

Assessment in Grades K-8

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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:
 - *DIBELS*
 - *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

Examples of Universal Screening Tools

- DIBELS
- AIMSweb
- STAR Reading and Early Literacy
- STAR Math
- Scholastic Phonics Screener

Tools chart from National Center on Response to Intervention 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 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
	Phoneme Segmentation Fluency	○	Moderate Low	●	○	●	Individual	2 Minutes
Scholastic	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 Behavior

- Office Discipline Referrals
- Teacher checklists
 - Systematic Screening for Behavior Disorders (www.pbis.org)
 - Student Risk Screening Scale (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.

- Assessment is useless if the data is not used to change instruction and supports.

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

Assessment for Interventions Tiers

Diagnostic

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

Examples of Diagnostic Assessments

- Scholastic Phonics Screener
- DAR
- Indiana Reading Diagnostic Assessments
- Star Early Literacy
- Star Reading
- Star Math
- Key Math
- (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

- Typically lengthy
- Administered infrequently
- Do not receive immediate feedback
- Feedback may not inform instructional planning

Progress Monitoring

- Easy and quick method for gathering student performance data
- Administered frequently
- Receive immediate feedback to adjust instruction
- Students compared to peers and local norms

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

Norms for ORF (AIMSWEB)

Grade	Percentile	Fall (wrc)	Winter (wrc)	Spring (wrc)
1	90%	49	78	106
	75%	22	46	80
	50%	8	23	52
	25%	2	23	28
	10%	0	6	15

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.

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

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

82

x .91

82

7380

74.62

score = 1

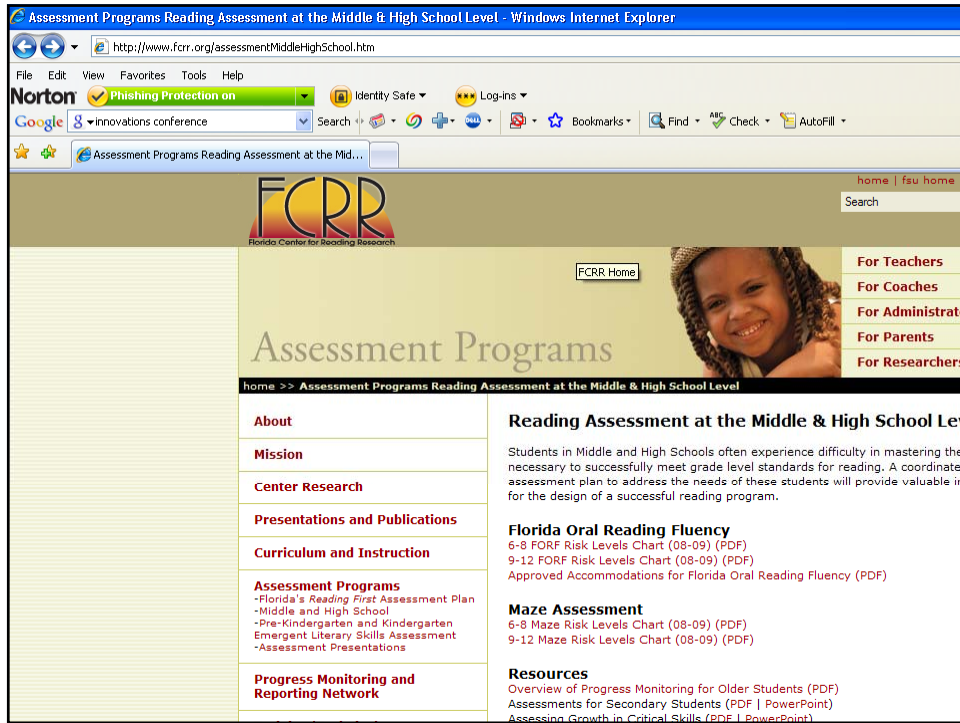
CBM

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

82

x .91**82****7380****74.62**

score = 11



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

Examples of Progress Monitoring Tools

- DIBELS
- AIMSweb
- STAR Math
- STAR Reading
- STAR Early Literacy
- Provided by publisher **

