Data-Based Instructional Decision Making

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U.S. Office of Special Education Programs

Student Progress Monitoring
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Overview of Session

1. Data-Based Decisions
   - Benchmarking vs. progress monitoring
   - Robust indicators vs. curriculum sampling
   - Standard decision rules
   - Instructional planning
2. Common Web-Based Applications in Reading and Mathematics
   - AIMSweb
   - Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
   - Edcheckup
   - Yearly Progress Pro
3. Generally Effective Reading Instruction
   - Instructional procedures
   - Application: Case study
4. Generally Effective Mathematics Instruction
   - Instructional procedures

Acknowledgment

- Portions of this presentation were taken from the 2005 Summer Institute--*Advanced Applications of CBM in Reading: Instructional Decisionmaking Strategies* by Pamela M. Stecker and Erica S. Lembke

Part 1:
Data-Based Decisions

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Data-Based Decisions: Benchmarking

- Benchmarking may involve classwide/schoolwide screening
  - Used to identify students at risk who may need additional/different instruction
  - Samples skills critical toward attaining benchmark goal or measure is predictive of attaining benchmark goal
  - Usually conducted several times per year

Data-Based Decision Making: Progress Monitoring

- Progress Monitoring involves individual or classwide/schoolwide assessment:
  - Used to demonstrate student/class rate of improvement in the curriculum and to identify students whose growth is inadequate
  - Aids teachers in determining when instructional modifications may be necessary
  - Samples skills in the year-long curriculum OR encompasses global behavior that predicts proficiency in the curriculum
  - Administration schedule may vary by student/class, depending on perceived need--from twice weekly to once monthly

Why Is Progress Monitoring Important?

Research has demonstrated that when teachers use progress monitoring for instructional decision-making purposes:

- students achieve more
- teacher decision making improves
- students tend to be more aware of their performance

(e.g., see Fuchs, Deno, Mirkin, 1984; L. S. Fuchs, Fuchs, Hamlett, & Ferguson, 1992; L. S. Fuchs, Fuchs, Hamlett, & Stecker, 1991; Stecker, Fuchs, & Fuchs, 2005)

Benefits of Conducting Progress Monitoring

- Student performance data on important, grade-level skills/content can be gathered quickly and easily
- Student progress can be analyzed in order to modify instructional programs when needed and/or adjust student goals upward
- Individual student data can be compared to data of other students in the classroom, in the child's school, or in the school district

Curriculum-Based Measurement: A Specific Form of Progress Monitoring

- CBM is a scientifically validated form of student progress monitoring that incorporates standard methods for test development, administration, scoring, and data utilization
- CBM enjoys nearly 30 years of research to support its effectiveness
- Several computerized or Web-based versions of progress monitoring are based on principles of CBM

Decision Making

- Depending on frequency of data collection, student progress may be evaluated as early as following several weeks of instruction but may occur following one or two months of instruction
- Standard decision rules help teachers determine when instructional changes may be necessary
- Individual progress monitoring programs may incorporate their own specific decision-making framework

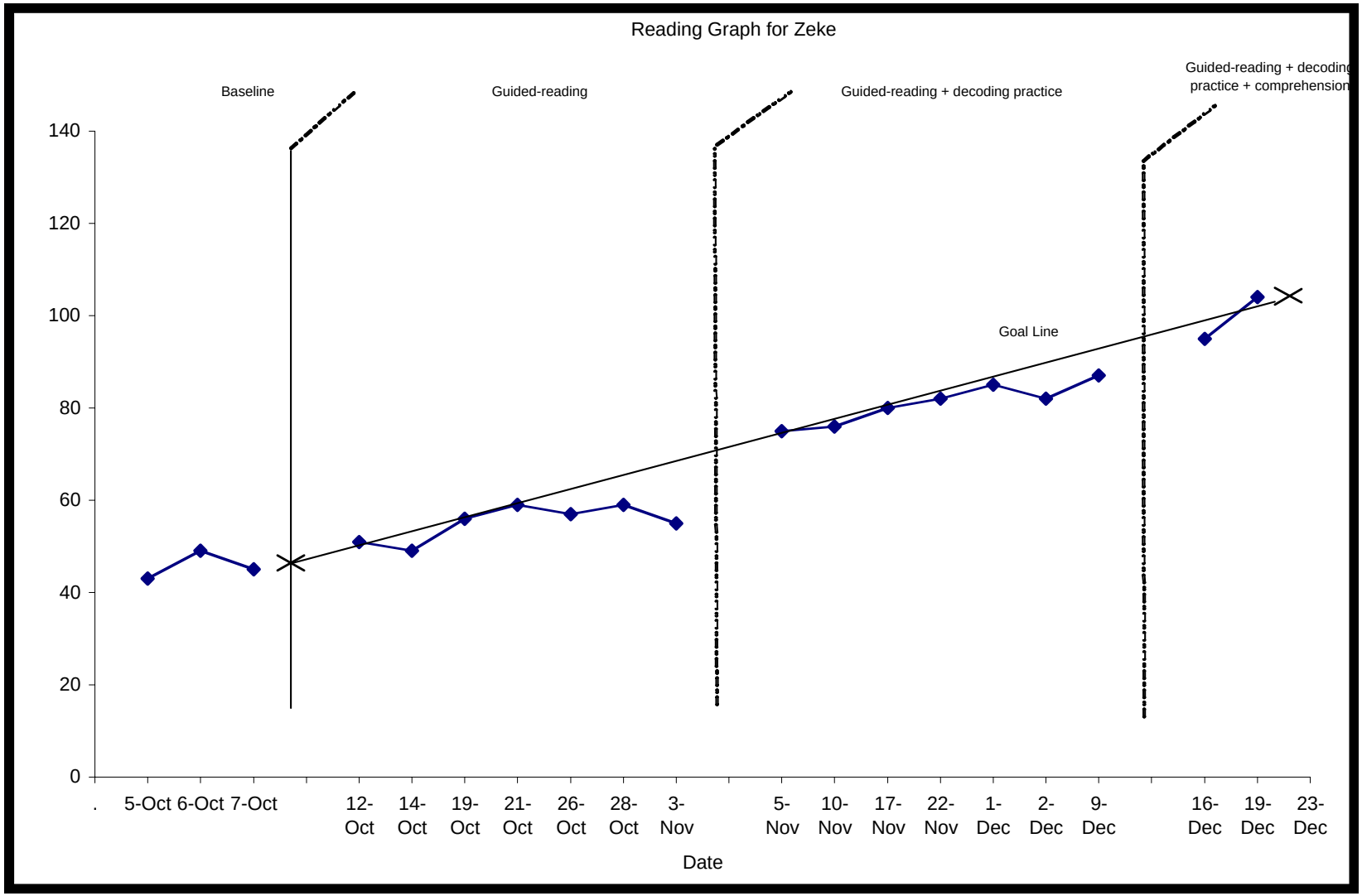
Standard Decision Rules

- Draw trend line of student progress (e.g., Tukey method) for 7-8 data points and compare to the student's goal line
  - Trend is not as steep as the goal line, make a teaching change
  - Trend is steeper than the goal line, raise the goal
- May use "four-point rule" if at least three weeks of instruction have occurred and the last four scores collected all fall above or below the goal line
  - Four most recent scores all fall below the goal line, make a teaching change
  - Four most recent scores all fall above the toal line, raise the goal

Building Effective Programs

- Teachers use standard decision rules and/or program-embedded decision framework to determine when instruction needs to be altered (or goals raised)
- Some progress monitoring systems provide recommendations or analysis of skills, which may aid teachers in designing modifications
- In general, teachers should use research-validated practices to design the nature of their instructional programs

Sample Curriculum-Based Measurement Graph



Documentation for Instructional Planning

Date	Instructional Strategies (Procedures and Skills)	Size of Group (#Teachers to #Students)	Allocated Instructional Time and Frequency	Instructional Resources (Level, (Curriculum, Materials)	Reinforcement Strategies (optional)
Oct.12	Guided reading instruction				
Nov. 5	Guided reading plus decoding practice				
Dec. 16	Guided reading and decoding practice plus comprehension strategies				

Planning Interventions

- Most important aspect of progress monitoring: USE THE DATA!!!
- The following instructional elements may be altered to enhance student performance:
  - Instructional strategies
  - Size of instructional group
  - Time allocated for instruction
  - Materials used
  - Reinforcement

What Is the Status of Progress Monitoring in Your School?

