Guidelines
for
Instruction-Based Assessments
2004

Virginia Department of Education
Division of Special Education and
Student Services
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The Impetus for Change

In Virginia and across the country forces are operating that challenge those who work with students who experience learning and behavior difficulties, leading to new ways of thinking about student assessment and instructional intervention. In particular, the need to link assessment processes with instruction has become paramount. The impetus for change in the area of student assessment will more than likely accelerate in the future.

A developmental challenge for general and special educators in Virginia is implementation of a school reform initiative involving “benchmarking” to define and measure student achievement. Called the Virginia Standards of Learning (SOL), students are tested at various grade levels to determine whether they have achieved at a foundational level, based on core curriculum-based standards for each grade level. One effect of this standard-setting approach, and the measurement system that accompanies it, has been to increase the pressure on classroom teachers to modify teaching methods to insure that students who are not achieving at grade level do so. This increases the need for instructional assistance and support to identify and serve these children.

Further, the landmark federal law No Child Left Behind Act of 2001 (NCLB) legislation requires states to demonstrate progress from year to year in raising the percentage of students who are proficient in reading and mathematics (and science beginning in 2006). It requires annual testing for children in grades 3-8, as well as assessment at middle and secondary levels. Annual statewide progress objectives ensuring that all groups of students reach proficiency within 12 years are mandated, with the further provision that specific objectives be established for four subgroups: (1) students whose families are economically disadvantaged, (2) students from the major racial and ethnic groups, (3) students with disabilities, and, (4) students who are limited English proficient. Both the Virginia SOL and the NCLB assessments are primarily focused on accountability.

For students with disabilities, accountability requirements are associated with emerging perspectives on the need to include (rather than exempt) these individuals in standards-based testing. A recent Virginia Department of Education memo to superintendents summarized these requirements as follows:

It is the intent of the Commonwealth of Virginia to include all students with disabilities in the accountability system. The federal regulations under the Section 504 of the Rehabilitation Act of 1973, as amended, and state regulations under
the Virginians with Disabilities Act, Section 51.5- 40 et seq. of the Code of
Virginia, require that individuals with disabilities be given equal opportunity to
participate in and benefit from the policies and procedures customarily granted to
all individuals. The Individuals with Disabilities Education Act (IDEA) and
Regulations Governing Special Education Programs for Children with Disabilities
in Virginia require that all students with disabilities participate in the Virginia
accountability system either through the Standards of Learning assessments or
the Virginia Alternate Assessment Program. Additionally, the No Child Left Behind
Act of 2001, P.L. 107-110, requires that at least 95% of students with disabilities
participate in assessments used to measure the adequate yearly progress of
schools, school divisions, and the state. Schools, school divisions, or states that
fail to meet the 95% participation requirement will not be considered to have met
the required adequate yearly progress.

In addition to increased accountability requirements, the Individuals with
Disabilities Education Act (IDEA) requires that Individualized Education
Programs (IEP) are tied into the general education curriculum as a
baseline for instructional planning. It also mandates intentional efforts to
facilitate accommodations and supports for students with disabilities
within general education, full access to the general curriculum, and
involvement of general education personnel in the development and
implementation of these instructional plans.

Parallel to the large-scale changes described, there has also been
considerable discussion in the past two decades within special education
of the need to shift from categorical paradigms of diagnosis and eligibility
toward greater emphasis on instructional relevance. Accompanying this
movement has been the development and validation of a variety of
criterion-focused approaches that seek to link assessment directly to
instructional process and content, and associated approaches designed
to support teaching and learning processes. These methods include
curriculum-based assessment (CBA) and curriculum-based measure-
ment (CBM).

With all of these developments in mind, this document begins by recog-
nizing the need for assessments that are more relevant to classroom-
based intervention. More specifically, the paper: (1) describes the need
for instruction-based assessment in more detail; (2) considers the role
and potential contribution of such approaches; and, (3) delineates a set
of aspirational principles and guidelines for implementation.

