


SALVIA • YSSELDYKE

ASSESSMENT

ASSESSMENT IN SPECIAL AND
REMEDIAL EDUCATION



ASSESSMENT IN SPECIAL AND REMEDIAL EDUCATION

John Salvia

The Pennsylvania State University

James E. Ysseldyke

The University of Minnesota

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TO: Jane and Faye
Mary Kate, Amy, and Heather

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Preface

Children have the right to an appropriate education in the least restrictive educational environment. Decisions regarding the most appropriate environment and the most appropriate program for an individual should be data-based decisions. Assessment is one part of the process of collecting the data necessary for educational decision making, and the administration of tests is one part of assessment. To date, unfortunately, tests have sometimes been used to restrict educational opportunities; many assessment practices have not been in the best interests of students. Those who assess have a tremendous responsibility; assessment results are used to make decisions that directly and significantly affect students' lives. Those who assess are responsible for knowing the devices they use and for understanding the limitations of those devices and of the procedures they call for.

Teachers are confronted with the results of tests, checklists, scales, and batteries on an almost daily basis. This information is intended to be useful to them in understanding and making educational plans for the students they are working with. But the intended use and actual use of assessment information have often differed. However good the intentions of those who design tests, misuse and misunderstanding of tests may well occur unless teachers are informed consumers and users of tests. To be an informed consumer and user of tests, a teacher must bring to the task certain domains of knowledge, including a knowledge of the basic uses of tests, the important attributes of good tests, and the kinds of behaviors sampled by particular tests. This text aims at helping teachers to acquire that knowledge.

Assessment in Special and Remedial Education is intended as a first course in assessment for those whose careers require understanding and informed use of assessment data. The primary audience is those who are or will be teachers in special and remedial education at the primary or secondary level. The secondary audience is the large support system for students in special and remedial education: child development specialists, counselors, educational administrators, nurses, preschool educators, reading specialists, school psychologists, social workers, speech and language specialists, and specialists in therapeutic recreation. Writing for those who are taking their first course in assessment, we have assumed no prior knowledge of measurement and statistical concepts.

The text, in four parts, is an introduction to psychoeducational assessment in special and remedial education. Parts 1 and 2 provide a general

overview of and orientation to assessment. Part 1 places testing in the broader context of assessment, describes assessment as a multifaceted process, delineates the fundamental purposes for assessment and the assumptions underlying it, and introduces basic terminology and concepts. Part 2 provides descriptions and examples of the basic measurement concepts and principles necessary for adequate understanding and use of test information.

Part 3 provides detailed discussions of assessment of achievement, intelligence, perceptual-motor skills, sensory functioning, language, personality and adaptive behavior, and readiness. Chapters 10 and 11 are detailed discussions of diagnostic testing in reading and mathematics. Chapter 12 differs from others in Part 3; it is a theoretical overview of the assessment of intelligence. With the exception of Chapter 12, each chapter in Part 3 follows a similar format. Initially, the kinds of behaviors generally sampled by tests within each domain are described. Representative tests are then reviewed. For each test, we describe its general format, the kinds of behaviors it samples, the kinds of scores it provides, the nature of the sample on whom it was standardized, and evidence for its reliability and validity. The technical adequacy of the tests is evaluated in light of the principles set forth in Part 2.

Part 4 is integrative and deals with the application of assessment practices in special and remedial education. Chapter 20 provides detailed examples of how assessment information of various kinds and from various sources should be integrated and interpreted. Chapters 21 and 22 describe ethical and legal principles involved in the collection, maintenance, and dissemination of assessment information. Chapter 23 could be considered both the first and last chapter of the book. It describes the state of the art in assessment—the extent to which the right tests are used for the right purposes, the extent to which fundamental assumptions are met in practice, and the extent to which currently used tests have the necessary technical adequacy to be used in making important educational decisions.

Throughout the text additional readings, problems, and study questions are provided to help readers expand and apply the fundamental concepts developed. Statistical and locating appendixes facilitate use of the text as a basic reference in assessment.

Assessment is a controversial topic; we have attempted to be objective and even-handed in our review and portrayal of current assessment practices.