- What efforts have you already made toward implementation of progress monitoring?
- What are your goals for implementation for next year?
- What are your goals for implementation 3 years from now?
- Considerations:
  - Time
  - Money
  - Technology
  - Training

ACTION PLAN

Part 2: Common Web-Based Applications in Reading and Mathematics

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Two Main Approaches for Sampling Student Performance

- Robust indicators--global measures that indicate overall proficiency in the academic area (e.g., oral reading fluency, maze fluency, basic math facts)
- Curriculum sampling--mixed set of items that represent systematic sampling of skills from the annual curriculum (e.g., mixed set of problems in mathematics)

(see Fuchs, 2004 for a description)

AIMSweb

- http://www.aimsweb.com

AIMSweb CBM Measures

- Reading-CBM (Oral Reading Fluency) English and Spanish
- Maze-CBM (Reading Comprehension)
- Early Literacy Measures
- MIDE (Spanish Early Literacy)
- Early Numeracy-CBM
- Mathematics-CBM
- Spelling-CBM
- Written Expression-CBM

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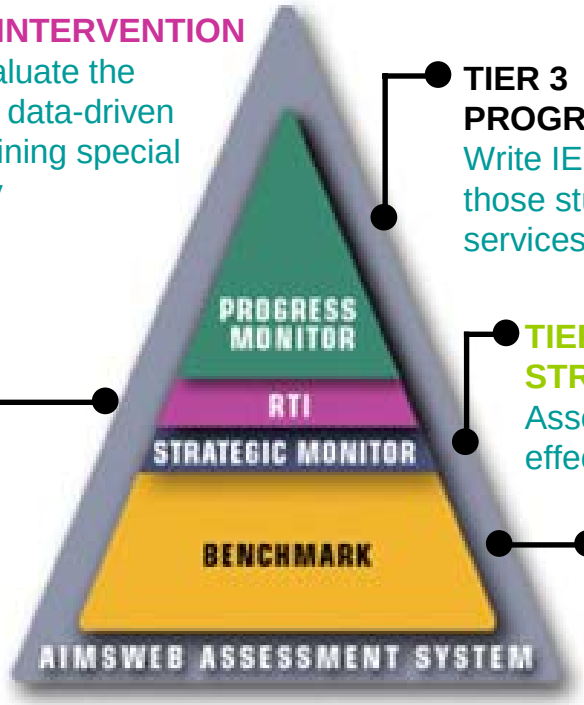
DIBELS™ Compatible

- AIMSweb fully supports charting and reporting of all DIBELS brand assessments
- Customers may use DIBELS assessments, AIMSweb assessments, or any combination of both

AIMSWEB® PRO

3-Tier Progress Monitoring and Response-to-Intervention System

RESPONSE TO INTERVENTION
Organize and evaluate the process of RTI; a data-driven model for determining special services eligibility



TIER 3
PROGRESS MONITOR
Write IEP goals and monitor progress frequently for those students in need of intensive instructional services

TIER 2
STRATEGIC MONITOR
Assess at-risk students monthly and monitor the effectiveness of instructional changes

TIER 1
BENCHMARK
Assess all students three times per year for early identification and accountability

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Tier 1 Benchmark Features

- **Organizes** Curriculum-Based Measurement (CBM) and DIBELS™ Data for Benchmark Assessment Fall, Winter, and Spring
- **Prepares** Reports for Teachers, Principals, and Administrators on Individual Students, Classes, Grades, Schools, and School Districts
- **Identifies** At Risk Students Early
- **Objectively Determines** Rates of Progress for Individual Students, Schools, and NCLB Risk Groups
- **Allows Evaluation** at Multiple Levels of Comparison Groups
- **Prints** Professional Reports for Parent Conferences and Other Meetings

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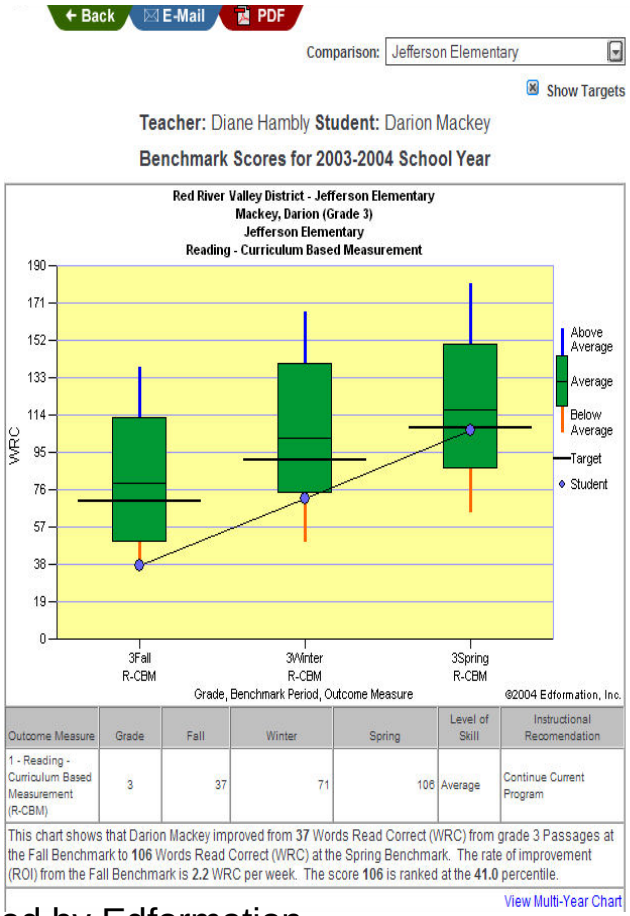
Tier 1 Benchmark
Individual Student Report: Spring



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Documents what worked for at-risk students

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Tier 1 Benchmark
Class Report: Rank by Score and Percentile

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○ Below ○ Above ◉ Above & Below Target
☐ Show Grade ☑ Show Target
View Chart

Class Distribution by Scores and Percentile

Red River Valley District - Jefferson Elementary
Grade3 - (Diane Hambly) Winter 2003-2004
Reading - Curriculum Based Measurement

Name	Corrects	Errors	Accuracy	Performance Summary	Potential Instructional Action
Schumacher, Nels	197	3	98.5%	Well Above Average	Consider Need for Individualized Instruction
Hutton, Greg	180	0	100.0%	Well Above Average	Consider Need for Individualized Instruction
Fleeger, Sydney	179	1	99.4%	Well Above Average	Consider Need for Individualized Instruction
Gohman, Karina	176	1	99.4%	Well Above Average	Consider Need for Individualized Instruction
Darlow, Lindsay	176	0	100.0%	Well Above Average	Consider Need for Individualized Instruction
Well Above Average >= 165 (90th %ile)					
Scanlon, Zachary	161	3	98.2%	Above Average	Consider Need for Individualized Instruction
Ballis, Haley	151	3	98.1%	Above Average	Consider Need for Individualized Instruction
Clark, Tyler	140	4	97.2%	Above Average	Consider Need for Individualized Instruction
Above Average >= 140 (75th %ile)					
Connaker, Ryan	125	1	99.2%	Average	Continue Current Program
Dilts, Joey	122	0	100.0%	Average	Continue Current Program
Jensen, Kevin	113	1	99.1%	Average	Continue Current Program
Dunbar, Ellen	110	1	99.1%	Average	Continue Current Program
Mowry, Sandra	110	0	100.0%	Average	Continue Current Program
Williams, Jessica	99	4	96.1%	Average	Continue Current Program
Odegard, Keanna	97	2	98.0%	Average	Continue Current Program

- Rank orders students by performance
- Color-codes individual educational needs
- Provides instructional decisions to consider

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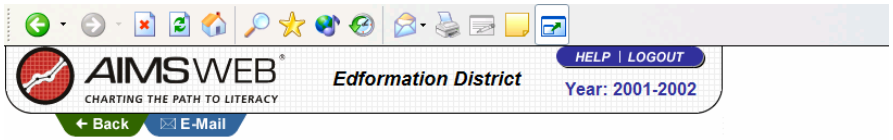
Tier 1 Benchmark Grade Report – All Skills Matrix



