

## Assessment in Grades 9-12

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## Assessment in the MTSS Process

- Universal Screening
- Progress Monitoring
- Diagnostic Assessment

## *Universal Screening*

### Universal Screening

- Used in Tier One to identify students at risk
- Standardized Assessment tool
- Administered to all students in school
- Benchmark or percentile
- 3 or more times per year
- Examples:
  - *AIMSWEB*
  - *STEEP*

## Characteristics of Universal Screening

- Quick
- Easy to administer
- Immediate access to data
- Measures broad skills expected for end of year mastery
- Identifies students at risk
- Can be implemented multiple times

## Universal Screening Tools for Middle and High School

- STEEP – System to Enhance Educational Performance
  - *Middle school oral reading fluency and maze (comprehension)*
  - *High school oral reading fluency and maze*
  - *Secondary math concepts and application fundamentals*

## Examples of Universal Screening Tools

- AIMSweb
- STEEP
- STAR Reading
- STAR Math

Tools chart from National Center on Response to Intervention [www.rti4success.org](http://www.rti4success.org).

National Center on Response to Intervention (RTI) - Screening Reading Tools Chart - Windows Internet Explorer

http://www.rti4success.org/index.php?option=com\_content&task=view&id=1091&Itemid=139#

File Edit View Favorites Tools Help

Norton Phishing Protection on Identity Safe Log-ins

Google national ins Search Bookmarks Find Check AutoFill

National Center on Response to Intervention (RTI) - ...

TOOLS	AREA	Classification Accuracy	Generalizability	Reliability	Validity	Disaggregated Reliability, Validity, and Classification Data for Diverse Populations	Efficiency	
							Administration Format	Administration & Scoring Time
AIMSweb	Reading Curriculum Based Measurement (R-CBM)	●	Moderate-High	●	●	—	Individual	2 Minutes
Dynamic Indicators of Basic Early Literacy Skills (DIBELS)	Letter Naming Fluency	○	Moderate-Low	●	○	—	Individual	2 Minutes
	Nonsense Word Fluency	●	Moderate-Low	●	○	○	Individual	2 Minutes
	Oral Reading Fluency	●	Moderate-High	●	○	○	Individual	2 Minutes
Scholastic	Phoneme Segmentation Fluency	○	Moderate-Low	○	○	○	Individual	2 Minutes
	Phonics Inventory - Screener Version	●	Moderate-High	●	○	—	Individual Group	10 Minutes
STAR	Early Literacy	●	Broad	●	○	●	Individual Group	10 Minutes
	Reading	●	Moderate-High	●	●	●	Individual Group	10 Minutes
STEEP	Oral Reading Fluency	●	Moderate-High	●	○	—	Individual	1 Minute

### Universal Screening Tools for Middle and High School

- Reading Comprehension – Maze
- Reading Fluency – grade appropriate practices
- Math – problem solving, numbers and operations

### Universal Screening Indicators for High School

- Use data to identify students at risk:
  - Track attendance, grades, promotion status, and engagement indicators
  - Track freshmen who miss *10 of first 30 days* of school
  - Track *freshmen grades* – failing core academics
  - Identify students who are *over-age* for their class

## Universal Screening Tools for High School

- Eighth grade teachers identify upcoming students who are at risk
- Data from Eighth grade standardized assessment
- Develop screening tools for all incoming freshmen in reading and math

## Universal Screening Tools for Behavior

- Office Discipline Referrals
- Teacher checklists
  - Systematic Screening for Behavior Disorders ([www.pbis.org](http://www.pbis.org))
  - Student Risk Screening Scale ([www.sch-psych.net/archive/000808.php](http://www.sch-psych.net/archive/000808.php))
- Data derived from observations
  - Times out of seat
- Individual student risk factors
  - Stressors in family

If large numbers of students have deficits in a domain, address the problem in Tier 1 before or while addressing it in Tier 2.

