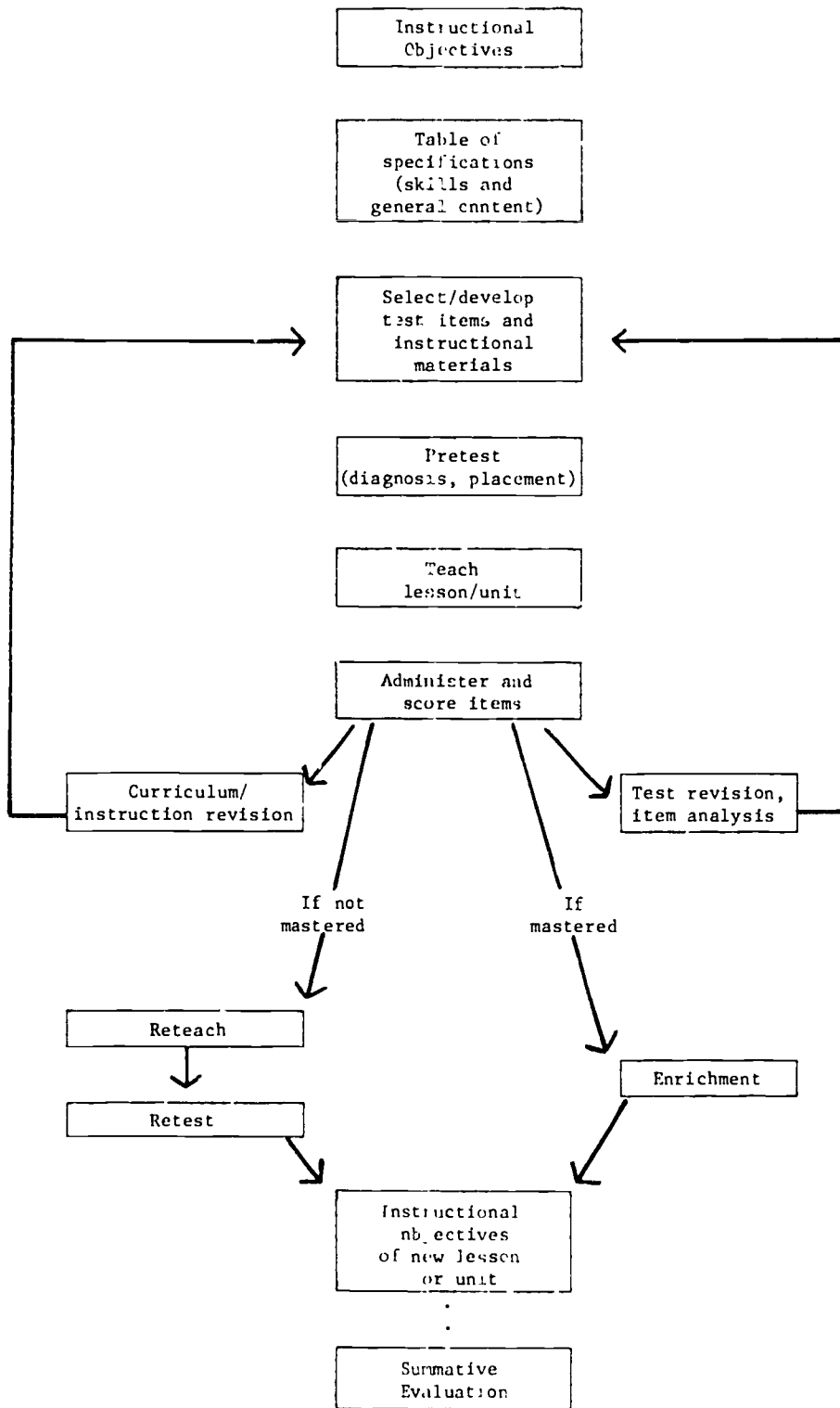
The term model as used in this handbook refers to a systematic approach to the assessment of adults in a learning environment to determine entry level, ongoing mastery, and achievement or change. A comprehensive assessment model is suggested (see graphic representation on next page).

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;

ASSESSMENT MODEL

TESTING AS A PART OF THE TEACHING/LEARNING PROCESS



- 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.

**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
behavioral objectives
performance objectives

learner based objectives
terminal 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.

3) 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

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 achievement 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 remembering 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, outlines, 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, gives examples, infers, paraphrases, predicts, rewrites, summarizes

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

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 education.

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

²Krathwohl, 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.

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.

