

NATIONAL CENTER ON STUDENT PROGRESS MONITORING

STANDARD PROTOCOL FOR EVALUATING PROGRESS MONITORING TOOLS

March 2007

*The Center's conception of **progress monitoring** focuses on decision making to inform instruction for individual students in general and special education with respect to academic skill development at the elementary grades. This progress monitoring is conducted frequently (at least monthly) and is designed to (a) estimate rates of improvement, (b) identify children who are not demonstrating adequate progress and therefore require additional or alternative forms of instruction and/or (c) to compare the efficacy of different forms of instruction and thereby design more effective, individualized instructional programs for at-risk learners.*

Please Read Before You Start

Q1. *The protocol requires information that is not currently available. Can I still submit my progress monitoring tool?*

- **Yes.** The Standard Protocol for Evaluating Progress Monitoring Tools (protocol) is designed to collect comprehensive and detailed information on the submitted progress monitoring tools to ensure strenuous evaluation of the rigor of the tools. Therefore, tools that are undergoing improvements or are in early phase of development may not have all the information that the protocol asks for. Please provide as much information available as possible.
- If it is found that your submission packet needs substantial amount of supplemental information or is missing critical information, the entire packet will be returned to you. A revised protocol packet with additional information may be re-submitted.

Q2. *I am not familiar with some of the terms in the protocol, and thus, I am not sure what information I should provide. What should I do?*

- Center staff will be available to answer your questions or to assist you completing the protocol for submission. Please contact the National Center on Student Progress Monitoring:

National Center on Student Progress Monitoring
American Institutes for Research
1000 Thomas Jefferson Street, NW
Washington, DC 20007

Phone: (202) 403-6922
E-mail: studentprogress@air.org

Q3. *My progress monitoring tool assesses both reading and mathematics dimensions. Do I need a separate protocol for each content area?*

- **No.** However, if your tool assesses more than one content area, you **MUST** submit **separate Section III** for **EACH** content area. For example, if your tool measures dimensions of reading and mathematics, TWO separate Section IIIs -- one for reading and another for mathematics area -- should be submitted. You do **NOT** need to repeat Sections I and II.

Q4. *Can I submit a tool to be evaluated for BOTH General Outcome Measurement (GOM) and Mastery Measurement (MM)?*

- **Yes.** However, please fill out BOTH GOM and MM sections in the protocol. Also, please provide TWO separate sets of evidence – one set which addresses the standards for GOM and another set which addresses the standards for MM.

Q5. *Can I use indirect evidence to support the technical adequacy of the tool?*

- **Yes.** However, the TRC strongly encourages the vendors to submit direct evidence. Data collected from the actual use of a tool provides stronger evidence of technical adequacy.
- If you are submitting indirect evidence, please make sure the cited studies address CBM progress monitoring and the evidence supports your tool.

SECTION I: BASIC INFORMATION

A. TOOL

Title: _____
Developer: _____
Publisher: _____ Pub. Date: _____
Contact Person: Name _____
Telephone: _____
Email Address: _____

B. DESCRIPTIVE INFORMATION

Description of tools:

1. The tool is intended for use in grade(s)
(Check all that apply):

- | | |
|---------------------------------------|---|
| <input type="checkbox"/> Kindergarten | <input type="checkbox"/> Third Grade |
| <input type="checkbox"/> First Grade | <input type="checkbox"/> Fourth Grade |
| <input type="checkbox"/> Second Grade | <input type="checkbox"/> Fifth Grade |
| | <input type="checkbox"/> Beyond Fifth Grade |

2. The tool assesses one or more of the following dimensions (Check all that apply):

READING

- Phonemic Awareness
- Listening Comprehension
- Reading Comprehension
- Reading Fluency
- Global Indicator of Reading Competence
- Other List Specific Skills or Subtests
 - Oral _____
 - Reading _____

MATHEMATICS

- Mathematics Computation
- Mathematic Application
- Mathematics Concepts
- Early Numeracy

SPELLING ACHIEVEMENT

List specific skills or subtests

WRITTEN EXPRESSION

List specific skills or subtests

OTHER

List specific skills or subtests

NOTES:

SECTION I: BASIC INFORMATION

The tool provides information on student performance in: English Spanish Other _____

Acquisition Information:

Where to Obtain: _____

Address: _____

Phone #: _____

Web Site: _____

Cost per student for Year 1: _____

Including:

\$ _____ Complete Kit (describe contents) _____

\$ _____ Manuals and Test Materials _____

\$ _____ Directions for Administration _____

\$ _____ Test Forms

\$ _____ Technical Manuals

\$ _____ Protocol per Student

Other (Describe below):

\$ _____

\$ _____

\$ _____

\$ _____

Cost per student for subsequent years: _____

Including:

\$ _____ Complete Kit (describe contents) _____

\$ _____ Manuals and Test Materials _____

\$ _____ Directions for Administration _____

\$ _____ Test Forms

\$ _____ Technical Manuals

\$ _____ Protocol per Student

Other (Describe below):

\$ _____

\$ _____

\$ _____

\$ _____

\$ _____

SECTION I: BASIC INFORMATION

Additional Information on the tools:

Describe basic pricing plan and/or structure of the tools. Also, provide information on what is included in the published tools, including information about special accommodations for students with disabilities.