We hope this document will lead to further discussion, program develop-
ment, training opportunities, emphasis on prevention and early interven-
tion, systems change, and guidance about meaningful instruction-based
assessment, individualized instructional planning and intervention, and
evaluation of learning.
What is Instruction-Based Assessment?

This section summarizes some core definitions, terminology, concepts, and common understandings about instruction-based assessment.

- Instruction-based assessment involves the use of a range of techniques and strategies to gather information that directly supports effective instructional planning, prevention, and intervention.

- Instruction-based assessment is a problem-solving process associated with an important set of learning principles, not a scripted program or a collection of tools and techniques.

- The primary “diagnostic” question within an instruction-based assessment is to determine the match between the child’s needs and instructional activities and interventions, as opposed to determining the child’s diagnosis or eligibility for a special program. In this context, task analysis is required to insure that learning tasks are appropriate to the individual needs of the child.

- Instruction-based assessment is strength-based, and frequently begins with the developmental status of the child in relation to the scope and sequence of the curriculum. The focus is on what the child can do or demonstrate, not merely on skills deficits.

- These approaches to gathering, synthesizing, and using information are relevant for all students, and especially for those who may experience academic or behavioral difficulties in the educational environment. They can complement more traditional program eligibility-focused assessments, and may employ some of the same data-gathering strategies, but are distinguished by their focus on instructional relevance.

- Instruction-based assessment is part of a problem-solving process wherein high quality, technically adequate, and precise data are used to pinpoint learning difficulties, generate hypotheses, formulate effective instructional interventions, and measure student progress and change over time.

- Instruction-based assessment does not rely on a specific instructional theory, assessment technique, or instrument. The specific technique or approach will vary depending on the nature of the instructional problem, the availability of data, resource availability, and issues of practicality. However, data-gathering strategies that employ multiple measures across information sources and settings are likely to yield more
adequate and relevant information that can be used by teachers in classrooms.

- An instruction-based assessment is relevant to the extent that it leads directly to an intervention that has an impact on student learning.

- To a significant extent, instruction-based assessment is grounded in the learning and instructional process, and can be expected to link directly with classroom curricula.

- Assessment is a continuous process that occurs within the classroom on a daily basis (e.g., teacher assessment), as well periodically in a more specialized and detailed manner (e.g., SOL assessment, pre-referral committee, evaluation for special education eligibility).

- Useful assessment tools may range from informal to formal, depending on needs and circumstances. In general, instruction-based assessments rely on broad-based, criterion-referenced, and learning-focused techniques, to include brief work samples, teacher and student interviews, direct observations, reviews of student work products, portfolio analysis, and learning environment assessment. The process focuses on the development and use of meaningful information about a child’s learning needs, based on not only direct educational material but also contextual analysis to include teacher and child interviews, parent interviews (when appropriate and feasible), and an assessment of the learning environment.

- The approach recognizes that learners have unique learning styles, and that they may need to demonstrate understanding or mastery of a particular skill in a manner that is divergent from traditional assessment methods. At the same time, the approach recognizes that alternative methods are subject to issues of reliability and validity.

- Instruction-based assessment should involve trial or diagnostic teaching by a teacher, specialist or consultant to help with the determination of those approaches that are most likely to be successful, and to provide an instructional model for working with the student(s). Instruction-based assessment should help determine the most efficacious instructional method, and provide data for making such determinations. The ability of measurement specialists to assist in data interpretation is underscored.

- Instruction-based assessment is most likely to result in more effective instruction when findings are communicated in a collegial and collaborative atmosphere, and when open-minded and creative solutions are sought.
Who is Likely to Benefit from an Instruction-Based Assessment?

School-age children and youth with learning and behavioral needs are identified and referred for special programs and services for a variety of reasons across the developmental spectrum. In addition to children who receive special education and related services, there are still others who are struggling and in need of some form of support:

- Some children enter school in kindergarten without prerequisite skills and are at a disadvantage educationally. Often, these children have not had adequate opportunities for developmental experiences.

- By the second or third grade, elementary school children are expected to have learned the basic tools of phonological analysis, word identification, and related reading skills, to the extent that they have acquired greater reading fluency and can successfully engage in and comprehend more complex reading tasks. Children who have not mastered the basics of reading are at risk for subsequent school difficulties, and are often referred for special or remedial services at this stage.