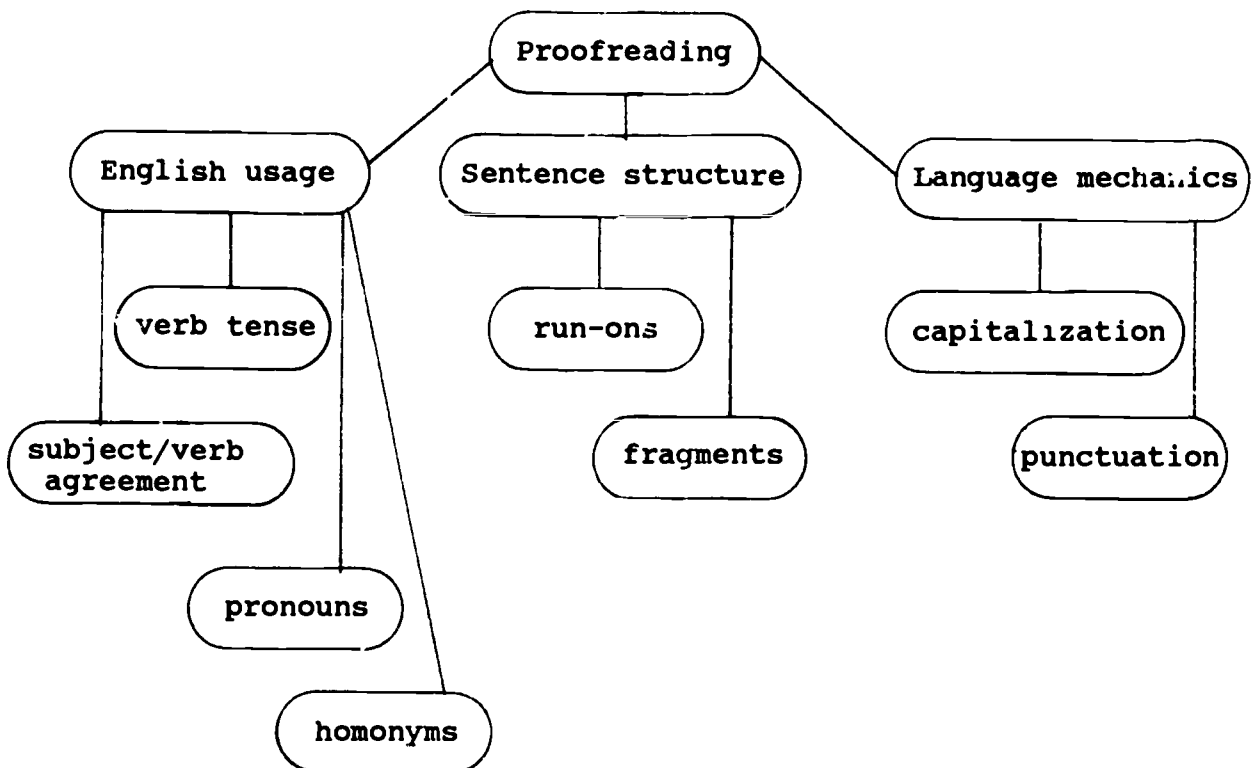
For example, if a teacher expects a student to "understand" fractions, he must identify specific behaviors that the student can demonstrate to prove that he "understands" fractions. The teacher might specify that the student will:

- 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

grouping similar topics together. The teacher can begin 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

**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?

**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						

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

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

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. Questions 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

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 correct 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,

"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 is not required. In such case, anonymity can be guaranteed of students 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.

Several types of instruments already reviewed are appropriate for affective assessments, particularly 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 differential, 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.

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 differential 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	-----	-----	-----	-----	-----

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.

<u>Score Groups</u>	<u>Frequency</u>
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
	<hr style="width: 10%; margin: auto;"/> 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 central 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.)

<u>Score Group</u>	<u>Frequency</u>	<u>Cum. Freq.</u>
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.

<u>Score Group</u>	<u>Frequency</u>	<u>Cum. Freq.</u>	<u>Percentile Rank</u>
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.

<u>Scores</u>		<u>Ranks</u>		<u>Difference</u>	<u>Squares</u>
<u>Test 1</u>	<u>Test 2</u>	<u>Test 1</u>	<u>Test 2</u>	<u>of ranks</u>	
		(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
					<u>12</u>

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

where

- R = Correlation coefficient
- $\sum (X-Y)^2$ = Sum of the Squares of Differences
- n = 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 column (X-Y). The (X-Y) column is squared and the sum of the squares is 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 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 Equivalent (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 is 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.

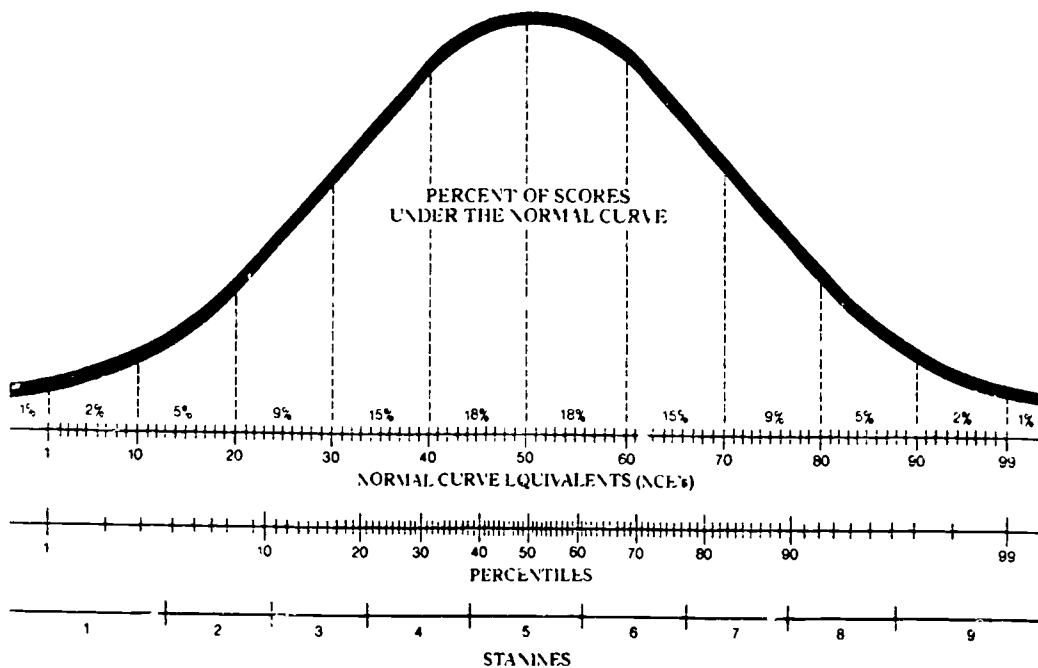
Norm-referenced scores, by definition, are distributed on a normal curve where the majority of scores are expected to occur at the middle of the curve (at and around the 50th percentile) while smaller numbers of cases appear at the higher and lower extremes. The normal curve approximates the frequency 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.