### How do we use Universal Screening Data?

- Identify students in need of interventions
  - Must establish cutpoint:
    - Benchmark
    - Percentile

## How do we use Universal Screening (*outcome*) Data?

- **Office Discipline Referrals**
  - 0-1 ODRs – Tier 1
  - 2-5 ODRs – Tiers 2 and/or 3
  - 6 or more ODRs – Tier 4
- **Teacher checklists**
  - Withdrawn behaviors
- **Risk factors**
  - Students with high risk may receive interventions in all tiers

## How do we use Universal Screening (*process*) Data?

- **Identify most common deficit areas**
  - Develop standard protocol interventions
- **Identify weaknesses in the curriculum**
  - Reinforce teaching of standards
  - Provide supplemental materials
- **Identify weaknesses in instruction**
  - Provide support for teaching of standards
  - Provide supplemental resources
  - Monitor progress of class on continual basis

## How do we use Universal Screening (*process*) Data?

- **Identify patterns of behavioral problems**
  - *Settings where more behavior problems occur*
  - *Time of day*
  - *Classrooms*
  
- **Identify most common types of referrals**
  - *Need for change in policy/procedures*
  - *Need for change in rules/expectations*
  - *Need for teacher training in classroom management*
  - *Need for teacher training in appropriate referrals*

## Managing Data

- System should be easy to use, quick to enter data, and easy to disaggregate data
- Incorporate into Student Information System
- School Wide Information System (SWIS)
  - Tracks data on office discipline referrals only
  - Minimal cost (\$250 per school per year)
  - [www.swis.org](http://www.swis.org)

## Assessment for Interventions Tiers

### Diagnostic

- Individually administered to students identified at risk
- Pinpoints specific deficits
- Assists in choosing interventions

## Examples of Diagnostic Assessments

- DAR
- Star Reading
- Star Math
- Key Math
- ([www.fcrr.org](http://www.fcrr.org))

## Progress Monitoring

- *Scientifically-based practice*
- Using assessment to carefully monitor *small changes* in student progress in order to make *instructional adjustments*
- Individual student *or* entire class
- In RTI for academics, *curriculum based measurement* is most often used for progress monitoring
- **Frequency** – *every 1-2 weeks*

Traditional Assessments	Progress Monitoring
<ul style="list-style-type: none"> <li>• Typically lengthy</li> <li>• Administered infrequently</li> <li>• Do not receive immediate feedback</li> <li>• Feedback may not inform instructional planning</li> </ul>	<ul style="list-style-type: none"> <li>• Easy and quick method for gathering student performance data</li> <li>• Administered frequently</li> <li>• Receive immediate feedback to adjust instruction</li> <li>• Students compared to peers and local norms</li> </ul>

## Curriculum Based Measurement (CBM)

- ▶ Curriculum based measurement is one form of scientifically based method for Progress Monitoring.
- ▶ Curriculum based measurements:
  - Describe academic competence
  - Track academic development
  - Improve student achievement
- ▶ Three Purposes of curriculum based measurement
  - Screening
  - Progress monitoring
  - Instructional diagnosis

## Examples of CBM Probes

- Reading Fluency – General outcome measure
  - Given to an individual
  - Scored: Number of words correctly read in the passage-middle score recorded.
  - Research norms can be used as benchmarks

## Research Norms: Example

Norms for 'typical' growth are derived from a research sample, published, and applied by schools to their own student populations

From Making Connections Intervention, Educators Publishing Service, 2007		
Grade	Correctly Read Words Per Min	
6	94-123	
7	110-139	
8	127-150	

## Examples of CBM Probes

- Reading Comprehension – General outcome measure
  - Retell fluency
  - Comprehension questions
  - Maze assessment –
    - Most valid and reliable method

## Maze Assessment Example

### A Tea Party of Sorts

- The Tea Act resulted in a drop/shop/make in the cost of tea. British declare/leaders/hurried thought Americans would be overjoyed to save/clip/give money and thus forget about their battle/yelled/sunset against unjust taxation. The Americans responded hours/quite/knows the opposite though. After three weeks of/it/so deliberating the fate of three ships full/came/hall of tea, the Americans took action. With/Which/Whom many dressed as Mohawk Indians, a procession/immediately/accomplished moved from the Old South Meeting House of/to/in the harbor. They accomplished their mission of/us/so ridding the boats of 90,000 pounds in/up/of tea into the water. It was an/in/he unusual tea party for sure.