Grade Level Matrix of Scores

Hartford School District - Wilson Elementary

Grade 3 : 2001-2002 School Year

Student	Teacher	R-CBM Fall	SC	R-CBM Winter	SC	R-CBM Spring	SC	M-CBM Fall	SC	M-CBM Winter	SC	M-CBM Spring	SC	MathApp Fall	SC	MathApp Winter	SC	MathApp Spring	SC
Ainsworth, O.	I. Greehling	139.00	R	169.00	R	179.00	R	13.00	R	18.00	R	24.00	R						
Aladay, B.	M. Rogers	66.00	T	80.00	T	98.00	T	8.00	T	8.00	R	4.00	R						
Allendar, G.	I. Greehling	80.00	R	107.00	R	120.00	R	13.00	R	10.00	R	14.00	R						
Autzen, N.	A. Jones	71.00	R	67.00	R			10.00	R	8.00	R	13.00	R						
Barker, S.	A. Jones	78.00	R	99.00	R	117.00	R	10.00	R	13.00	R	22.00	R						
Barton, J.	I. Greehling	123.00	R	152.00	R	165.00	R	15.00	R	23.00	R	20.00	R						
Baylor, U.	M. Rogers	61.00	T	86.00	R	105.00	R	13.00	R	14.00	R	22.00	R						
Bergeson, V.	G. Johnson	50.00	T	62.00	T	66.00	T	8.00	R	4.00	R	11.00	R						
Best, P.	G. Johnson	39.00	T	57.00	S	67.00	S	6.00	T	5.00	T	6.00	T						
Birch, A.	G. Johnson	64.00	R	88.00	R	110.00	R	7.00	T	6.00	T	10.00	T						
Birkenholtz, U.	G. Johnson	46.00	S	68.00	S	55.00	S	2.00	R	2.00	S	6.00	S						
Blevins, C.	A. Jones	92.00	R	136.00	R	136.00	R	5.00	R	12.00	T	13.00	T						
Brental, U.	G. Johnson	49.00	T	91.00	T	95.00	T	10.00	T	6.00	R	12.00	R						
Brien, C.	M. Rogers	64.00	R	87.00	R	96.00	R	10.00	R	11.00	R	19.00	R						
Burkhart, R.	G. Johnson	93.00	R	121.00	R	145.00	R	9.00	R	12.00	R	12.00	R						
Buxton, I.	G. Johnson	43.00	T	50.00	T	75.00	T	3.00	T	6.00	T	7.00	T						
Carpenter, A.	A. Jones	53.00	R	71.00	T	87.00	T	13.00	R	12.00	R	16.00	R						
Cummings, L.	I. Greehling	93.00	R					10.00	R										
Darilek, P.	A. Jones	63.00	R	93.00	R	108.00	R	12.00	R	11.00	R	11.00	R						
Delong, B.	G. Johnson	145.00	R	149.00	R	174.00	R	12.00	R	16.00	R	20.00	R						
Denny, T.	A. Jones	12.00	S	13.00	S	21.00	S	2.00	R	4.00	S	6.00	S						
Dolberry, O.	I. Greehling	20.00	R	24.00	S			3.00	R	3.00	S								
Edick, J.	M. Rogers	60.00	R	88.00	R	119.00	R	15.00	R	19.00	R	28.00	R						
Fann, B.	M. Rogers	119.00	R	138.00	R			8.00	R	10.00	R								
Free, O.	M. Rogers	56.00	T	70.00	T	87.00	T	7.00	T	10.00	T	12.00	T						
Fullmer, C.	G. Johnson	25.00	T	16.00	T	27.00	T	3.00	T	3.00	T	4.00	T						

Identifies at-risk students in the school by name, teacher, assessment, and benchmark period

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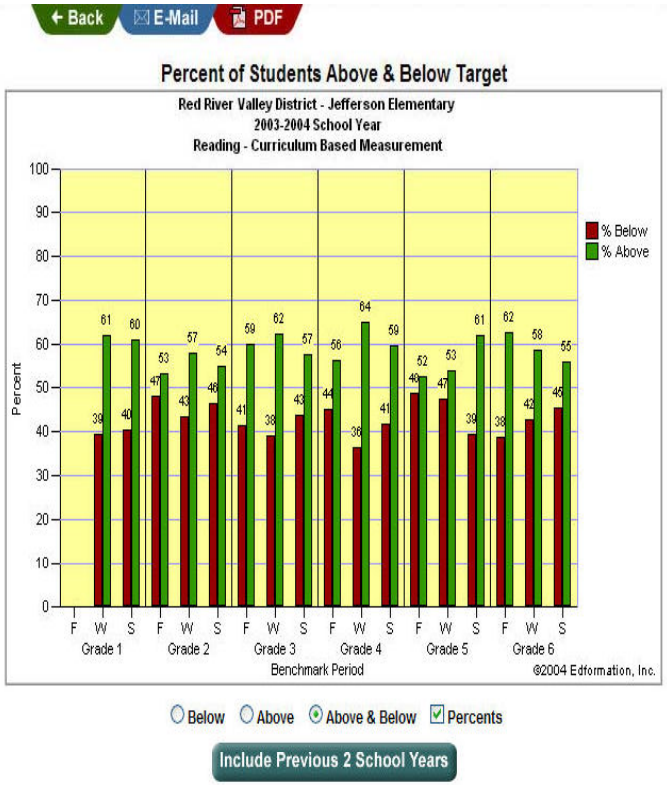
Tier 1 Benchmark
Building Report – Above and Below Target



Evaluates improvement of students relative to specified achievement targets

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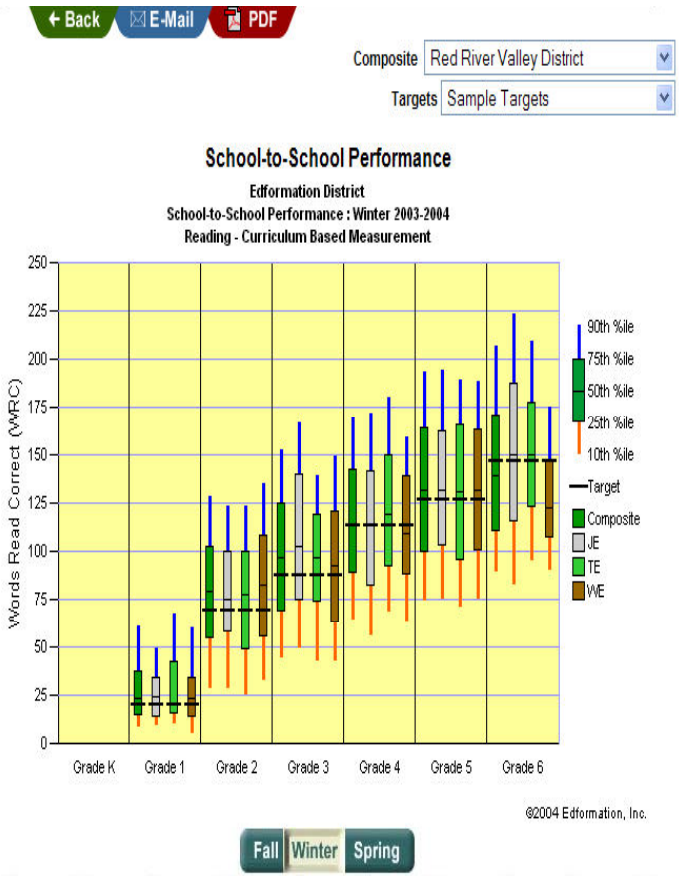
Tier 1 Benchmark
District Report – Compare Schools



Allows comparison of scores by school

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Tier 2 Strategic Monitor Features

- **Monthly assessments** to allow more frequent evaluation
- **Verifies achievement** levels
- **Identification** of all students requiring intensive progress monitoring is ensured

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Tier 2 Strategic Monitor Individual Student Report