- By fourth grade, low scores on local tests have often defined a group of low-achieving students who may need additional educational support.

- In the late elementary school years (grades 3 to 5), disciplinary issues also emerge to include student acting-out, indicators of child anxiety and depression, absenteeism, social problems, and related issues. Many of these problems may be associated with lack of school success.

- Middle school and junior high school are highly turbulent developmental timeframes for students, and their academic and behavioral difficulties frequently are exacerbated by their entry into adolescence.

- By high school, the academic difficulties of youth who have not experienced school success have accumulated, and it is more difficult to engage them in academic activities.

- Students with limited English proficiency are at risk for a range of learning difficulties.

- Across all ages and grades, there are certain critical points that can lead to referral, such as performance on SOL assessments and the decision point regarding promotion to the next grade level.
• Transitions between buildings, grade levels, and school divisions are especially challenging for many students, particularly those with academic vulnerabilities.

For the purposes of these guidelines, instruction-based assessment is not intended to be used solely in the context of the special education eligibility process. Rather, instruction-based assessments that translate into meaningful instructional strategies may be relevant to all students, to include:

• Students whose classroom performance is significantly below par and who have poor grades.

• Students with disabilities who are eligible for special education and related services under IDEA.

• Students who are eligible for services and accommodations under Section 504.

• Students with learning difficulties evidenced by low scores in core academic domains such as reading and mathematics.

• Students with limited English proficiency.

• Students who do not pass SOL assessments at various grade levels.

• Low-achieving students with apparent problems in learning-related skills, such as memory, communication, comprehension, organization, processing speed, attention, and expression.

• Students whose school performance is highly variable across subject areas.

• Students who experience behavioral and disciplinary problems that are associated with academic difficulties.

• Others who may be at risk due to a variety of educational, familial, social, and behavioral factors.

On a broader level, instruction-based assessments are useful in identifying the curricular demands at various levels, delineating the most salient instructional strategies, anticipating roadblocks to learning, and providing for early intervention at the first sign of difficulty.
Guidelines for Instruction-Based Assessments

In this section, aspirational guidelines for the use of instruction-based assessment is provided within three domains: (1) general principles and concepts; (2) conducting appropriate and relevant assessments; and (3) linking assessment to instruction. These guidelines assume that not all situations will require a comprehensive assessment, and that elements of the process may be more practical or relevant give certain issues and concerns. It is also recognized that not all approaches or measures will have the same technical characteristics, and that assessors (e.g., teachers, specialists) will need to consider factors such as proficiency, effort required, practicality, and cost in designing an appropriate and useful instruction-based assessment. Instructional issues vary in complexity, and not all situations warrant comprehensive approaches. The core issue is whether the assessment results in more effective instruction and student learning.

General Principles and Concepts

• Instruction-based assessment is part of a systematic problem-solving process that involves identifying and defining instructional concerns, generating hypotheses and predictions about the nature of the concern, gathering data about the scope of the concern, understanding the concern in context, delineating goals for solving the concern, implementing interventions based on these goals, monitoring progress, and decision making about outcomes.

• Instruction-based assessment is conducted in the context of collaborative and on-going interaction between the teacher, other school professionals, and student, with the shared goal of improving learning.

• Instruction-based assessment involves parents at appropriate points in the process. When the decision in question involves special education and related services, informed consent and due process requirements must be addressed.

• Instruction-based assessment is employed across the spectrum of general, special, and remedial programs in schools to support all learners who may be having difficulty.

• Instruction-based assessment is designed and implemented in a fair and ethical manner: (1) taking into account developmental, cultural, linguistic, ethnic, and related factors that can affect student performance; (2) recognizing legal issues of confidentiality, privacy, and due process; (3) controlling potential misuse and misinterpretation (with respect both to teachers and students); (4) assuring high professional standards for development, administration, scoring, and interpretation; and, (5) ensuring that results are used in appropriate, legal, and meaningful ways to improve student performance.