## Norms for MAZE (AIMSWEB)

Grade	Percentile	Fall (wrc)	Winter (wrc)	Spring (wrc)
8	90%	185	193	201
	75%	162	170	180
	50%	138	146	155
	25%	107	115	127
	10%	77	83	94

## CBM Probes

- **Mathematics** – Skills based measure
  - Can be given to an individual or group
  - Scored: Number of correct digits
    - Single Skill Probes (same type problems)
    - Multiple Skill Probes (mix of problems with different math operations)

## Math Scoring Example:

### Traditional

$$\begin{array}{r} 75 \\ \times 4 \\ \hline 300 \end{array} \quad \text{score} = 1$$

$$\begin{array}{r} 82 \\ \times .91 \\ \hline 7380 \\ 74.62 \end{array} \quad \text{score} = 1$$

### CBM

$$\begin{array}{r} 75 \\ \times 4 \\ \hline 300 \end{array} \quad \text{score} = 3$$

$$\begin{array}{r} 82 \\ \times .91 \\ \hline 7380 \\ 74.62 \end{array} \quad \text{score} = 11$$

## Probes for High School Students

- Reading Comprehension – Maze
- Reading Fluency – oral reading fluency passage
- Math – Skills-based measures
  - [www.interventioncentral.org](http://www.interventioncentral.org) Curriculum Based Measurement Warehouse
    - Tool from Superkids.com allows teachers to develop probes on fractions, percentages, rounding, averages, exponents, factorials

## Examples of Progress Monitoring Tools

- DIBELS
- AIMSweb
- STAR Math
- STAR Reading
- Provided by publisher \*\*

The screenshot shows the Florida Center for Reading Research (FCRR) website. The browser window title is "Assessment Programs Reading Assessment at the Middle & High School Level - Windows Internet Explorer". The address bar shows "http://www.fcrr.org/assessmentMiddleHighSchool.htm". The website features a search bar, a navigation menu with links for "home", "fsu home", and "Search", and a main heading "Assessment Programs". A sidebar on the left lists various sections: "About", "Mission", "Center Research", "Presentations and Publications", "Curriculum and Instruction", "Assessment Programs" (with sub-links for Florida's Reading First Assessment Plan, Middle and High School, Pre-Kindergarten and Kindergarten Emergent Literacy Skills Assessment, and Assessment Presentations), and "Progress Monitoring and Reporting Network". The main content area is titled "Reading Assessment at the Middle & High School Level" and includes a paragraph about the challenges of reading for middle and high school students. It also lists "Florida Oral Reading Fluency" (with links for 6-8 FORF Risk Levels Chart, 9-12 FORF Risk Levels Chart, and Approved Accommodations) and "Maze Assessment" (with links for 6-8 Maze Risk Levels Chart and 9-12 Maze Risk Levels Chart). A "Resources" section at the bottom provides links for "Overview of Progress Monitoring for Older Students (PDF)", "Assessments for Secondary Students (PDF | PowerPoint)", and "Assessing Growth in Critical Skills (PDF | PowerPoint)".

## Tier 2 Progress monitoring

- Student's current level of performance is measured (**baseline** – 3 data points).
- *Goals* are identified for learning that will take place over time.
- Student's academic performance is measured on a regular basis (*bi-weekly or weekly*).
- Progress toward meeting the student's goal is measured by comparing *expected* and *actual* rates of learning.
- Based on these measurements, *teaching is adjusted* as needed.
- Non-response is operationalized by system.