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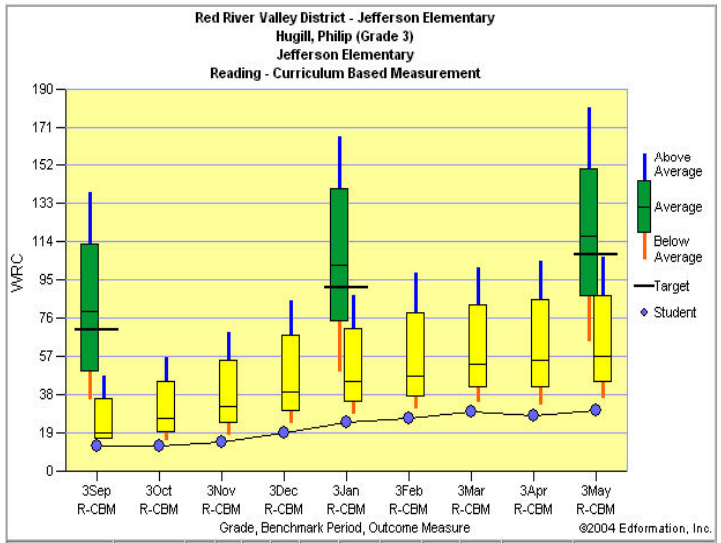
Comparison: Jefferson Elementary

☑ Show Targets

Teacher: Diane Hambly **Student:** Philip Hugill

Benchmark Scores for 2003-2004 School Year



Outcome Measure	Grade	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Level of Skill	Instructional Recomendation
1 - Reading - Curriculum Based Measurement (R-CBM)	3	12	12	14	19	24	26	29	27	30	Well Below Average	Begin Immediate Problem Solving

This chart shows that Philip Hugill improved from **12** Words Read Correct (WRC) from grade 3 Passages at the September Benchmark to **30** Words Read Correct (WRC) at the May Benchmark. The rate of improvement (ROI) from the September Benchmark is **0.6** WRC per week. The score **30** is ranked at the **0** percentile.

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Tier 3 Progress Monitor Features

- **Frequently assess** students in need of intensive instructional services
- **Document** the effects of intervention
- **Print** professional reports for periodic and annual reviews
- **Translate annual IEP goals** into expected rates of progress (Aim lines) automatically
- **Monitor progress** (Trend lines) towards goals

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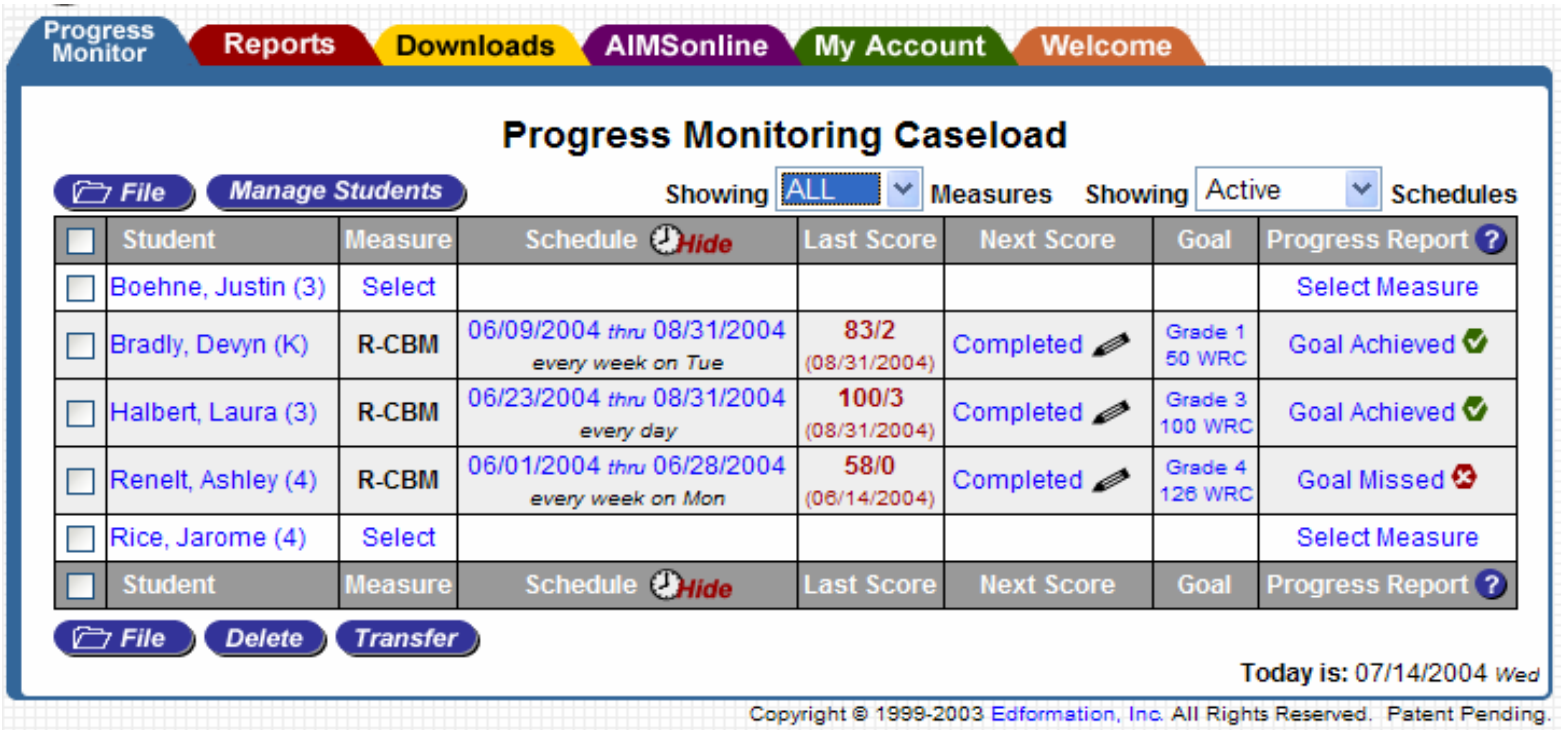
Tier 3 Progress Monitor Case Manager Interface



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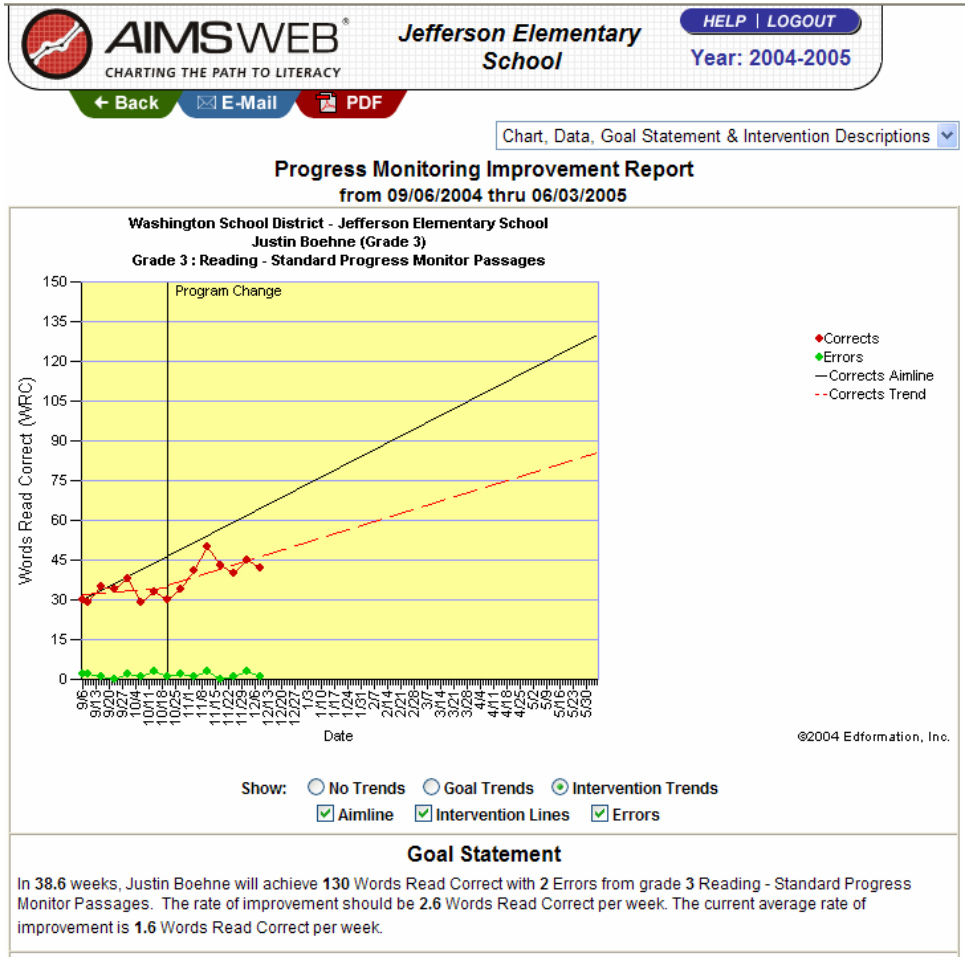
Tier 3 Progress Monitor Student Report 3