SECTION II: DEVELOPMENT AND ADMINISTRATION

A. TIME, ADMINISTRATION, AND FREQUENCY

- Assessment format (Check all that apply): individual group
 computer-administered
- Administration time: _____ minutes
Additional scoring time: _____ minutes
- Discontinue Rules: yes no
 basals ceilings other
- Alternate forms available? no
 yes
(# of forms per grade, test level, or units: _____)

B. TRAINING

- Time required for training tester: less than 1 hour of training
 1-4 hours of training
 4-8 hours of training
 Information not available
- Minimum qualifications of the examiner: professional
 paraprofessional
 information not available
- Training manuals and materials available?: yes
 no
- Training manuals/materials field-tested: yes
 no _____
- Training manuals/materials included in cost of tools:
 yes
 no _____
- Sources for ongoing technical support available?: yes _____
 no

C. SCORING

- Types of scores available (Check all that apply): raw score standard score
 percentile score grade equivalents
 IRT-based score normal curve equivalents
 stanines
 developmental benchmarks: _____

- subscale/subtest scores composite scores
 error analysis
 Other (specify): _____

SECTION II: DEVELOPMENT AND ADMINISTRATION

Basis for calculating standard & percentile scores: age norms grade norms
 stanines normal curve equivalents

Scoring Structure (specify how raw scores are calculated and what comprises cluster/composite score): _____

Describe the tool's approach to progress monitoring, behavior samples, test format, and/or scoring practices, including avoidance of cultural or linguistic bias.

SECTION III: TECHNICAL INFORMATION

Note: Please fill out *SEPARATE* Section III: Technical Information for EACH content area.

What approach to progress monitoring is used?

- General Outcome Measurement (Complete GOM 1-7.)
With GOM, alternate forms of the progress monitoring are of comparable difficulty, representing the same construct. With GOM, progress toward a year-end goal is monitored.
- Mastery Measurement (Complete MM 1-6.)
With MM, the objectives are targeted for mastery changes. That is, criterion-referenced assessment on an objective continues with alternate forms of a test (each test has one type of item on it) until mastery is achieved. Then, a new objective (the next one in the sequence) is targeted for monitoring, etc.
- General Outcome Measurement and Mastery Measurement (Complete BOTH GOM 1-GOM7 and MM 1-MM6.) Please provide TWO separate sets of evidence – one set which addresses the standards for GOM and another set which addresses the standards for MM.

If the test was based on research conducted with other tools, describe the development rules that increase the likelihood that the evidence applies to this instrument.

GOM 1. Provide evidence that alternate forms are of equal and controlled difficulty (attach documentation).

What is the number of alternate forms of equal and controlled difficulty?

What is the basis for claiming technical adequacy:

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

GOM 2. Is adequate growth (slope of improvement or average weekly increase in score by grade level) or goal setting specified?

- Yes
- No

What is the basis for specifying adequate growth or goal setting?

SECTION III: TECHNICAL INFORMATION

Norm-referenced Criterion-referenced Other (Please describe):

What is the basis for claiming technical adequacy?

- Direct evidence: Referred studies are based specifically on use of this tool
 Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

2a. If norm-referenced, describe the normative profile:

National representation? Yes No

Local representation? Yes No

Date: _____ Number of States: _____

Size: _____ Regions: _____

Gender (Percent): ___ Male ___ Female ___ Unknown

SES (Percent, check all reported)

___ Low ___ Parents did not graduate high school
___ Middle ___ Parents graduated high school
___ High ___ Parents had 1-3 years of college
 ___ Parents had 4 or more years of college

Other SES Indicators: _____

Race/Ethnicity (Percent):

___ White, Non-Hispanic ___ American Indian/Alaska Native ___ Unknown
___ Black, Non-Hispanic ___ Asian/Pacific Islander
___ Hispanic ___ Other

Disability classification (Please describe): _____

First language (Please describe): _____

2b. If criterion-referenced, describe procedure for specifying criterion for adequate growth or goal setting (attach documentation):

SECTION III: TECHNICAL INFORMATION

2c. Please describe any other procedures for specifying adequate growth or goal setting:

GOM 3. Are benchmarks for adequate end-of-year performance or goal setting specified?

Yes No

What is the basis for specifying these benchmarks?

Norm-referenced Criterion-referenced Other (Please describe):

What is the basis for claiming technical adequacy?