• Instruction-based assessment is relevant to the problems and issues students experience in classrooms, and focus on data gathering that is specific to the instructional concerns at hand.

• Instruction-based assessment serves to improve the capacity of all school personnel (i.e., teachers, specialists, supervisors) to create and sustain individualized instructional interventions for struggling learners.

Conducting Appropriate and Relevant Instruction-Based Assessments

• Instruction-based assessment focuses on academic skills sampled directly from specific curriculum materials or skill sequences, using the most direct means of measurement available to portray current functioning and conduct task analysis.

• Instruction-based assessment is framed in the context of what the student knows and can do (student strengths model), and not merely what skills have not yet been mastered (deficit model). Assessment helps to determine what the student knows, what the student does, and how the student thinks.

• Instruction-based assessment is always contextual and addresses the complex interplay between student, curricular, and classroom variables that account for success or failure in learning.

• Instruction-based assessment is conducted by professionals with specific training and expertise in the area of concern, including teachers (general and special education), assessment specialists
(school psychologists, educational diagnosticians), and content- or subject-matter specialists (speech/language clinicians, reading specialists).

• As part of the process, instruction-based assessment includes data-gathering methods based on one or more of the following broad categories of techniques: (1) interviews of students and teachers; (2) examination of permanent products such as work samples and cumulative records; (3) direct observation of student learning behavior; (4) direct assessment of student performance; and, (5) diagnostic teaching (as appropriate).

• Instruction-based assessment may include information about a student’s cognitive skills and abilities, affective/emotional skills, sensory and perceptual skills, social and interactional skills, behavior repertoire, and any physical characteristics that may affect learning (if warranted).

• Instruction-based assessment considers historical and current information about a child’s background and development to the extent the information contributes to an understanding of the child’s learning repertoire and informs meaningful instructional intervention.

• Instruction-based assessment often uses multiple methods of data gathering across multiple settings, using multiple sources of information.

• Instruction-based assessment emphasizes open-ended hypothesis-testing and data-based decision making to identify strengths and needs that affect student learning, and changes over time.

• Instruction-based assessment relies on frequent and repeated assessment of student performance to improve accuracy and estimate changes or trends over time.

• Instruction-based assessment focuses on comparing individual student performance against a defined standard or to the student’s prior performance, rather than to a normative standard. Peer or norm comparisons may be useful benchmarks to make judgments about the severity or uniqueness of problems, but instruction-based assessments begin with the presumption that each student has a unique constellation of needs, each has an idiosyncratic learning trajectory, and each will respond to interventions differentially.
• Instruction-based assessment is technically adequate (i.e., reliable and valid) for the purposes for which they are used. Interpretations of data derived from such assessments should take into account sources of measurement error, magnitude of error variance, test reliability (including inter-rater reliability), content validity of measures, and measurement standards associated with criterion-referenced assessment.

• Instruction-based assessment seeks to measure the student’s repertoire of acquired skills within the area of concern, as well as delineate the skills the struggling learner has not yet acquired but is expected to master.

• Instruction-based assessment measures task-related learning behaviors such as academic engaged time, study skills, learning strategies, and motivation.

• Instruction-based assessment makes determinations about whether a student’s learning difficulties represent a skills problem (i.e., the student has not acquired the necessary skill or its prerequisites) or a performance problem (i.e., student has acquired the necessary skills but is not displaying them).

• Instruction-based assessment seeks to measure classroom and curricular variables that affect the instructional process, including (but not limited to) scope and sequence, stimulus features of instructional materials, reading level of texts and material, class size, physical environment of the classroom, classroom climate and organization, speed and timing of presentation and movement through the curriculum, seating position, instructional groups, classroom rules and expectations, opportunities for drill and practice, instructional equipment and supplies, and grading/evaluation techniques.