IEP revisions can be evaluated

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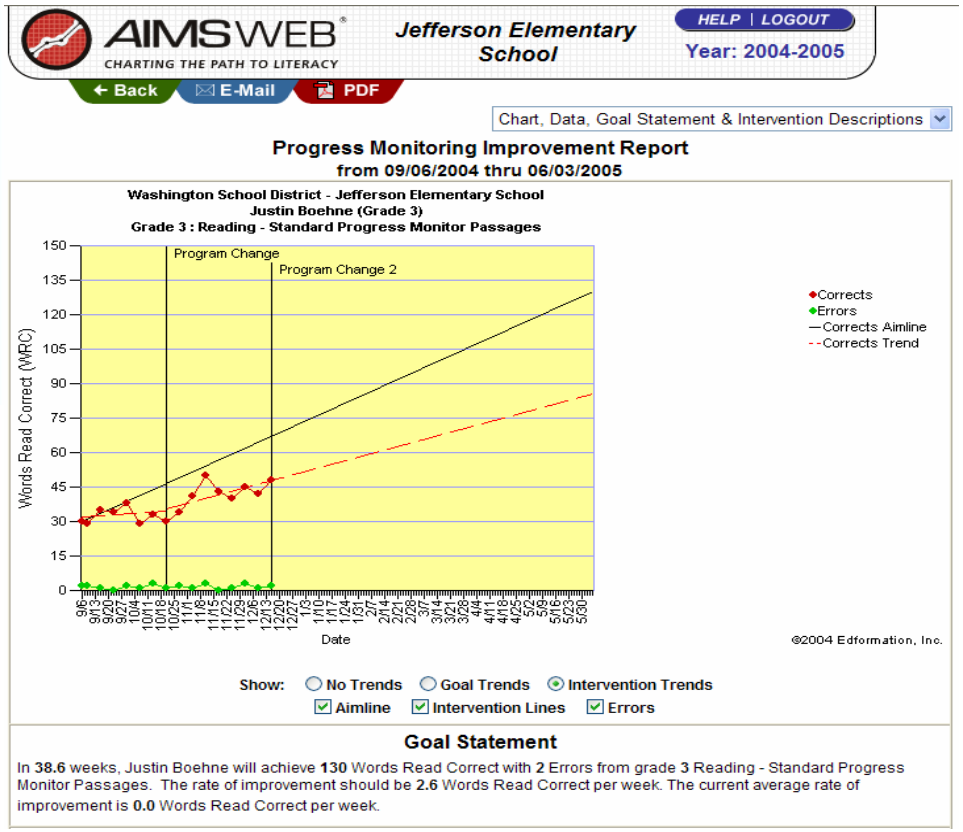
Tier 3 Progress Monitor Student Report 4



Revise instruction as necessary

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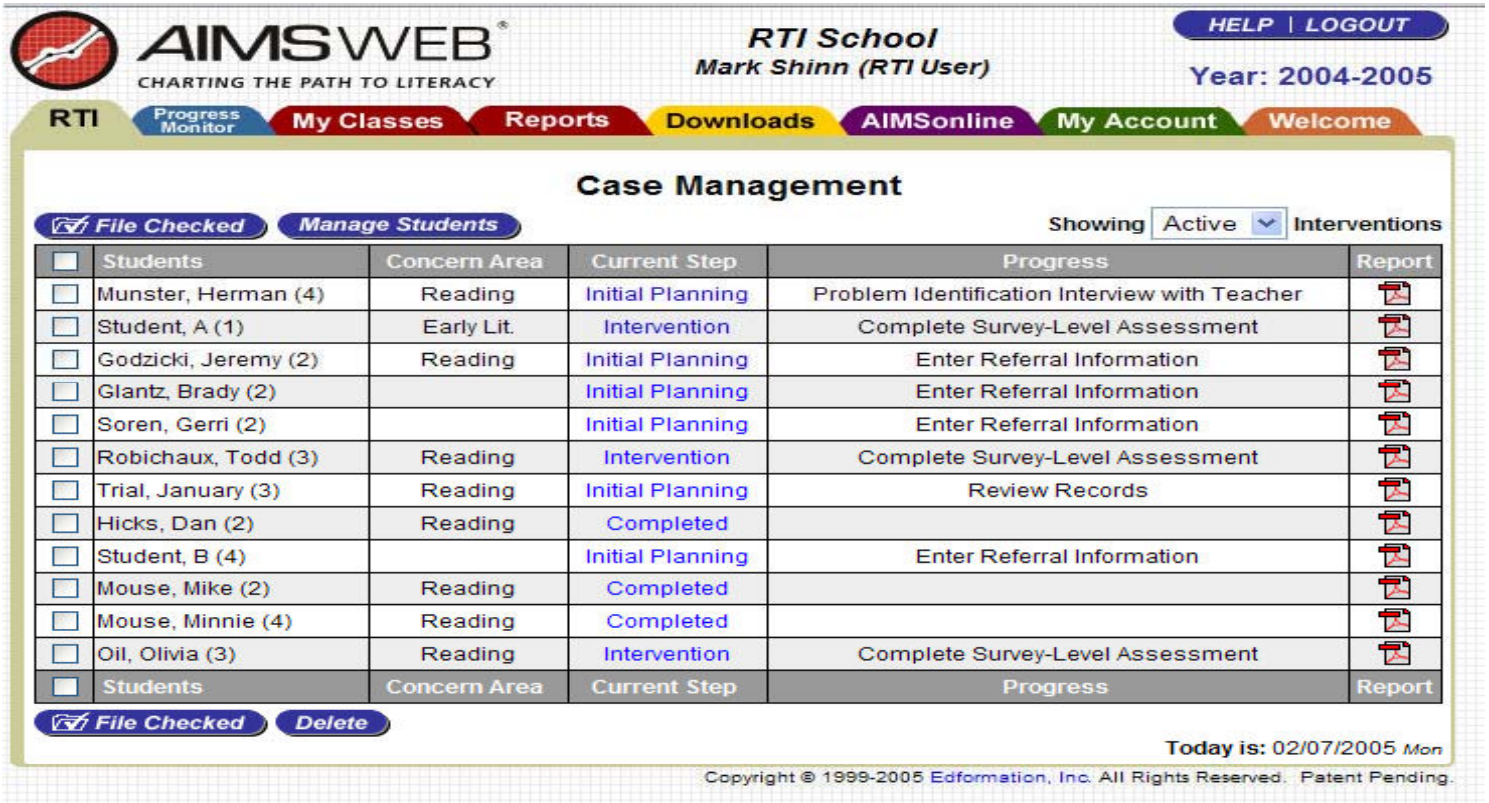
Response to Intervention (RTI): Standard Process Protocol

- **Assess** skills directly, frequently, and continuously using CBM assessments
- **Progress Monitor** with AIMSweb to chart expected rates of progress and quickly compare to actual rates of progress
- **Plan, Intervene, and Document.** The RTI Interface pulls data together to provide clear evidence of a response to intervention or lack of response