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

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.

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 SUBTEST	NUMBER CORRECT	SCALE SCORE	S E M	GRADE EQUIV	%ILE	PERCENTILE ABE	GROUP
Reading - M/5 - 03 Feb 86						Standard Error of Estimate	G E D Scores
Vocabulary	25	693	12	4 3	32		
Comprehension	30	713	6	5 5	24		
Total		706		4 9	29	Predicted	
Mathematics - M/5 - 03 Feb 86						G E D Score	
Computation	40	790	8	8 1	79		
Concepts/Apppl	25	679	13	3 8	21	Writing	30 5 3 7
Total		735		5 9	47	Math	45 3 7 45
Language M/5 - 03 Feb 86						Science	31 3 9 30
Mechanics	17	680	13	4 2	41	Lit/Arts	40 3 7 39
Expression	22	679	12	3 7	31	Soc Stud	40 3 8 38
Total		679		3 7	34		
Total Battery		706		5 0	34	Average	38 3 6 37 4
Spelling - M/5 - 03 Feb 86							
	17	696	12	4 7	22		

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.

Figure 8

Individual Subtest and Objectives Performance Report

TABS (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	NUMBER	SCALE	GRADE	PERCENTILE	GROUP					
SUBTEST	CORRECT	SCORE	S E M. EQUIV	%ILE	Juvenile Offenders					
Reading - E/S - 03 Feb 86										
Vocabulary	25	667	14	3.3	29	Standard Error of Estimate				
Comprehension	31	699	21	4.9	37	Scores				
Total		680		3.7	33	Predicted G E D Score				
Mathematics - E/S - 03 Feb 86										
Computation	40	727	16	4.9	43	\ \ \				
Concepts/Appl	25	509	17	2.4	17	Writing	25 5 3 24			
Total		668		3.3	24	Math	25 3 7 26			
Language - E/S - 03 Feb 86										
Mechanics	17	617	12	2.3	28	Science	22 3.9 22			
Expression	22	652	17	2.6	38	Lit/Arts	23 3 7 23			
Total		635		2.5	30	Soc Stud	21 3 8 20			
Total Battery		661		3.2	30	Average	22 3 6 23 0			
Spelling - E/S - 03 Feb 86										
	17	530	12	2.6	17					
OBJECTIVES PERFORMANCE										
OBJECTIVE	# CORR/ # POSS	MAST- ERY	OBJECTIVE	# CORR/ # POSS	MAST- ERY					
Reading Vocabulary										
Synonyms	7/10		Math Concepts & Applications							
Antonyms	5/5	+	Numeration	7/8	+					
Homonyms	6/6		Number Sentences	6/6	+					
Affixes	3/4		Number Theory	3/6						
Words in Context	4/5		Problem Solving	5/11						
Reading Comprehension										
Passage Details	11/13	+	Measurement	2/5						
Character Analysis	2/4		Geometry	2/4						
Central Thought	5/7		Language Mechanics							
Interpreting Events	8/11		Pronoun I, Noun, Adject	4/5	+					
Writing Techniques	5/5	+	Beginning Word, Title	5/6	+					
Math Computation										
Add Whole Numbers	8/8	+	Period, Quest, Exclam	3/6						
Add Decimals	3/4	+	Comma, Colon, Semi, Quot	3/7						
Add Fractions	2/4		Proofreading	2/6						
Subtract Whole Numbers	7/8	+	Language Expression							
Subtract Decimals	2/4		Nouns	2/7						
Subtract Fractions	2/4		Pronouns	5/6	+					
Multiply Whole Numbers	8/8	+	Verbs	4/5	+					
Divide Whole Numbers	8/8	+	Adjectives, Adverbs	3/7						
Spelling										
Sentence Recognition										
Sentence Combining										
Topic Sentence										
Sentence Sequence										
Vowel Sounds										
Consonant Sounds										
Structural Units										

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:

<u>Student</u>	<u>Percentile</u>	<u>Student</u>	<u>Percentile</u>
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:

<u>Student</u>	<u>Percentile</u>	<u>Student</u>	<u>Percentile</u>
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 Center				
TEST DATE	12 JAN 87		GROUP	ABE		SITE		Oakland				
ABBOT JOE	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Sp 11	
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	71	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	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Sp 11	
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	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Sp 11	
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	10 6	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	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Sp 11	
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	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Sp 11	
Scale Score	721	726	723	799	758	778	706	709	708	736	735	
Grade Equiv	5 9	6 4	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	
QUAY SAMUEL	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Sp 11	
Scale Score	723	731	727	804	773	788	692	710	701	739	738	
Grade Equiv	6 3	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	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Sp 11	
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	3	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	R Voc	R Com	R Tot	M Com	M C/A	M Tot	L Mec	L Exp	L Tot	T Bat	Sp 11	
Scale Score	550	590	570	453	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 0	5 8	5 9	7 4	
Mean Xile	36	32	34	38	45	41	33	49	41	38	55	

Figure 10 shows the results of a single purpose test, the Gates-MacGinitie Reading 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