- Direct evidence: Referred studies are based specifically on use of this tool
 Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

3a. If norm-referenced, describe the normative profile:

National representation? Yes No

Local representation? Yes No

Date: _____

Number of States: _____

Size: _____

Regions: _____

Gender (Percent): _____ Male _____ Female _____ Unknown

SES (Percent, check all reported)

____ Low
____ Middle
____ High

____ Parents did not graduate high school
____ Parents graduated high school
____ Parents had 1-3 years of college
____ Parents had 4 or more years of college

Other SES Indicators: _____

Race/Ethnicity (Percent)

____ White, Non-Hispanic
____ Black, Non-Hispanic

____ American Indian/Alaska Native
____ Asian/Pacific Islander

____ Unknown

SECTION III: TECHNICAL INFORMATION

____ Hispanic

____ Other

Disability classification (Please describe): _____

First language (Please describe): _____

3b. If criterion-referenced, describe procedure for specifying benchmarks for end-of-year performance levels or goal setting (attach documentation):

3c. Please describe any other procedures for specifying adequate growth or goal setting:

GOM 4. Describe evidence that teachers' use of the tool results in improved teacher planning or student achievement (attach journal articles).

What is the basis for claiming technical adequacy?

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

GOM 5. Describe evidence that the monitoring system produces data that are (a) sensitive to children's development of academic competence in this area and/or (b) sensitive to the effects of effective interventions (attach journal articles).

What is the basis for claiming technical adequacy?

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

SECTION III: TECHNICAL INFORMATION

SECTION III: TECHNICAL INFORMATION

GOM 6. Report reliability of slope information (e.g., Chronbach's alpha, test-retest, and/or inter-rater reliability estimates).

What is the basis for claiming technical adequacy?

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

SKILL AREA/SUBTEST: _____

RELIABILITY

Type of Reliability	Age or Grade	n (range)	Coefficient		SEM	Information (including normative data)/Subjects
			range	median		

Manual cites other published reliability studies: yes no

*Attach manual.

*Attach published studies.

SECTION III: TECHNICAL INFORMATION

GOM 7. Report validity information (e.g., content, concurrent, predictive, and/or construct*):**

What is the basis for claiming technical adequacy?

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

Complete one technical adequacy sheet for each subtest of the measure.

SKILL AREA/SUBTEST: _____

VALIDITY

Type of Validity	Age or Grade	Test or Criterion	n (range)	Coefficient		Information (including normative data)/Subjects
				range	median	

Other forms of validity: _____

Manual cites other published validity studies: yes no

*Attach manual.

*Attach published studies.

SECTION III: TECHNICAL INFORMATION

*** Validity information may also include: evidence based on response processes, evidence based on internal structure, evidence based on relations to other variables, and/or evidence based on consequences of testing.

SECTION III: TECHNICAL INFORMATION

MM 1. Type of evidence for skill sequence (instructional hierarchy) on which MM system is based:

- Logical (describe logic below)
- Expert judgment (describe procedure for deriving these judgments)
- Tied to curriculum: _____ (describe evidence that this curriculum/program is research validated; attach journal articles)

Description: _____

MM 2. Describe evidence that teachers' use of the tool results in improved teacher planning or student achievement (attach journal articles).

What is the basis for claiming technical adequacy:

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

MM 3. Describe evidence that the monitoring system produces data that are (a) sensitive to children's development of academic competence in this area and/or (b) sensitive to the effects of effective interventions (attach journal articles).

What is the basis for claiming technical adequacy:

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

SECTION III: TECHNICAL INFORMATION

MM 4. Report reliability coefficients for the tests incorporated in the system:

What is the basis for claiming technical adequacy:

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

SKILL AREA/SUBTEST: _____

RELIABILITY

Type of Reliability	Age or Grade	n (range)	Coefficient		SEM	Information (including normative data)/Subjects
			range	median		

Manual cites other published reliability studies: yes no

*Attach manual.

*Attach published studies.

How many items comprise a single test? ____-____.

SECTION III: TECHNICAL INFORMATION

MM 5. What is the correlation between number of skills mastered over the course of an academic year with an important end-of-year outcome? Report these validity coefficients:

What is the basis for claiming technical adequacy:

- Direct evidence: Referred studies are based specifically on use of this tool
- Indirect evidence: This tool was based on test construction principles from tools used in referred studies.

Complete one technical adequacy sheet for each subtest of the measure.

SKILL AREA/SUBTEST: _____

VALIDITY

Type of Validity	Age or Grade	Test or Criterion	n (range)	Coefficient		Information (including normative data)/Subjects
				range	median	

Other forms of validity: _____

Manual cites other published validity studies: yes no

*Attach manual.

*Attach published studies.

KEY ISSUES

MM 6. What is the basis for defending the pass/fail (mastered/nonmastered) decisions in the system:

Describe the sensitivity/specificity of these pass/fail decisions:

How are false negatives and false positives assessed for the benchmarks? (Criterion and grade/age)

	Negative	Positive
False		
True		

EVIDENCE OF SENSITIVITY

Odds ratios and conditional probabilities if given: _____

RELIABILITY OF DECISIONS

Calculations:

Specificity: $TN / (TN + FP) =$

Sensitivity: $TP / (TP + FN) =$

Hit rate: $(TP + TN) / N =$