Response to Intervention (RTI): Case Manager Interface



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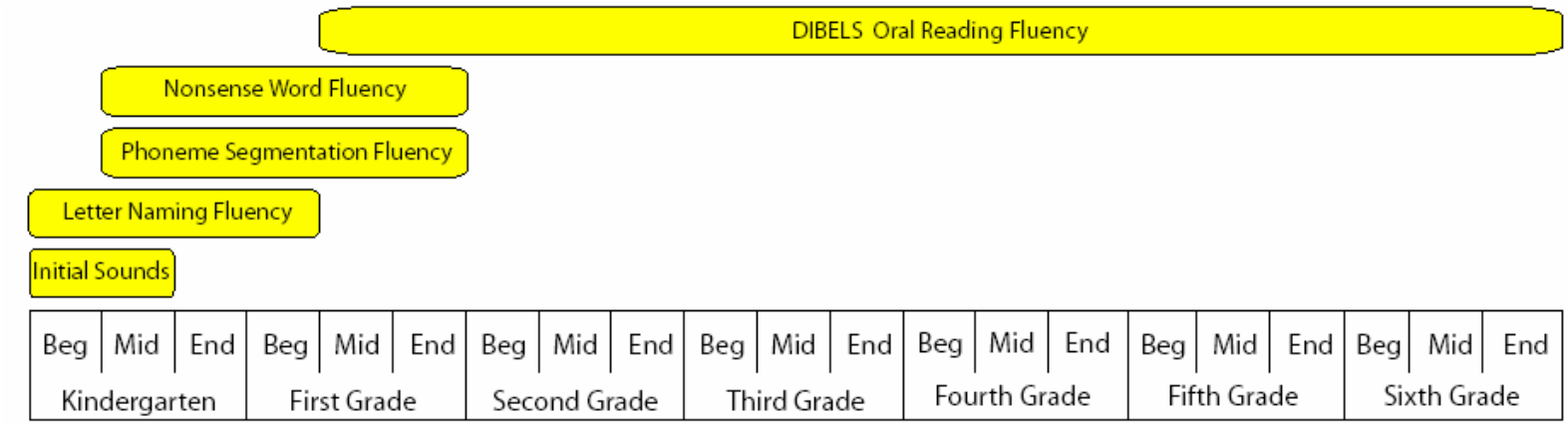
Dynamic Indicators of Basic Early Literacy Skills (DIBELS)

http://dibels.uoregon.edu

DIBELS Measures and Administration Schedule for Benchmarking



Materials Provided

- Materials can be printed for school-wide benchmarking (3 times per year) or for individual progress monitoring (weekly)
- For both benchmarking and progress monitoring, measures and directions are provided in easy-to-manage, folded booklets

Information Provided

- Provides comprehensive data management and reports for:
  - District-level
  - School-level
  - Grade-level
  - Class-level
  - Individual student level

Grade-Level Reports

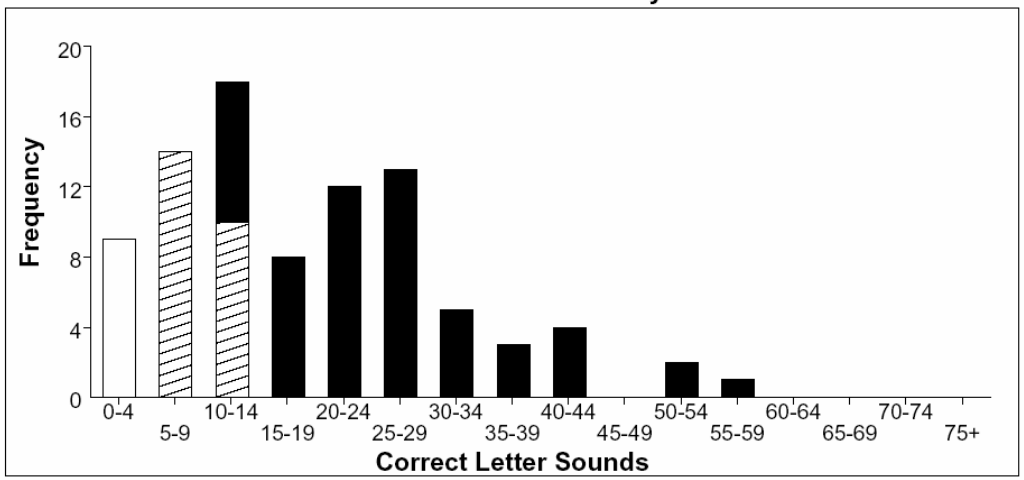
Report Components

- Benchmark Goals—long-term performance goals. Represent *minimal* levels of satisfactory progress for the *lowest* achieving students.
  - Established, Emerging, or Deficit--if the benchmark goal is to be completed by the time the measure is administered
  - Low Risk, Some Risk, or At-Risk--if the benchmark goal is to be completed at some point in the future

Dynamic Indicators of Basic Early Literacy Skills
Kindergarten School Report

District: Test District
School: Adams
Date: January, 2001-2002

Nonsense Word Fluency



Benchmark Goal: The benchmark goal is for all children to have established alphabetic principle skills of 50 or more on Nonsense Word Fluency by the middle of First Grade.

January Status: In the middle of Kindergarten, students should be beginning to learn some letter-sound correspondences.

63% (n=56) Low Risk
Children scoring 13 or more letter sounds per minute are likely to achieve the benchmark goal if provided with effective alphabetic principle instruction. For these students, progress toward benchmark goals should be checked at the end of Kindergarten to ensure adequate growth.

27% (n=24) Some Risk
Children scoring between 5 and 12 letter sounds per minute in the middle of Kindergarten are at some risk for difficulty achieving the benchmark goal. Additional instructional support in alphabetic principle may be needed to achieve the middle-of-First Grade benchmark goal. Progress toward benchmark goals should be monitored monthly.

10% (n=9) At Risk
Students scoring below 5 letter sounds per minute in the middle of Kindergarten are at risk for difficulty achieving the alphabetic principle goal. For students in this range, intensive intervention in alphabetic principle may be needed to achieve the benchmark goal. Progress toward benchmark goals should be monitored at least every 2 weeks.

Note: Split bars where the bottom part indicates "at risk" and the top part indicates "some risk" or where the bottom part indicates "some risk" and the top part indicates "low risk" are used when the cutoff scores for "at risk" or "some risk" occur in the middle of a score range. The number of students is indicated by the size of the part.

Class Reports

- Scores—raw scores
- Percentiles—percent of students that scored the same as or lower than the student
- Status—refers to grade-level report
- Instructional recommendations
  - Benchmark (Tier I)—goal has been met or student is on track to meet subsequent goals; **no additional intervention** is recommended at this time
  - Strategic (Tier II)—no clear prediction regarding subsequent goals and **additional intervention** is recommended
  - Intensive (Tier III)—odds are against student achieving subsequent goals without **substantial intervention**
- Reports can be printed for one testing period (e.g., winter) or across the school year (fall, winter, spring)

Dynamic Indicators of Basic Early Literacy Skills
Kindergarten Class List Report

District: Test District
School: Adams
Date: January, 2001-2002
Class: Adams K #2

Note: Scores provide an indication of performance only. If there is any concern about the accuracy of scores for an individual student, performance should be verified by retesting to validate need for support.

	Initial Sound Fluency			Letter Naming Fluency			Phoneme Segmentation Fluency			Nonsense Word Fluency			
Student	Score	Percentile	Status	Score	Percentile	Status	Score	Percentile	Status	Score	Percentile	Status	Instructional Recommendations
D, BRITTANY	12	11	Emerging	0	< 1	At risk	3	7	At Risk	4	11	At Risk	Intensive - Needs Substantial Intervention
V, JOHNATHON	13	12	Emerging	18	37	Some risk	27	35	Low Risk	16	45	Low Risk	Strategic - Additional Intervention
B, MATHEW	14	14	Emerging	18	37	Some risk	16	24	Some Risk	12	34	Some Risk	Strategic - Additional Intervention
V, SHANIA	14	14	Emerging	37	73	Low risk	42	63	Low Risk	22	60	Low Risk	Benchmark - At Grade Level
M, RACHEL	19	28	Emerging	12	22	At risk	36	50	Low Risk	8	22	Some Risk	Strategic - Additional Intervention
B, SARAH	19	28	Emerging	16	32	Some risk	7	11	Some Risk	10	28	Some Risk	Strategic - Additional Intervention
E, SERENA	21	35	Emerging	7	12	At risk	32	43	Low Risk	0	3	At Risk	Strategic - Additional Intervention
G, BENJAMIN	23	41	Emerging	40	78	Low risk	42	63	Low Risk	29	75	Low Risk	Benchmark - At Grade Level
S, KYLE	24	47	Emerging	9	16	At risk	34	47	Low Risk	10	28	Some Risk	Strategic - Additional Intervention
P, CHRYSALICE	24	47	Emerging	39	76	Low risk	40	59	Low Risk	33	83	Low Risk	Benchmark - At Grade Level
J, MADISON	24	47	Emerging	59	95	Low risk	50	79	Low Risk	43	94	Low Risk	Benchmark - At Grade Level
D, FAYTH	26	54	Established	22	46	Some risk	50	79	Low Risk	26	69	Low Risk	Benchmark - At Grade Level
H, OLIVIA	29	63	Established	36	71	Low risk	14	21	Some Risk	30	77	Low Risk	Benchmark - At Grade Level
S, KYLER	30	66	Established	25	53	Some risk	48	74	Low Risk	7	19	Some Risk	Benchmark - At Grade Level
F, KARLEE	30	66	Established	32	65	Low risk	30	40	Low Risk	25	66	Low Risk	Benchmark - At Grade Level
H, KENDRA	30	66	Established	80	> 99	Low risk	52	85	Low Risk	59	98	Low Risk	Benchmark - At Grade Level
G, TEVIN	32	72	Established	69	99	Low risk	59	95	Low Risk	27	71	Low Risk	Benchmark - At Grade Level
S, BRIANA	34	77	Established	28	58	Low risk	50	79	Low Risk	27	71	Low Risk	Benchmark - At Grade Level
C, ZACHARY	34	77	Established	68	99	Low risk	50	79	Low Risk	53	97	Low Risk	Benchmark - At Grade Level
J, SARAH	38	85	Established	51	91	Low risk	55	90	Low Risk	26	69	Low Risk	Benchmark - At Grade Level
E, MELISSA	41	89	Established	44	83	Low risk	33	45	Low Risk	20	55	Low Risk	Benchmark - At Grade Level
W, LAURA	60	98	Established	55	93	Low risk	55	90	Low Risk	40	91	Low Risk	Benchmark - At Grade Level
	26.9	Mean		34.8	Mean		37.5	Mean		24	Mean		