SCORES FOR THE
Gates-MacGinitie
Reading Tests
Second Edition
LEVEL 0 FORM 1

TEACHER MISS BETH YATES
BUILDING LINCOLN ELEM
SCHOOL/DISTRICT NORTH CENTRAL
OTHER INFORMATION

THIS REPORT PREPARED FOR
RACHEL GRIFFITH

DATE OF BIRTH JUNE 1972
MONTH YEAR

GRADE 5

DATE OF TESTING NOV. 1987
SEX FEMALE

PROCESS NUMBER 000-0328-000

TYPES OF SCORES	SCORES		
	Vocabulary	Comprehension	Total
NUMBER OF ITEMS ATTEMPTED	45	43	88
RAW SCORES	33	36	69
NORMAL CURVE EQ. (NCE)	66	80	73
NAT'L. PERCENTILE RANK (PR)	78	92	87
STANINE (S)	7	8	7
GRADE EQUIVALENT (GE)	6.7	9.7	7.7
EXT'D. SCALE SCORE (ESS)	536	594	560

PLOTTED NATIONAL STANINE BAND

TEST AREA

123456789

Vocabulary XXX

Comprehension XXX

Total XXX

MORE ABOUT THE STANINE BAND

The stanine band is plotted in such a manner as to readily determine if the bands overlap. If the bands do overlap, there is no meaningful difference between the test scores. However, if the bands do not overlap, there is a meaningful difference in the scores.

MORE ABOUT THE SCORES
A MESSAGE ABOUT RACHEL'S READING SCORES

RACHEL'S OVERALL READING DEVELOPMENT IS BEST SHOWN IN THE NATIONAL PERCENTILE RANK FOR HER TOTAL SCORE. RACHEL'S PERCENTILE RANK OF 87 MEANS THAT SHE SCORED BETTER THAN 87% OF FIFTH GRADERS NATIONALLY AND THAT 13% SCORED AS WELL AS OR BETTER THAN SHE DID. SO RACHEL'S READING ACHIEVEMENT IS ABOVE AVERAGE FOR HER GRADE.

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										
ST.	LAST 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					
	BELKER, 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	80	581	39	11	7	97	9	91	627	78	10	0	77	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
	HUBERT, 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	50	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	30	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	1	7	24	4	35	460
	VANCE, KEVIN	D 09/71	33	7	7	78	7	66	538	27	6	1	65	6	58	524	60	5	7	2	6	62	531
	WESE, HYRGN	D 03/72	37	7	8	89	7	76	564	28	6	4	88	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 AVG N = 16			NOT INCLUDED = 0																				
ND N = 16			M NCHT = 16																				

PREPARED BY RIVERSIDE SCORING SERVICE

Criterion-reference 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 low performance are easily identifiable so that remedial programs focusing 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: CAMPBELL RUTH P DISTRICT: 999-001 EXAMPLE ISD REPORT DATE: MAY 1987 DATE OF BIRTH: 05/16/72 CAMPUS: 001 BLUEBONNET H S DATE OF TEST: FEBRUARY 1987 DISTRICT STUDENT ID: 007000750 CLASS GROUP: LAURA GARBE GRADE: 09				
SUBJECT AREAS TESTED	OBJECTIVES	MASTERY	ITEMS CORRECT	
MATH	1. EQUIVALENCIES	YES	3	DEMONSTRATED MASTERY OF MINIMUM GRADE NINE MATHEMATICS COMPETENCIES? YES
	2. FRACTIONS (+, -)	YES	3	
	3. DECIMALS (+, -)	-	0	
	4. WORD PROBLEMS (+, -, x, /)	YES	2	
	5. WORD PROBLEMS (RATIO, PROPORTION, PERCENT)	-	0	
	6. PERSONAL FINANCE PROBLEMS	-	0	
	7. WORD PROBLEMS (MEASUREMENT UNITS)	YES	2	
	8. AREA OF RECTANGLES, TRIANGLES	-	0	
	9. PROBABILITY	YES	3	
	10. CHARTS, GRAPHS	YES	3	
	11. FORMULAS	YES	3	
TOTAL OBJECTIVES MASTERED: 7		TOTAL ITEMS CORRECT: 29		SCALED SCORE: 725
READING	1. MAIN IDEA	YES	3	DEMONSTRATED MASTERY OF MINIMUM GRADE NINE READING COMPETENCIES? YES
	2. MEANING OF WORDS	YES	3	
	3. SPECIFIC DETAILS	YES	3	
	4. SEQUENCING OF EVENTS	YES	3	
	5. DRAWING CONCLUSIONS	-	0	
	6. FACT, OPINION	YES	3	
	7. CAUSE-AND-EFFECT	-	0	
	8. GENERALIZATIONS	YES	3	
	9. AUTHOR'S POINT OF VIEW	YES	3	
	10. REFERENCE SOURCES	YES	3	
	11. GRAPHIC SOURCES	YES	3	
TOTAL OBJECTIVES MASTERED: 9		TOTAL ITEMS CORRECT: 34		SCALED SCORE: 749
WRITING	1. CAPITALIZATION	YES	4	DEMONSTRATED MASTERY OF MINIMUM GRADE NINE WRITING COMPETENCIES? NO
	2. PUNCTUATION	YES	4	
	3. SPELLING	YES	3	
	4. CORRECT ENGLISH USAGE	YES	3	
	5. SENTENCE STRUCTURE	YES	4	
	6. PROOFREADING	YES	4	
MULTIPLE-CHOICE OBJECTIVES MASTERED: 6		TOTAL ITEMS CORRECT: 22		
PERSUASIVE WRITTEN COMPOSITION RATING: 1				SCALED SCORE: 663
				9017-05970-01234