National Center on Student Progress Monitoring

## Progress Monitoring for Behavior

- **Follow up on Universal Screening Tool**
- **Office Discipline Referrals**
- **Teacher checklists**
- **Data derived from observations**
  - *Times out of seat*
- **Data derived from intervention**
  - *Daily behavior report cards – percentage of goal met*
- **Number of absences/ tardies**
- **GPA**
- **Number of timeouts/suspensions**

- **Frequent** – *review every 2-3 weeks*
  
- **Observe response:**
  - *Significant decrease/achieve goal –  
fade intervention*
  
  - *No change or increase in problem behavior –  
change intervention*

### What do we do with CBM results?

- **Set individual student goals**
  - Required for every student who will receive interventions
  - Based on multiple variables

## Goal Setting

### Consider:

- Baseline score
- Number of weeks of intervention
- Average rate of growth for skill (weekly growth rate or norms)
- Intensity of Instruction

### Types of Goals:

- Reach benchmark
- Incremental

## Weekly growth rates for Maze

Grade	Ambitious growth rates per week
6	0.4
7	0.4
8	0.4

Hosp, Hosp. & Howell, 2007

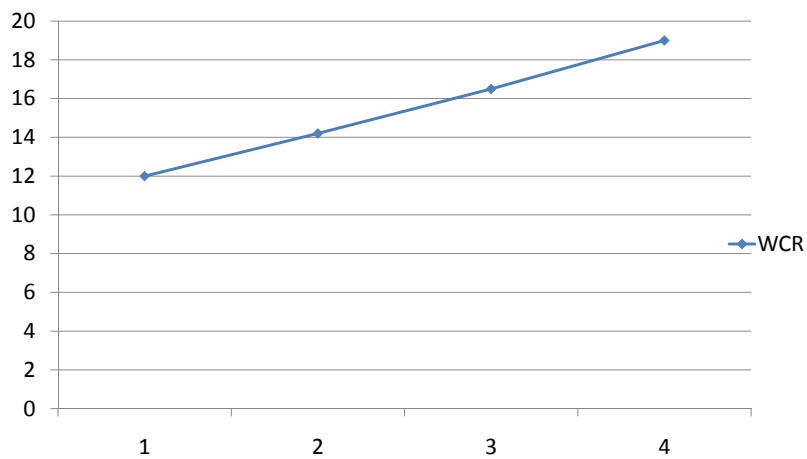
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	50%	138	146	155
	25%	107	115	127
	10%	77	83	94

## Goal Setting:

- Joshua: 9th grade (September)
- What is the outcome goal?
  - The spring norm at the 25<sup>th</sup> %ile for 8<sup>th</sup> grade MAZE is 17 words correctly restored in a three minute read
- What is the baseline performance?
  - 12 wcr
- How many weeks of instruction will be planned for?
  - 18 weeks
- How much growth is needed?
  - 5 wcr
- How much growth does this require per week?
  - 5 divided by 18 weeks = 0.27 words per week
- What is the average growth rate for 8<sup>th</sup> grade wcr?
  - 0.4 wcr
- What is an appropriate goal for Joshua?
  - 19 wcr

Bench-mark	Baseline	Weeks of instruction	Amount of growth needed	Growth required per week	Average growth rate	Goal
17 wcr	12 wcr	18 weeks	5 wcr	0.27 wcr	0.4 wcr	19 wcr



## Tier Three Assessment

- **Academic**
  - Diagnostic
  - Intensive
  
- **Behavior**
  - Individualized based on student need
  - Individual assessment may include *Functional Behavioral Assessment*
  - **Functional Assessment Checklist for Teachers and Staff** (FACTS – [www.pbis.org](http://www.pbis.org))

## Functional Behavioral Assessment

- Every school system must have training and trained personnel
- Extensive look at purpose of behavior
- Direct assessment
  - Observations
- Indirect assessment
  - Checklists
  - Functional Assessment Checklist for Teachers and Staff (FACTS – [www.pbis.org](http://www.pbis.org))

## Use FBA Data to Define Behavior

- Establish *operational definition of the problem behavior*
- Identify *antecedents*
- Identify *consequence* that maintains behavior
- Identify the *function* of the behavior
- Develop intervention to address all these areas.

## Example

- Jason is frequently out of his seat.
- Define out of seat:
  - Losing contact with seat and standing when expected to sit
- Define compliance:
  - Remaining in the seat unless directed otherwise

## The Bottom Line

- Assessment is useless if the resulting data is not used to change instruction
- When assessment data guides instruction, informed decisions drive decisions