Dynamic Indicators of Basic Early Literacy Skills
First Summary Report

District: Test District
School: Adams
Date: 2000-2001

	September	January	May
LNF	Goal: 37 letter names		
Students Tested	77		
Mean (SD)	37.2 (17.8)		
	49% Low risk		
	25% Some risk		
	26% At risk		
PSF	Goal: 35 phonemes	Goal: 35 phonemes	Goal: 35 phonemes
Students Tested	77	73	75
Mean (SD)	40.7 (18.1)	52.5 (16.4)	54.5 (13.3)
	73% Established	86% Established	91% Established
	18% Emerging	12% Emerging	9% Emerging
	9% Deficit	1% Deficit	
NWF	Goal: 24 letter sounds	Goal: 50 letter sounds	Goal: 50 letter sounds
Students Tested	77	73	75
Mean (SD)	31.4 (25)	61.3 (33.4)	80.6 (34.3)
	60% Low Risk	62% Established	77% Established
	21% Some Risk	27% Emerging	23% Emerging
	19% At Risk	11% Deficit	
ORF		Goal: 20 words per minute	Goal: 40 words per minute
Students Tested		73	75
Mean (SD)		37.7 (35.9)	62.4 (40)
		62% Low Risk	68% Low Risk
		29% Some Risk	19% Some Risk
		10% At Risk	13% At Risk

Individual Student Reports

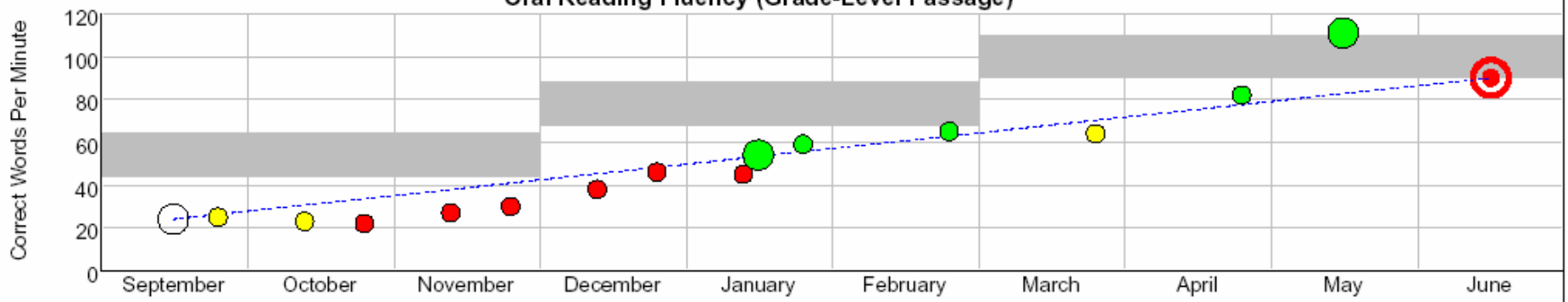
- Provides data on individual students
  - Across a school year
  - Across the students' elementary career
- Data are provided for each reading skill and can be compared to benchmark goals

Name: Smith, Robert
ID:
Class: Sample 2nd
Grade: Second
Year: 2004-2005
School: A Test School
District: Somewhere, USA

Dynamic Indicators of Basic Early Literary Skills
Progress Monitoring Graphs

Smith, Robert Page 1 of 1

Legend
- Target Bar
- Target Goal
- Benchmark Assessment
- Progress Monitoring Assessment
- Aimline
- Score Above Graph Bounds
- Score At or Above Aimline
- Score Below Aimline
- Consider Adjusting Intervention



Benchmark Scores:	24			54				111

Progress Monitoring Scores

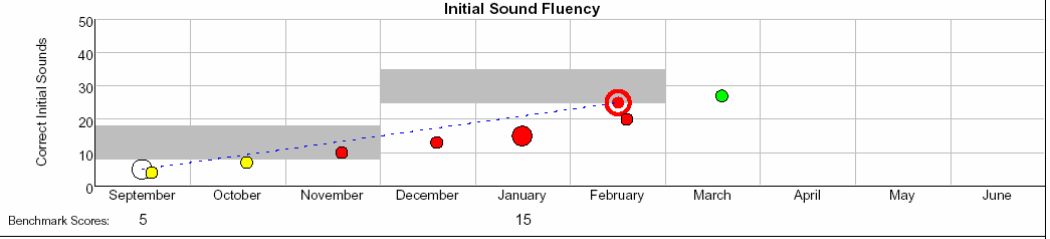
Week 1								
Week 2		23	27	38	45			
Week 3								
Week 4	25	22	30	46	59	65	64	82

Name: Smith, John
ID:
Class: Sample AM
Grade: Kindergarten
Year: 2004-2005
School: A Test School
District: Somewhere, USA

Dynamic Indicators of Basic Early Literary Skills
Progress Monitoring Graphs

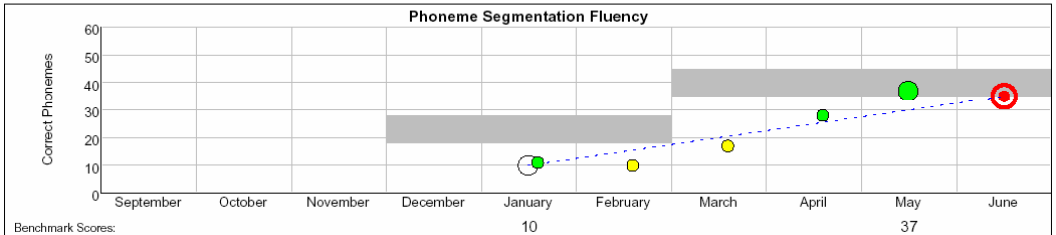
Legend
- Target Bar
- Target Goal
- Benchmark Assessment
- Progress Monitoring Assessment
- Aimline
- Score Above Graph Bounds
- Score At or Above Aimline
- Score Below Aimline
- Consider Adjusting Intervention

Initial Sound Fluency



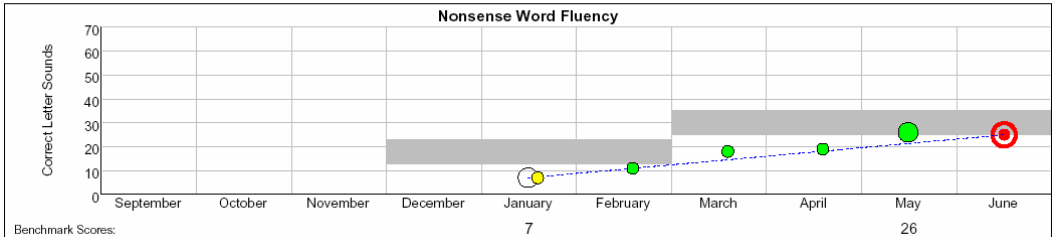
Benchmark Scores:	5			15					
Progress Monitoring Scores									
Week 1									
Week 2									
Week 3	4	7	10	13		20	27		
Week 4									