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

CONFIDENTIAL
TEXAS EDUCATIONAL ASSESSMENT OF MINIMUM SKILLS
OF 15-21 CAMPUS HOUSER--ALL STUDENTS

		BASIC OBJECTIVES											SCALED SCORE		PASSAGE OF READING TEST				
		1	2	3	4	5	6	7	8	9	10	11							
		MAIN TOPIC	READING OF WORDS	READING OF WORDS	READING OF WORDS	READING OF WORDS	READING OF WORDS	READING OF WORDS	READING OF WORDS	READING OF WORDS	READING OF WORDS	READING OF WORDS							
REPORT DATE	DATE OF TESTING	GRADE	CAMPUS	DISTRICT	STUDENT NAME	DATE OF BIRTH	1	2	3	4	5	6	7	8	9	10	11	SCORE	PASST
MAY 1987	FEBRUARY 1987	09	001 BILLESOPHET H S	999-001 EXAMPLE ISD	ADAMS	01/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					COOK	02/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					DAVIDSON	03/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					DEWITT	04/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					FRANKS	05/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					GEORGE	06/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					HARRIS	07/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					HAYES	08/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					JOHNSON	09/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					KELLEY	10/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					LEWIS	11/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					MARTIN	12/01/87	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					MURPHY	01/01/88	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					NEEDHAM	02/01/88	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					OLIVER	03/01/88	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					PERKINS	04/01/88	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					ROBERTS	05/01/88	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					SMITH	06/01/88	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
					WILSON	07/01/88	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	750	YES
TOTAL STUDENTS TESTED:						28												750	YES

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-dept' 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 the 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.

1. 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, mad.
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 and 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 standard 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 at 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 value.
- 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

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 1 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

ABLE 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 MacGinitie 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 BY	TEST GIVEN BY & HOW IT WAS GIVEN	TIME NEEDED TO GIVE TEST	TEST WAS GIVEN	RESULTS USED TO OBTAIN GRADE, INSTRUCTIONAL LEVEL
YABE	Mc Graw Hill	Placement 93 Pretest 71	1st Day 95	Teacher 93 Individually 89	More than one sitting, 44	English Written 100 100	G. E. 52 Instr. L. 37
WRAT	Guidance Associates	Placement 100 Pretest 53	1st Day 93	Teacher 93 Individually 93	1 Hour 47	English Written 100 100	G. E. 67 Instr. L. 27
ABLE	Psychological Corp.	Placement 92 Pretest 50	1st Day 100	Teacher 92 Individually 100	1 Hour 40	English Written 100 100	G. E. 60 Instr. L. 27
GED	Cambridge	Placement 67 Pretest 89	1st Day 67	Teacher 100 Individually 100	No time limit 44	English Written 78 100	G. E. - Instr. L. 55
Gates-Mac Ginitie	Riverside	Placement 100 Pretest 63	1st Day 75	Teacher 100 Individually 100	1 Hour 63	English Written 100 100	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 Written 100 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 Written 100 100	G. E. 83 Instr. L. 50
The Five Subject Area GED Tests	Cambridge	Placement 2 Pretest 3	1st Day 2	Teacher 3 Individually 3	1 Hour 2	English Written 4 4	G. E. - Instr. L. 1
Reading Progress Scale	Revrac Publications	Placement 3 Pre/Posttest 2	1st Day 3	Teacher 3 Individually 2	Less than 30 min. 3	English Written 3 3	G. E. 1 Instr. L. 2
San Diego Quick Assessment	TRENDS	Placement 3 Pre/Posttest 1	1st Day 3	Teacher 3 Individually 3	Less than 30 min. 2	English Oral 3 3	G. E. - Instr. L. 3
Stossun Oral Reading Test	Stossun Educational Publications	Placement 3 Pre/Posttest 2	1st Day 2	Teacher 3 Individually 2	Less than 30 min 3	English Oral 3 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%

† 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, INSTRUCTIONAL LEVEL
Math Test * ¹	Lubbock ABE	Placement Pre/Posttest 2 1	1st Day 2	Teacher Individually 2 2	1 Hour 2	English Written 2 2	G. E. - Instr. L. 2
NCAL * ¹	Literacy Volunteers of America	Placement Pretest 2 2	1st Day 2	Literacy C Individually 2 2	No time limit 2	English Oral 2 2	G. E. - Instr. L. 2
Basic Essentials of Math * ¹	Steck-Vaughn	Placement Pretest 1 1	1st Day 1	Teacher Individually 1 1	2 Hours 1	English Written 1 1	G. E. - Instr. L. 1
Botell Reading Inventory * ¹	Steck-Vaughn	Placement - 1 1	1st Day 1	Sec/Teacher/ Aide 1 1	Less than 30 min 1	English Written 1 1	G. E. 1 Instr. L. -
Corrective Reading Mastery Tests * ¹	Science Research Associates, Inc	Placement Pre/Posttest 1 1	1st Day 1	Teacher Individually 1 1	Less than 30 min 1	English Oral 1 1	G. E. - Instr. L. 1
GEO-100 * ¹	Steck-Vaughn	Placement Pretest 1 1	1st Week 1	Teacher Individually 1 1	No time limit 1	English Written 1 1	Percentile 1 Instr. L. -
Introduction to English (1972) * ¹	Cambridge	Placement Pretest 1 1	A certain week 1	Self Individually 1 1	Not timed 1	English Written 1 1	G. E. - Instr. L. 1
Nelson Denning Reading * ¹	Psychological Corp.	Placement Pre/Posttest 1 1	1st Day 1	Teacher Indiv/Group 1 1	1½ hrs/ 1 sitting 1	English Written 1 1	G. E. 1 Percentile 1
Placement Survey for ABE * ¹	Steck-Vaughn	Placement - 1 1	Monthly 1	Teach/Aide Indiv/Group 1 1	2 Hours 1	English Written 1 1	G. E. - Instr. L. 1
Specific Skills Series * ¹	Arnell Loft	- 1 1	1st Day 1	Teacher Individually 1 1	1 1	English Written 1 1	G. E. - Percentile 1
GEO Preparation * ¹	Contemporary	Placement Pretest 1 1	1st Day 1	Teacher Group 1 1	- 1	English Written 1 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

-77-

	Percentage of Teachers Rating "Very Good to Excellent" on the Survey																					
	TABLE	WRAT	ABLE	GED	Gates-Mac Ginitie	Gen. Ed. Performance Index	Reading for Understanding	The 5 S's - Area GED Tests	Reading Progress Scale	San Diego Quick Assessment	Johnson Oral Reading Test	Main 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	83	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	1	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	1
h Cost effective (to administer, duplicate)	44	33	75	67	63	67	100	2	1	3	3	2	1	1	1			1	0	1	1	0

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

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).