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 ORF

Grade	Realistic growth rates per week	Ambitious growth rates per week
1	2	3
2	1.5	2
3	1	1.5
4	.85	1.1
5	0.5	0.8
6	0.3	0.65

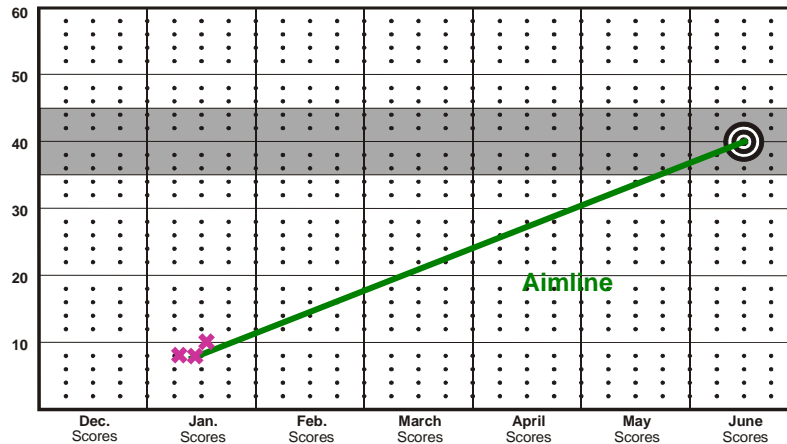
Hosp, Hosp. & Howell, 2007

Goal Setting: Madison

- Madison: 1st grade (January)
- What is the outcome goal?
 - The spring benchmark for 1st grade ORF is a minimum of 40 correct words per minute
- What is the baseline performance?
 - 8 wpm, 1st Grade DIBELS ORF
- How many weeks of instruction will be provided?
 - 16 weeks
- How much growth is needed?
 - 32 wpm
- How much growth does this require per week?
 - 32 divided by 16 weeks = 2 words per week
- What is the average growth rate for 1st grade ORF?
 - Realistic 2, Ambitious 3
- What is an appropriate goal for Madison?
 - 40 wpm

Bench- mark	Baseline	Intensity of Instruction	Weeks of instruction	Amount of growth needed	Growth required per week	Average growth rate	Goal
40 wpm	8 wpm	3 x per week	16 weeks	32 wpm	2 wpm	R - 2 A - 3	40 wpm
40 wpm			10 weeks				
40 wpm							

Madison's ORF Goal – 40 wpm



The aimline connects where you are to where you want to get to, and shows the course to follow to get there.

How would Madison's goal change with different variables?

- Madison: 1st grade (January)
- What is the outcome goal?
 - The spring benchmark for 1st grade ORF is a minimum of 40 correct words per minute
- What is the baseline performance?
 - 8 wpm, 1st Grade DIBELS ORF
- How many weeks of instruction will be provided?
 - **10 weeks**
- How much growth is needed?
 - 32 wpm
- How much growth does this require per week?
 - 32 divided by 10 weeks = 3.2 words per week
- What is the average growth rate for 1st grade ORF?
 - Realistic 2, Ambitious 3
- What is an appropriate goal for Madison?

Determining Ambitiousness of Goal

- Scenario 1
 - 3 days per week
 - 20 minutes per session
- Scenario 2
 - 5 days per week
 - 40 minutes per session