• Instruction-based assessment takes into consideration teacher variables that affect instruction, including (but not limited to) prompting and cueing to maintain student attention, questioning techniques, reinforcement contingencies to motivate and focus students, error correction techniques, grading, and management of student behavior.
Linking Assessment to the Instructional Process

• Instruction-based assessment results in a clear, concise, and coherent plan of action that outlines the identified concern(s), hypothesizes about the nature and scope of the concern, delineates goals and methods for the intervention, states methods for assessing change over time, makes clear who will be responsible for implementation and supervision of the intervention program, and lists expected or intended outcomes for the intervention.

• Instruction-based assessment includes intervention-related recommendations for curricular variables to focus on, alternative methods and materials to be used with the child, and classroom and teacher variables that require modifications to enhance the learning environment.

• Instruction-based assessment complements functional behavioral assessments for students with behavioral difficulties.

• Instruction-based assessment links findings with goals for performance improvement and intervention strategies to attain these goals.

• Instruction-based assessment delineates on-going supports that will need to accompany instructional interventions that derive from their use.

• Instruction-based assessment results are communicated clearly to all who will participate in the intervention, with opportunities to discuss the practical realities associated with implementation.

• Instruction-based assessment results are considered and integrated by various school teams of professionals with diverse areas of expertise (e.g., assessment, instructional supervision), in consultation with parents when appropriate, in order to arrive at a coherent set of strategies for intervention.

• Instruction-based assessment may help to create local and regional norms to enable limited comparisons with age- and grade-level peers, thereby enabling decision-making that recognizes individual differences within a normative range of educational skills and responses (rather than a narrow benchmark or cut-off score).

• School professionals and school divisions improve and expand information systems that will enable effective instruction-based
assessment and planning, including capacity for more reliable archival record review, creating formal links between curricula and standards of learning, better means for tracking alternate assessment approaches, methods for documenting teaching and classroom variables, and student progress tracking that is tied to explicit skill sequences.

- School professionals and school divisions enhance their ability to conduct and utilize instruction-based assessment through on-going training and support, instructional supervision, and program evaluation.
Instruction-Based Assessment: Contributions to Learning and Achievement

To summarize, there are a number of potential contributions this approach to thinking about instruction-based assessment can make to facilitate learning. Instruction-based assessment:

• Leads to the identification of appropriate instructional strategies and materials for use with a particular child, and is especially relevant to those with unique learning challenges who are at risk for educational failure.

• Provides a methodology to assess the progress of learners toward improving rates of learning and mastery of specific skills, and can help to predict future learning progress.

• Pinpoints and portrays student performance by identifying both strengths and areas of difficulty, without losing perspective on developmental benchmarks and peer- or normative referencing.

• Complements information derived through other assessment approaches and strategies, such as norm-referenced measurement.

• Provides a framework for giving feedback to students about their progress that is both task-specific (i.e., it is grounded in the task at hand) and person-specific (i.e., it does not involve comparisons to other students).

• Leads to practical, concrete, and specific explanations to parents and students, minus the use of a great deal of measurement jargon. Instruction-based assessment lends itself to simple graphical portrayals that are data-oriented.

• Shifts the focus from eligibility determination to instruction, and from regulatory compliance to teaching and learning. In doing so, resources (e.g., time and effort) are better utilized and instructional capacity (e.g., teacher skills) is enhanced.

• Is consistent with the intent of a variety of regulatory requirements, including IDEA, No Child Left Behind, and the Virginia Standards of Learning.

• Provides for a common language system that is at the core of the educational endeavor, and that cuts across the various specialties and professions within education.
• Is a collaborative process involving teachers, parents, and assessment professionals that yields instructional interventions which are likely to be viewed by all as acceptable and appropriate.
Suggested Reading


Links to Related Websites

The Difference Between Curriculum-Based Assessment and Curriculum-Based Measurement: A Focus on Purpose and Result., Matthew K. Burns, Lara L. MacQuarrie & Donna T. Campbell (From the NASP Communiqué, Volume 27, No. 6)

http://www.nasponline.org/publications/cq276cba.html

2000-2003 Charlotte Alternate Assessment Model Project

A Collaboration Between UNC Charlotte and Charlotte Mecklenburg Schools Exceptional Children’s Services Funded by the U.S.Department of Education OSERS Grant #H324M00032

http://www.uncc.edu/aap/aap.asp?FileName=introduction

An Explanation of Curriculum-Based Measurement

http://www.learningclinic.com/cbm/WhatsCBM.pdf

Iowa Alternate Assessment Approach, called RIOT (Review, Interview, Observe, Task)