1. ESL INTERVIEW QUESTIONNAIRE

The ESL Interview Questionnaire guide asks the student to respond orally to questions concerning his/her personal 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 the 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 69	1 hour 44	English 100 Written 89	Instr. L. 4/
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
Leubach 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 Achievement Test/R *1	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 *
Modern Oral Inventory	TRENDS, U. of Nebraska-Lincoln	Placement 1	1st Day 1	Teacher Individually 1	30 Min. 1	English Oral 1	Instr. L. 1
Modern American English (Dixson)	Regents Publishing Company	Placement Pre/Posttest 1	1st and Last Day 1	Teacher Individually 1	1-1/2 Hours 1	English Written 1	Instr. L. 1
New Perspectives	Delta Systems Co., Inc.	Pre/Posttest 1	After Studing 1	Teacher Group 1	1 Hour 1	English Oral Written 1	G. E. 1
Official FED Practice Tests	Cambridge	Placement 1	1st Day 1	Teacher Individually 1	Varies 1	English Written 1	Instr. L. 1
Passage to ESL Literacy	Delta Systems Co., Inc.	Placement 1	1st Day 1	Staff Ind./Group 1	30 Min. 1	English Written 1	Instr. L. 1
Placement Survey for ABE	Steck-Vaughn	Placement Posttest 1	Varies 1	Teacher Individually 1	2 + Hours 1	English Written 1	Instr. L. 1
READ	Literacy Volunteers of America	Placement Pre/Posttest 1	1st Day 1	Teacher Individually 1	Not Timed 1	English Oral 1	Instr. L. 1
Side by Side	Cambridge (Molinsky, Bliss)	Posttest 1	After Studing 1	Teacher Group 1	2 + Hours 1	English Written 1	Instr. L. 1
Students Needs Assessment	TESOL Newsletter (W-1985)	Assessment 1	1st Day 1	Staff Ind./Group 1	30 Min. 1	English Native 1	Instr. L. 1
Test of English As a Foreign	Education Testing Service	Pre/Posttest 1	1st Week Monthly 1	Teacher Group 1	1-1/2 Hours 1	English Written 1	Instr. L. 1
ESL Placement Test	Christine Lee Trends	Placement Pretest 1	1st Day 1	Teacher Individually 1	1 Hour 1	English Oral/Written 1	Instr. L. 1

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

SUMMARY OF TESTS USED

ESL

		Laado English Series	New Horizons in English	Lalibach Way to Reading	* SLOs	ESL Placement	Walsh ESL Placement	WAPT-R	Dotell 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	REAP	Side by Side	Student's 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)	89	1	3	2	0	2	0	1	1	1	1	1	1	1	1	1	0	0	0	1	0	1	

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

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 exist; 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 practice tests should be given prior to the actual test so that students 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 understanding 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 handicapped 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.

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 educational 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 BY	TEST GIVEN BY & HOW IT WAS GIVEN	TIME NEEDED TO GIVE TEST	TEST WAS GIVEN	RESULTS USED TO OBTAIN GRADE, INSTRUCTIONAL LEVEL
Official GED Practice Tests	Cambridge	Pretest 70 Posttest 68	1st Day 34 Prior to GED 37	Teacher Individually 93 93	Over 2 Hours 31	English Written 100 100	Instr. L. 63 Percentile 11
TABE	CTB/McGraw-Hill	Placement 91 Pretest 67	1st Day 91	Teacher Individually 100 76	Over 2 Hours 33	English Written 100 99	G. E. 67 Instr. L. 52
General Educational Performance Index	Steck-Vaughn	Pretest 67 Posttest 73	1st Day 50	Teacher Individually 93 97	More than one sitting 43	English Written 100 100	Instr. L. 60 Percentile 47
WRAT	Guidance Associates	Placement 100 Pretest 65	1st Day 80	Teacher Individually 85 85	1 Hour 45	English Written 100 95	G. E. 60 Instr. L. 50
Passing the GED Predictor tests	Scott Foresman	Pretest 75 Posttest 70	Prior/GED 40 1st Day 39	Teacher individually 100 80	1 Hour 35	English Written 100 95	Instr. L. 100 Percentile 15
The Five Subject Area GED Tests	Cambridge	Pretest 85 Posttest 77	1st Week A certain week 31 31	Teacher Individually 100 69	1 Hour 46	English Written 100 100	Instr. L. 77
ABLE	Psychological Corp.	Placement 89 Pretest 44	1st Day 100	Teacher Individually 100 100	1 Hour 56	English Written 100 100	Instr. L. 67 G. E. 56
TABE Locator	CTB/McGraw-Hill	Placement 100	1st Day 100	Teacher 100	Less than 30 Min. 80%	English Written 100 100	Instr. L. 100
Gates-MacGinitie *	Riverside	Placement 4 Pretest 3	1st Day 4	Teacher Individually 4 4	1-1/2 Hour 3	English Written 4 4	G. E. 2 Instr. L. 2
Reading for Understanding *	Science Research Associates	Placement 4	1st Day 4	Teacher Individually 4 4	Less than 30 Min. 2	English Written 4 4	G. E. 4 Instr. L. 1
Reading Progress Scale *	Revrrac Publications	Placement 4	1st Day 4	Teacher Individually 3 3	Less than 30 Min. 3	English Written 4 4	Instr. L. 2 G. E. 2
Basic Essentials of Math *	Steck-Vaughn	Placement 2	1st Day 1 1st Week 1	Teacher Group 2 2	1-1/2 hours 2	English Written 2 2	Instr. L. 1 G. E. 1
CAT *	CTB/McGraw-Hill	Placement 3 Posttest 2	1st Day 3	Teacher Individually 2 2	Not Timed 2	English Written 2 2	G. E. 2
Computer Drill & Instruction: Mathematics Level D *	Science Research Associates	Placement 2	1st Week 2	Teacher Individually 2 2	1 Hour 2	English Computer 2 2	Instr. L. 2
GED Test *	Dallas ISD	Pretest 2 Posttest 2 Attitude 2	1st Week 2	Teacher Individually and Group 2 2	1 Hour to 1-1/2 Hours 2	English Written 2 2	Percentile 2
Cambridge Instruction to English (1972) *	Cambridge	Placement 2 Pretest 2	1st Day 1 Certain Week 1	Teacher Individually 2 2	Not Timed 1 1 Hour 1	English Written 2 2	Instr. L. 2
Pre-GED Programming Math Skills *	Cambridge	Ongoing Mastery 2 Placement 1	1st Week 1 Monthly 1	Teacher/Aide Individually 2 2	1 Hour 2	English Written 2 2	Instr. L. 2
Working with Numbers *	Steck-Vaughn	Placement 2	1st Day 1 1 Week 1	Teacher Indiv./Group 1 1	No Time Limit 1	English Written 2 2	G. E. 2
Adult Education Pre-Test *	CTB/McGraw-Hill	Placement 1	1st Day 1	Teacher Individually 1 1	1-1-1/2 Hours 1	English Written 1 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 Less teachers reviewed this test, numbers given are by response, not percentage

