



Finding Students At-Risk for Learning Problems: Creating a School-Wide Academic Screening Plan

Schools can screen all students with brief academic measures to identify those students who are experiencing skill deficits in content areas. Providing intervention when a student is just beginning to display academic delays is more likely to be effective and is typically less costly than attempting to intervene when a student's problems have spiraled into full-blown crisis. The purpose of school-wide screening, therefore, is to allow buildings to proactively flag struggling students at an early point and match them to appropriate interventions.

Schools should remember that whole-group screening results are often not sufficient to map out completely what a specific student's skill deficits might be—nor are they designed to do so. Rather, screenings help schools to single out quickly and with the minimum required investment of resources those students who need more intervention assistance. Some students picked up in a screening will require additional, detailed follow-up “instructional assessment” (Hosp, 2008) in order to better understand their learning needs and select appropriate interventions.

There are three general steps to implementing a school-wide screening program (Stewart & Silbergliit, 2008).

1. First, the school must decide on the range of measures or sources of data that will be used to screen their student population.
2. Next, the school must line up the required resources to conduct the screening. This step includes scheduling time for screening measures to be administered and finding personnel to administer, score, and interpret the results of those measures.
3. Finally, the school must build a process for communicating the screening results to classroom teachers and other interventionists and for using the screening data to identify students who need supplemental (Tier 2 or 3) interventions.

A series of brief, timed academic assessments known as Curriculum-Based Measurement (CBM) have been developed that can assess student performance in basic academic skills. CBM assessments share a number of qualities that make them very useful as RTI academic screening tools (Hosp, Hosp, & Howell, 2007). CBM measures are efficient to administer, align with the curriculum; have ‘technical adequacy’ as measurements; use standard procedures to prepare materials, administer, and score; and provide objective, observable, ‘low inference’ information about student performance. CBM measures are also criterion-referenced, allowing schools to set specific decision rules to interpret student data and make appropriate instructional decisions.

Other Resources



The National Center on Response to Intervention rates the 'technical adequacy' of commercially available academic screening and progress-monitoring tools. Review their findings at:

- <http://www.rti4success.org/chart/progressMonitoring/progressmonitoringtoolschart.htm>

Harn (2000) offers general advice on how to conduct a schoolwide screening in literacy skills at the elementary level. Those guidelines can be found at:

- https://dibels.uoregon.edu/logistics/data_collection.pdf



Directions: Select those CBM measures below to be used in your school-wide screening. Choose also the grades and screening points during the school year when a particular CMB measure will be administered routinely at a selected grade level. ('F' = Fall, 'W' = Winter, 'S' = Spring).

RTI General Outcome Measures/Skill-Based Measures: Literacy Skills

Initial Sound Fluency (Phonemic Awareness)

⌚: 3 minutes Administration: 1:1:

GRADE	K			1			2			3			4			5		
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is shown a collection of 4 pictures, each depicting an object that begins with a different letter sound. The examiner gives the student a letter sound and asks the student to select from the collection the picture of the object that begins with that letter sound. The process is repeated with new sets of pictures for the duration of the monitoring period.

Online Sources for This Measure

- DIBELS (<https://dibels.org/next/index.php>) [Free]. Administration Range: Pre-K through middle of Kindergarten.

Phoneme Segmentation (Phonemic Awareness)

⌚: 1 minute Administration: 1:1

GRADE	K			1			2			3			4			5		
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is read a list of words containing 2 or more phonemes. For each word, the student is asked to recite all of the phonemes that make up the word.

Online Sources for This Measure

- DIBELS (<https://dibels.org/next/index.php>) [Free]. Administration Range: Middle of Kindergarten through end of Grade 1.
- Easy CBM (<http://www.easycbm.com/>). [Free]. Administration Range: Kindergarten and Grade 1.
- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Middle of Kindergarten through middle of Grade 1.



☐ Letter Naming Fluency (Alphabetic)

🕒: 1 minute Administration: 1:1

GRADE	K			1			2			3			4			5		
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is presented with a list of randomly arranged letters. The student names as many letters as possible.

Online Sources for This Measure

- DIBELS (<https://dibels.org/next/index.php>) [Free]. Administration Range: Beginning of Kindergarten through beginning of Grade 1.
- Intervention Central (<http://www.rti2.org/rti2/letterNamings>). [Free]. Site provides an online application ('Letter Naming Fluency Probe Generator') that creates randomly generated sets of uppercase, lowercase, and mixed-case letters in English and Spanish for Letter Naming Fluency assessments.
- Easy CBM (<http://www.easycbm.com/>). [Free]. Administration Range: Kindergarten and Grade 1.
- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Beginning of Kindergarten through beginning of Grade 1.