Use realistic growth rate

2 wpm x 10 weeks = 20wpm gain

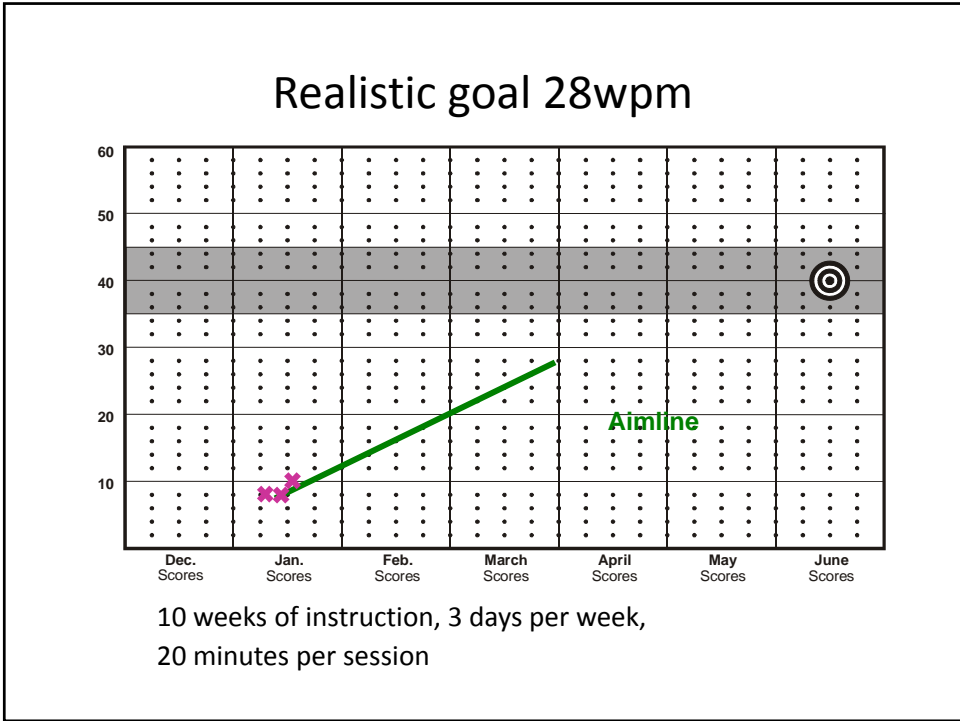
20 wpm gain + 8 wpm baseline = 28wpm
interim goal

Use ambitious growth rate

3 wpm x 10 weeks = 30wpm gain

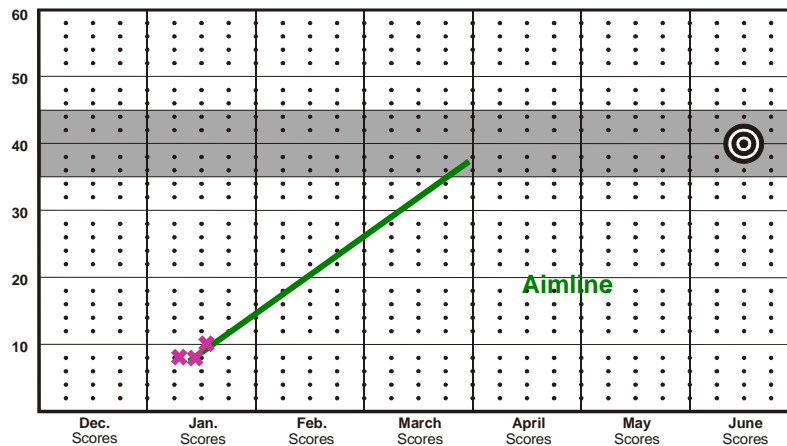
30 wpm gain + 8 wpm baseline = 38wpm goal

Bench- mark	Baseline	Intensity of Instruction	Weeks of instruction	Amount of growth needed	Growth required per week	Average growth rate	Goal
40 wpm	8 wpm	3 x per week	16 weeks	32 wpm	2 wpm	R - 2 A - 3	40 wpm
40 wpm	8 wpm	3 x per week	10 weeks	32 wpm	3.2 wpm	R - 2 A - 3	28 wpm Incre- mental



Bench- mark	Baseline	Intensity of Instruction	Weeks of instruction	Amount of growth needed	Growth required per week	Average growth rate	Goal
40 wpm	8 wpm	3 x per week	16 weeks	32 wpm	2 wpm	R - 2 A - 3	40 wpm
40 wpm	8 wpm	3 x per week	10 weeks	32 wpm	3.2 wpm	R - 2 A - 3	28 wpm Incre- mental
40 wpm	8 wpm	5 x per week	10 weeks	32 wpm	3.2 wpm	R - 2 A - 3	40 wpm

Ambitious goal 38wpm



10 weeks of instruction, 5 days per week,
30 minutes per session

Goal Ambitiousness

- Goal ambitiousness positively impacts student achievement
- When teachers and students set high goals and increased them based on response, student progress was more rapid than with students who has lower performance goals that remained fixed.

Fuchs, Fuchs, & Deno (1985)

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)

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)

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