(See slides 24-32 in particular)

http://www.state.ia.us/educate/ecese/cfcs/altassess/doc/iaa03.pdf

Connecting Performance Assessment to Instruction: A Comparison of Behavioral Assessment, Mastery Learning, Curriculum-Based Measurement, and Performance Assessment. ERIC Digest E530.

http://www.ericfacility.net/ericdigests/ed381984.html
Guidelines for Participation /VAAP
Albemarle County Public Schools

http://k12.albemarle.org/SpecialEducation/Forms/60.10.pdf

Literature Review: Recent Research on Curriculum Based Evaluation of Reading Skills, Pem Lewis Wilson, Georgia State University

http://education.gsu.edu/hdangel/EXC_7130/EXC7130-CBE-Reading.htm

Knowledge and Skills of Assessment in General Education

http://hdcs.fullerton.edu/sped/homeprogramdocument/level1/category2/standard19.htm

Curriculum Based Assessment
Oregon Department of Education

http://www.ode.state.or.us/sped/spedareas/eiesce/cba.htm
Glossary of Some Key Terms and Concepts

**Alternative assessment** - an assessment technique other than traditional norm-referenced or criterion-referenced measures, such as portfolios, interviews, and observations.

**Assessment** - the process of gathering information to make a decision.

**Baseline** - the functional level of student performance at the beginning of the intervention process.

**Benchmark** - measurement of student performance in relation to an established standard or cut-off score, indicating mastery or attainment.

**Competency test** - a test designed to insure that a student has met certain minimum or essential standards of skills and/or knowledge.

**Content standards** - specification of what students should know and be able to do in various subject matter areas, such as reading, mathematics, and science (e.g., SOLs).

**Criterion-referenced test** - a test that measures specific knowledge or skills mastered by a student in relation to standard (criterion) rather than a comparison to a group norm.

**Curriculum** - the content that is planned for delivery to students, delineated with respect to scope and sequence of methods and materials, and focused by intended learning outcomes.

**Curriculum-based assessment (CBA)** - a general term referring to school-based assessment that measures student performance in direct relationship to what is being taught.

**Curriculum-based test** - a measurement approach designed to directly measure student functioning in relation to skills and knowledge specifically defined in the curriculum.

**Curriculum-based measurement (CBM)** - a tool for measuring student competency and progress in basic skill areas such as reading fluency, spelling, math, and written language. CBM uses “probes” developed from the district curriculum to measure what students are taught.
**Instruction** - the organized provision of information, opportunities, and resources to promote the development of a repertoire of knowledge and skills.

**Instructional goal** - a statement of what students are expected to learn in a given lesson, unit, course, program.

**Instrument** - a device used to collect data, information, and evidence. Devices can include tests, questionnaires, application forms, interview schedules, checklists, rating scales, and observation records.

**Learning environment** - the setting in which student instruction occurs.

**Lesson** - the content that is to be taught or the activity that is to be accomplished during a specific period of instructional time.

**Norm-referenced test** - a test that is designed to measure performance in relation to a comparison group. A norm-referenced test tells how the scores of each student or group of students compares to the scores of the original group that took the test.

**Performance indicators** - performance indicators are specific measures that demonstrate achievement. They provide concrete evidence, occurrences, or characteristics of skills, knowledge, understanding, behavior, change, etc.

**Portfolio** - a collection of exemplary student work developed over time, often selected by the student with instructor input.

**Reliability** - the consistency of assessment procedures and instruments. A reliable test will yield similar scores when abilities or knowledge are similar over time time.

**Validity** - the extent to which a test measures what it purports to measure.

**Work samples** - representative products of student work, such as assignments, tests, and worksheets that can serve to identify strengths and problems, and may help in diagnosing learning difficulties in direct relationship with the curriculum.
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