Many people have been of assistance in our efforts. We wish to express our sincere appreciation to the following individuals who have provided constructive criticism and helpful suggestions during the development of this text: Bob Algozzine; Darwin Chapman; Gary M. Clark of the University of Kansas at Lawrence; Richard LeVan; Joe Muia; T. Ernest Newland;

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This text represents a collaborative effort of the authors in the best sense. We have contributed equally in the writing of the text, challenged one another's ideas, picked at each other's prose, and in this way produced what we believe is an integrated text that speaks for both of us.

J.S. J.Y.

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Part 1

Assessment: An Overview

Assessment data are used on a routine basis to make educational decisions about students. Part 1 describes assessment and is designed to provide an overview of assessment and its role in educational settings.

Chapter 1 is a description of assessment as an integral component in the educational enterprise and a delineation of the kinds of data used in making decisions. Chapter 2 describes the kinds of decisions that assessment data can indicate and discusses the basic assumptions underlying assessment. Chapter 3 presents basic considerations in the selection and administration of tests. The concepts and principles that are introduced throughout Part 1 constitute a foundation for informed and critical use of tests and of the information they provide.

Chapter 1

The Assessment of Children

All of us have taken tests during our lives. In elementary and secondary school, tests were administered to measure our scholastic aptitude or intelligence or to evaluate the extent to which we had profited from instruction. We may have taken personality tests, interest tests, or tests that would assist us in vocational selection and planning. As part of applying for a job, we may have taken civil service examinations or tests of specific skills like typing or manual dexterity. Enlisting in the Armed Forces meant taking a number of tests. Enrolling in college meant undergoing entrance examinations. Those of us who decided to go on to graduate school usually had to take an aptitude test; many of those who became teachers had to take a national teacher examination. Physicians, lawyers, psychologists, real estate agents, and many others were required to take tests to demonstrate their competence before being licensed to practice their profession or trade.

Throughout their professional careers, teachers, guidance counselors, school social workers, school psychologists, and school administrators will be required to give, score, and interpret a wide variety of tests. Because professional school personnel routinely receive test information from their colleagues within the schools and from a variety of community agencies outside the schools, they need a working knowledge of important facets of testing.

According to the joint committee of the American Psychological Association (APA), the American Educational Research Association (AERA), and the National Council on Measurement in Education (NCME), a test “may be thought of as a set of tasks or questions intended to elicit particular types of behaviors when presented under standardized conditions and to yield scores that have desirable psychometric properties . . .” (1974, p. 2). Testing, then, means exposing a person to a particular set of questions in order to obtain a score. That score is the end product of testing.

Testing may be part of a larger process known as *assessment*; however, testing and assessment are not synonymous. Assessment in educational settings is a multifaceted process that involves far more than the administration of a test. When we assess students, we consider the way they perform a variety of tasks in a variety of settings or contexts, the meaning of their performances in terms of the total functioning of the individual,

and likely explanations for those performances. Good assessment procedures take into consideration the fact that anyone's performance on any task is influenced not only by the demands of the task itself but also by the history and characteristics the individual brings to the task and by factors inherent in the setting in which the assessment is carried out. Assessment is the process of understanding the performance of students *in their current ecology*. In fact, much assessment takes place apart from formal testing activity; parents' and teachers' observations may be considered part of assessment. Assessment is always an evaluative, interpretative appraisal of performance. Its goal is simple in one sense, tremendously difficult in another. Briefly, it provides information that can enable teachers and other school personnel to make decisions regarding the children they serve. Yet if the information it offers is misused or misinterpreted, these decisions can adversely affect children and limit their life opportunities.

FACTORS CONSIDERED IN ASSESSMENT

CURRENT LIFE CIRCUMSTANCES

An individual's performance on any task must be understood in light of that individual's current circumstances. We must understand current circumstances to be aware of what a person brings to a task.

In educational assessment, health is a significant current life circumstance. Health and nutritional status can play an important role in children's performances on a wide variety of tasks. Sick or malnourished children are apt to be lethargic, inattentive, perhaps irritable.

Children's attitudes and values also should contribute to our evaluation of their performance. Willingness to cooperate with a relatively unfamiliar adult, willingness to give substantial effort to tasks, and belief in the worth of the task or of schooling have their influence on performance.