☐ Letter Sound Fluency (Alphabetic)

🕒: 1 minute Administration: 1:1

GRADE	K			1			2			3			4			5		
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is presented with a list of randomly arranged letters. The student gives the sounds of as many letters as possible.

Online Sources for This Measure

- Easy CBM (<http://www.easycbm.com/>). [Free]. Administration Range: Kindergarten and Grade 1.
- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Middle of Kindergarten through beginning of Grade 1.
- EdCheckup (<http://www.edcheckup.com/>). [Pay]. Administration Range: Information unavailable.
- Intervention Central (<http://www.rti2.org/rti2/letterNamings>). [Free]. Site provides an online application ('Letter Naming Fluency Probe Generator') that creates randomly generated sets of uppercase, lowercase, and mixed-case letters in English and Spanish that could be used for Letter Sound Fluency assessments.



☐ Nonsense Word Fluency (Alphabets)

⌚: 1 minute Administration: 1:1

GRADE	K			1			2			3			4			5		
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is shown a list of short nonsense words. For each word, the student is to read the word or give the sounds that make up the word.

Online Sources for This Measure

- DIBELS (<https://dibels.org/next/index.php>) [Free]. Administration Range: Middle of Kindergarten through middle of Grade 2.
- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Middle of Kindergarten through end of Grade 1.

☐ Word Identification Fluency (Alphabets)

⌚: 1 minute Administration: 1:1

GRADE	K			1			2			3			4			5		
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is presented with a list of words randomly selected from a larger word list (e.g., Dolch Wordlist). The student reads as many words as possible.

Online Sources for This Measure

- Easy CBM (<http://www.easycbm.com/>). [Free]. Administration Range: Kindergarten through Grade 3.
- Intervention Central (<http://www.interventioncentral.org>). [Free]. Site provides an online application ('CBM List Builder') that creates randomly generated Word Identification Probes based on the Dolch Wordlist.
- EdCheckup (<http://www.edcheckup.com/>). [Pay]. Administration Range: Information unavailable.



□ Oral Reading Fluency (Fluency With Text)

⌚: 1 minute Administration: 1:1

GRADE	K			1			2			3			4			5				
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S		
6	7			8			9			10			11			12				
F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student reads aloud from a passage and is scored for fluency and accuracy. Passages are controlled for level of reading difficulty.

Online Sources for This Measure

- DIBELS (<https://dibels.org/next/index.php>) [Free]. Administration Range: Middle of Grade 1 through Grade 6. Site has both English and Spanish reading probes.
- Easy CBM (<http://www.easycbm.com/>).[Free]. Administration Range: Grade 1 through Grade 8.
- Intervention Central (<http://www.rti2.org/rti2/oralReadings>).[Free]. Application that creates an oral reading fluency probe based on text supplied by the user.
- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Grade 1 through Grade 8. Site has both English and Spanish reading probes.
- iSteep (<http://www.isteep.com/>).[Pay] Administration Range: Grade K through Grade 6 (progress-monitoring). Site has both English and Spanish reading probes.
- EdCheckup (<http://www.edcheckup.com/>). [Pay]. Administration Range: Information unavailable.

□ CBM Maze (Reading Comprehension)

⌚: 1-3 minutes Administration: Group

GRADE	K			1			2			3			4			5				
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S		
6	7			8			9			10			11			12				
F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is given a passage in which every 7th word has been removed. The student reads the passage silently. Each time the student comes to a removed word, the student chooses from among 3 replacement words: the correct word and two distractors. The student circles the replacement word that he or she believes best restores the meaning of the text.

Online Sources for This Measure

- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Grade 1 through Grade 8.
- EdCheckup (<http://www.edcheckup.com/>). [Pay]. Administration Range: Information unavailable.
- iSteep (<http://www.isteep.com/>). [Pay]. Administration Range Grade 1 through Grade 6.
- Intervention Central (<http://www.rti2.org/rti2/mazes>).[Free]. Application that creates a maze passage probe based on text typed in by the user.
- Yearly ProgressPro (<http://www.ctb.com/yearlyprogresspro>). [Pay]. Computer-delivered Maze passages.