SUMMARY OF TESTS USED
GED (Continued)

TEST	PUBLISHER	PERCENTAGE USING TEST FOR	PERCENTAGE ADMINISTERING TEST BY	TEST GIVEN BY & HOW IT WAS GIVEN	TIME NEEDED TO GIVE TEST	TEST WAS GIVEN	RESULTS USED TO OBTAIN GF-DE, INSTRUCTIONAL LEVEL
Botell Reading Inventory (Form A) *	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 *	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 *	Steck-Vaughn	Placement 1	1st week 1	Teacher 1 Individually 1	Not Timed 1	English 1 Written 1	Percentile 1
High School Equivalency Exam *	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 *	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 *	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 *	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 *	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 *	TRENDS	Placement 1	1st Day 1	Teacher 1 Individually 1	Less than 30 Minutes 1	English 1 Oral 1	Instr. L. 1
Science *	ESC-Region 9	Placement 1	1st Day 1	Teacher 1 Individually 1	1 Hour 1	English 1 Written 1	Percentile 1
Social Studies *	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) *	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

	Percentage of Teachers Rating "Very Good to Excellent" on the Survey															
	Official GED Practice Test	TAMC	Gen. Ed. Perform Index	n2AT	Passing the GED Predictor Tests	The Five Subject Areas of GED Tests	ABLE	* Gates-MacGinitie	* Reading for Understanding	* TABE-Progress Scale	* TABE-Locator	* BASIC Essentials of Math	* CAT	* Computer Drill/Inst. Math	* GED	
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.

SUMMARY OF TESTS USED
GED (Continued)

	Percentage of Teachers Rating "Very Good to Excellent" on the Survey															
	*Cambridge Introduction To English (1972)	*Pre-GED Skills	*Working with Numbers	*Adult Education - Pretest	*Botell Reading Inventory	*English Essentials	*GED-100	*High School Equivalency Exam	*Math	*New GED	*Reading & Writing Skills	*Stosson Oral Reading Skills	*San Diego Quick Reading Test	*Science	*Social Studies	*Writing Skills
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 SCHOOL
(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	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					
TABE	GIS-McGraw Hill	Placement Pretest	92 60	1st Day 100	Counselor Group	80 80	2 + Hours	80	English Written	100 100	G. E. Instr. L.	60 40
English for a Changing World *1	Scott Foresman	Placement	2	1st Day 2	Teacher Individually	2 2	30 Min.	2	English Oral	2 2	Instr. L.	1
APL	American College Testing Program	Placement	1	1st Day 1	Staff Individually	1 1	2 + hours	1	English Written	1 1	G. E.	1
New Voyages in English	Losoya University Press	Placement	1	1st Day 1	Teacher Individually Group	1 1 1	1 Hour	1	English Written Oral	1 1 1	Instr. L.	1
TEAMS Exit Level	TEAMS	Pretest	1	Twice/Year 1	Counselor Group	1 1	No Time Limit	1	English Written	1 1	Instr. L.	1
WRAT	Guidance Associates	Placement Pretest	1 1	1st Day 1	Staff Individually	1 1	No Time Limit	1	Written English Oral	1 1 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 resp. so, not percentages.

SUMMARY OF TESTS USED

CBHS

		Percentage of Teachers Rating "Very Good to Excellent" on the Survey												
		TABE	English for a Changing World *	APL *	New Yo 19es In English *	Teams Exit Level *	WRAT *							
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.