Finally, the level of acculturation children bring to a task is of utmost importance. A child's knowledge and acceptance of societally sanctioned mores and values, use of standard English, and fund of general and specific cultural information all influence performance on school-related tasks.

DEVELOPMENTAL HISTORY

A person's current life circumstances are shaped by the events that make up his or her history of development. Deleterious events in particular may have profound effects on physical and psychological development. Physical and sensory limitations may systematically restrict a child's opportunity to acquire various skills and abilities. A history of poor health or poor

nutrition may result in missed opportunities to acquire various skills and abilities. A child's history of reinforcement and punishment shapes what a child will achieve and how that child will react to others. In short, it is not enough to assess a child's current level of performance; diagnosticians must also understand what has shaped that current performance.

EXTRAPERSONAL FACTORS

In addition to the skills, characteristics, and abilities a pupil brings to any task, other factors affect the assessment process. How another person interprets or reacts to various behaviors or characteristics can even determine whether an individual will be assessed. For example, some teachers do not understand that a certain amount of physical aggression is typical of young children or that verbal aggression is typical of older students. Such teachers may refer "normally" aggressive children for assessment because they have interpreted aggression as a symptom of some pathology.

The theoretical orientation of the diagnostician (the person responsible for performing the assessment) also plays an important part in the assessment process. Diagnosticians' backgrounds and training may predispose them to look for certain types of pathologies. Just as Freudians may look for unresolved conflicts while behaviorists may look for antecedents and consequences of particular behaviors, diagnosticians may let their theoretical orientation influence their interpretation of particular information.

Finally, the conditions under which a child is observed or the conditions under which particular behaviors are elicited can influence that child's performance. For example, the level of language used in a question or the presence of competing stimuli in the immediate environment can affect a child's responses.

INTERPRETATION OF PERFORMANCE

After an individual's behavior and characteristics have been considered in light of current life circumstances, developmental history, and extrapersonal factors that may influence performance, the information is summarized. This often results in classification and labeling of the individual being assessed. The assessor arrives at the judgment that when all things are considered, the child "fits" a particular category. For example, a child may be judged mentally retarded, emotionally disturbed, learning disabled, educationally handicapped, culturally or socially disadvantaged, backward, normal, gifted, or a member of the Red Birds reading group.

Assessors, especially when they have assigned negative labels, often attempt to impute a cause for an individual's status. Classification according to cause (*etiology*) is common in medicine but less common in education and

psychology. In some cases the cause of the condition is highly probable. For example, Kevin may be developing quite normally until he sustains a severe head injury, after which his performance and development are measurably retarded. However, in most instances, the causes are elusive and speculative.

PROGNOSIS

All assessments and classifications of children contain an explicit or implicit *prognosis*, a prediction of future performance. A prognosis may be offered for children both in their current environment and life circumstances and in some therapeutic, ameliorative, or remedial environment. For example: "If Rachel is left in her current educational placement, she can be expected to fall further and further behind the other children and to develop problem behaviors. If she is placed in an environment where she will receive more individual attention, she should make more progress academically and socially." Such prognoses are made, it is hoped, on the basis of empirical research rather than speculation.

KINDS OF ASSESSMENT INFORMATION

Although this book is concerned primarily with tests and testing, it is well to remember that a test is only one of several assessment techniques or procedures available to a diagnostician for gathering information. Figure 1.1 shows that there are six general classes of diagnostic-information sources; the classification shown in the figure depends on the time at which the information is collected (current or historical) and how the information is collected (from observation, tests, or judgments).

CURRENT VS. HISTORICAL INFORMATION

Diagnostic information can be categorized according to the currentness of the information: information that describes how a person is functioning now and information that describes how that person has functioned in the past. Obviously, the demarcation between current and historical information blurs, and the point at which current information becomes historical information depends in part on the particular fact or bit of information. For example, if Johnny had his appendix removed *three years ago*, we know he currently has no appendix. On the other hand, if 9-year-old Jane weighed fifty-six pounds *three years ago*, we could not conclude that she weighs the same today.