RTI General Outcome Measures/Skill-Based Measures: Writing Skills

CBM Written

Expression

⌚: 4 minutes Administration:

Group

GRADE	K			1			2			3			4			5				
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S		
6	7			8			9			10			11			12				
F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is given a story starter as a writing prompt. The student spends one minute thinking about the story starter topic, then has 3 minutes to write the story. The CBM writing probe offers three scoring options: Total Number of Words Written, Correctly Spelled Words, and Correct Writing Sequences (a scoring approach that takes into account the mechanics and conventions of writing such as punctuation, spelling, capitalization, and correct semantic and syntactic usage).

Online Sources for This Measure

- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Grade 1 through Grade 8
- EdCheckup (<http://www.edcheckup.com/>). [Pay]. Administration Range: Information unavailable.
- Intervention Central (<http://www.rti2.org/rti2/writtenExpressions>). [Free]. Application that creates a writing probe using pre-entered story starters or text typed in by the user.

RTI General Outcome Measures/Skill-Based Measures: Mathematics Skills

Quantity Discrimination (Early Math Fluency)

⌚: 1 minute Administration: 1:1:

GRADE	K			1			2			3			4			5				
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S		
F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is given a sheet with number pairs. For each number pair, the student must name the larger of the two numbers.

Online Sources for This Measure

- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Grade K through Grade 1.
- Intervention Central (<http://www.lefthandlogic.com/php/numberfly/numberfly.php>). [Free]. Application that dynamically creates quantity discrimination probes based on user-entered preferences.



☐ Oral Counting (Early Math Fluency)

⌚: 1 minute Administration: 1:1:

GRADE	K			1			2			3			4			5		
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student counts aloud as many words in sequence as possible, starting from zero or one. NOTE: The student does not require materials for this assessment. The examiner can make a sheet with numbers listed sequentially from 0-100 to record those numbers that the student can recite in sequence.

Online Sources for This Measure

- AimsWeb (<http://www.aimsweb.com/>). [Pay]. Administration Range: Grade K through Grade 1.

☐ CBM Math Computation

⌚: 2 minutes Administration: Group

GRADE	K			1			2			3			4			5				
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S		
6	7			8			9			10			11			12				
F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is given a worksheet with math computation problems. The worksheet may be a single-skill probe (all problems of a single type) or a mixed-skill probe (several different problem types). The completed worksheet is scored for the number of Correct Digits (digits in student answers that are of the correct value and appear in the correct place-value location).

Online Sources for This Measure

- AimsWeb (<http://www.aimsweb.com/>). [Pay].
- EdCheckup (<http://www.edcheckup.com/>). [Pay].
- iSteep (<http://www.isteep.com/>). [Pay]: Administration Range Grade K through Grade 6.
- Intervention Central (<http://www.interventioncentral.org/htmldocs/tools/mathprobe/allmult.php>). [Free]. Application that single- and mixed skill math computation probes based on user-selected criteria.



□ CBM Math Concepts & Applications

⌚: 8-10 minutes Administration:
Group

GRADE	K			1			2			3			4			5				
	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S		
6	7			8			9			10			11			12				
F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S	F	W	S

Description: The student is given a worksheet (or completes an online assessment) that contains a mix of applied math problems that are tied to larger concepts (e.g., to the Math Focal Points from the National Council of Teachers of Mathematics).

Online Sources for This Measure

- AimsWeb (<http://www.aimsweb.com/>). [Pay].
- Easy CBM (<http://www.easycbm.com/>). [Free for individual teachers; subscription pricing available to school districts]. Administration Range Grade K through Grade 8. Student probes can be completed online.
- iSteep (<http://www.isteep.com/>). [Pay]. Administration Range Grade 1 through Grade 8.
- Yearly ProgressPro (<http://www.ctb.com/yearlyprogresspro>). [Pay]. Administration Range Grade 1 through Grade 8. Computer-delivered assessments.

References

Harn, B. (2000). *Approaches and considerations of collecting schoolwide early literacy and reading performance data*. Retrieved on July 26, 2010, from https://dibels.uoregon.edu/logistics/data_collection.pdf

Hosp, J. L. (2008). Best practices in aligning academic assessment with instruction. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp.363-376). Bethesda, MD: National Association of School Psychologists.

Hosp, M. K., Hosp, J. L., & Howell, K. W. (2007). *The ABCs of CBM*. New York: Guilford Press.

Stewart, L. H. & Silberglit, B. (2008). Best practices in developing academic local norms. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp. 225-242). Bethesda, MD: National Association of School Psychologists.