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-made 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 for 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 production, 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

-113-132

	Test 1	Test 2
Author (Publisher/teacher-made):	Name of test:	Name of test:
Form/level:		
Type of class where test is used: (check only one for each test entry)	<input type="checkbox"/> GED <input type="checkbox"/> ABE <input type="checkbox"/> ESL <input type="checkbox"/> CBHS <input type="checkbox"/> Other (specify)	<input type="checkbox"/> GED <input type="checkbox"/> ABE <input type="checkbox"/> ESL <input type="checkbox"/> CBHS <input type="checkbox"/> Other (specify)
If from a basal, series used:		
Type of test/how used: (check all that apply)	<input type="checkbox"/> Placement <input type="checkbox"/> Pretest <input type="checkbox"/> Posttest <input type="checkbox"/> Attitude <input type="checkbox"/> Ongoing mastery <input type="checkbox"/> Vocational <input type="checkbox"/> Learning styles	<input type="checkbox"/> Placement <input type="checkbox"/> Pretest <input type="checkbox"/> Posttest <input type="checkbox"/> Attitude <input type="checkbox"/> Ongoing mastery <input type="checkbox"/> Vocational <input type="checkbox"/> 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 -

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-

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
Baldwin, 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, Illinois 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

Guidance 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
1-800-228-7522

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, Texas 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

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

Riverside Publishing Company
2420 Bryn Mawr Avenue
Chicago, Illinois
0-323-9540

Southwestern Regional Office
8301 Ambassador 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, Apt. #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:
Adult Education ESL Teacher's Guide
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

RESOURCES

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

Berk, Ronald A., ed., A Guide to Criterion-Referenced Test Construction. 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, Handbook on Formative and Summative Evaluation of Student Learning. 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., Creative Classroom Testing. Princeton: Educational Testing Service, 1985.

Sample items of several different types

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

Reliability, validity

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

Item analysis for the classroom test

Educational Testing Service, Multiple-Choice Questions: A Close Look. 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., Basic Guidelines for Improving Classroom Tests. Bensenville, Ill.: Scholastic Testing Service, Inc. 1977.

Types of items for teacher-made tests

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

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

Gronlund, Norman E., Measurement and Evaluation in Teaching. 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, Evaluation in Adult Basic Education: How and Why. Urbana, Ill.: University of Illinois, 1976.

Variation of teaching contexts
Attitudes, expectations, intentions

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

Statistics for the classroom

Harris, David P., Testing English as a Second Language. New York: McGraw-Hill Book Company, 1967

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

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., Developing Attitude Toward Learning. Palo Alto: Fearon Publishers, 1968.

Identifying behaviors that indicate attitudes

Mager, Robert F., Measuring Instructional Intent. Belmont, California: Pitman Learning, Inc., 1973.

Matching test items to objectives
Sample items; exercises

Mager, Robert F., Preparing Instructional Objectives. Palo Alto: Fearon Publishers, 1962.

Writing objectives
Specifying behavior and the criterion

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

Easy to understand statistics

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

Teacher-made tests

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

Teacher-made tests at all cognitive levels

Morris, Lynn L. and Carol T. Fitz-Gibbon, How to Measure Achievement. 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 Measurement. Englewood Cliffs, New Jersey: Prentice-Hall, 1978.

Resource on criterion-referenced tests

Rossmann, 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: Charles 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, Tests of Functional Adult Literacy:
An Evaluation of Currently Available Instruments,
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.

Assessment of Skills in Computation (ASC)
c1978

Developer	Los Angeles Unified School District
Publisher	EDL/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 Sen 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 <u>District Options for Establishing Competency Standards</u> 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 Procedure:	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 Skills Mastery Test

Publisher	Services for Educational Evaluation, Inc. P. O. Box 201 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 year 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 Procedure	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 reactions 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 2-9), 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 <u>mentally</u> 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.

Idaho State Penitentiary Informal Reading Inventory

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 Examinee Student's copy of Word List and stories
Description	The inventory is designed to provide a reading teacher with a student's estimated independent reading level, estimated instructional level, estimated frustration level, estimated listening 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.	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.
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.	Interpretation Procedures.	Information recorded on the Recapitulation Sheet is intended to establish the examinee's <u>estimated</u> 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.

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)
©1970

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 case! 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.

Description -

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 (REAL)

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.	<u>Criterion-referenced</u> -- 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 36). <u>Interpretation of individual Subtests</u> -- 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 Alternate Forms	There are no alternate forms available.
Administration Time	The test is generally untimed, however, the maximum administration time for the two reading sections combined should be less than one hour.
Administration Procedures	The testing conditions are very flexible. The examinee 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 Procedures.	Scoring is done by hand; responses are compared with pre-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 Procedures.	The WITABE was developed to measure differences between 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 available.

Woodcock-Johnson Psycho-Educational Battery
c1973

Authors: Richard W. Woodcock and Mary Bonner Johnson

Publisher: Teaching Resources Corporation
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 description of the norming sample is provided in the Technical Manual. A Test Analysis and Report Service is available which computer and lists all scores called for in the Summary 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.

E0093835 CS201J76

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, D C

Contract No. NEC-O-72-4636

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 (C10)

Journal Announcement RIEMAR75

In the fall of 1972 the Research Foundation of the National Council of 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, standard English as a second language or 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, reliability, and normative data, ordering information, and a list of related documents and references (10).

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 (Composition)

Identifiers *The Research Instruments Project, TRIP

E0223873 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 031 432-434
Sponsoring Agency Illinois State Board of Education,
Springfield Adult and Continuing Education Section
EDRS Price - MF01/PC00 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 Tests, Second Language Instruction, *Testing
Programs, Tests, *Test Selection, Verbal Tests, Writing
Evaluation

EO227996 HC013954
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 R1EAUG83
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 date, 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? Please 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%