Phoneme Segmentation Fluency

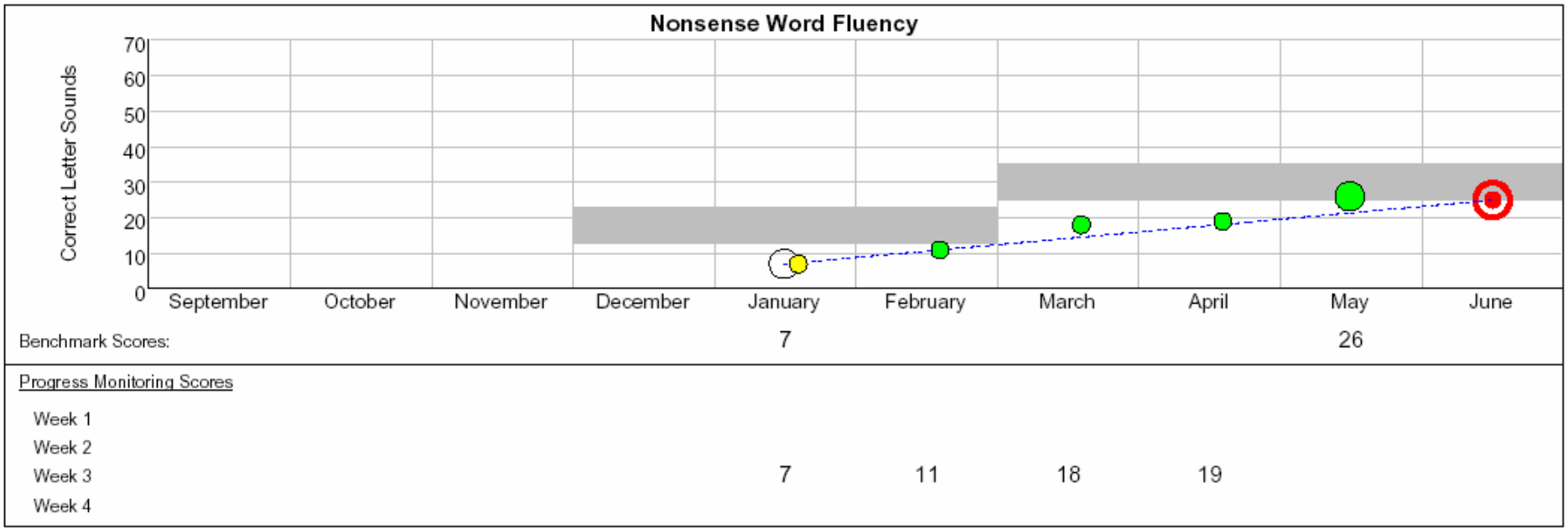


Benchmark Scores:				10				37	
Progress Monitoring Scores									
Week 1									
Week 2									
Week 3				11	10	17	28		
Week 4									

Nonsense Word Fluency



Benchmark Scores:				7				26	
Progress Monitoring Scores									
Week 1									
Week 2									
Week 3				7	11	18	19		
Week 4									

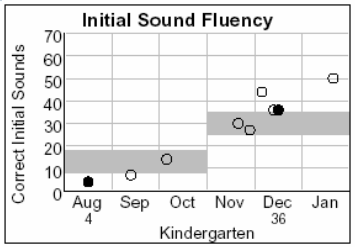

Nonsense Word Fluency
Correct Letter Sounds
70
60
50
40
30
20
10
0
September
October
November
December
January
February
March
April
May
June
Benchmark Scores:
7
26
Progress Monitoring Scores
Week 1
Week 2
Week 3
Week 4
7
11
18
19

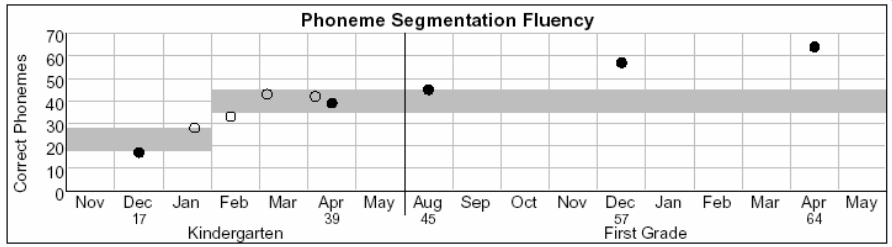
Name: Smith, John
ID: 123456
Class: Johnson 1st
Grade: First
Year: 2004-2005
School: Sample Elementary
District: Sample District

Dynamic Indicators of Basic Early Literary Skills
Individual Student Performance Profile

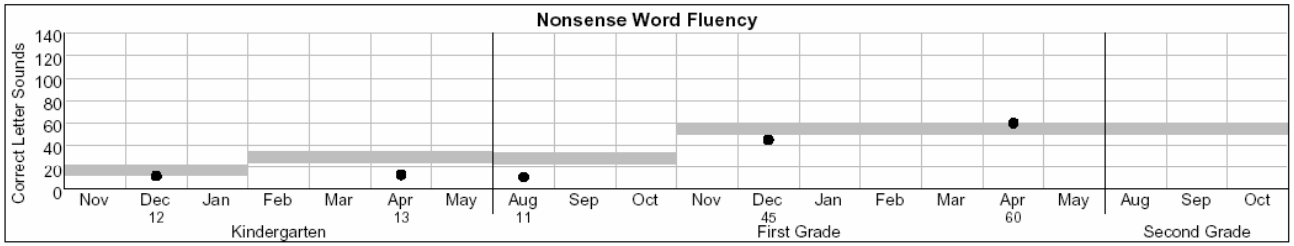
Legend
Target Goal
Benchmark Assessment
Progress Monitoring Assessment
Score Above Graph Bounds
Score Above Graph Bounds

PHONEMIC AWARENESS

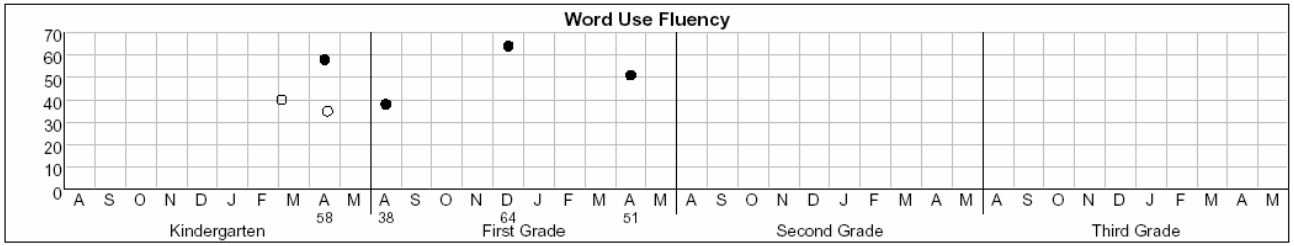




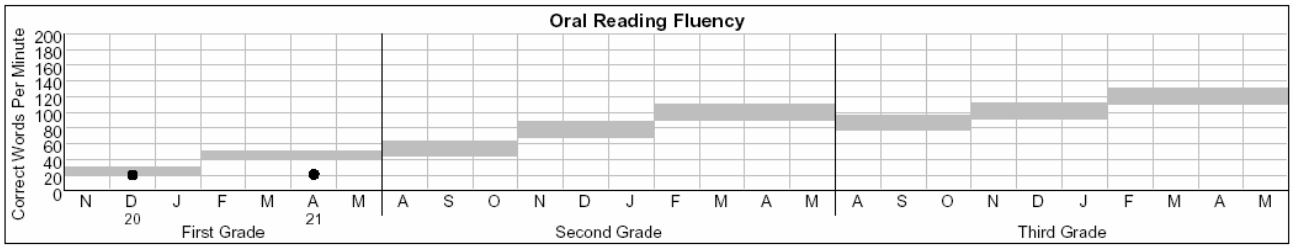
ALPHABETIC PRINCIPLE



VOCABULARY



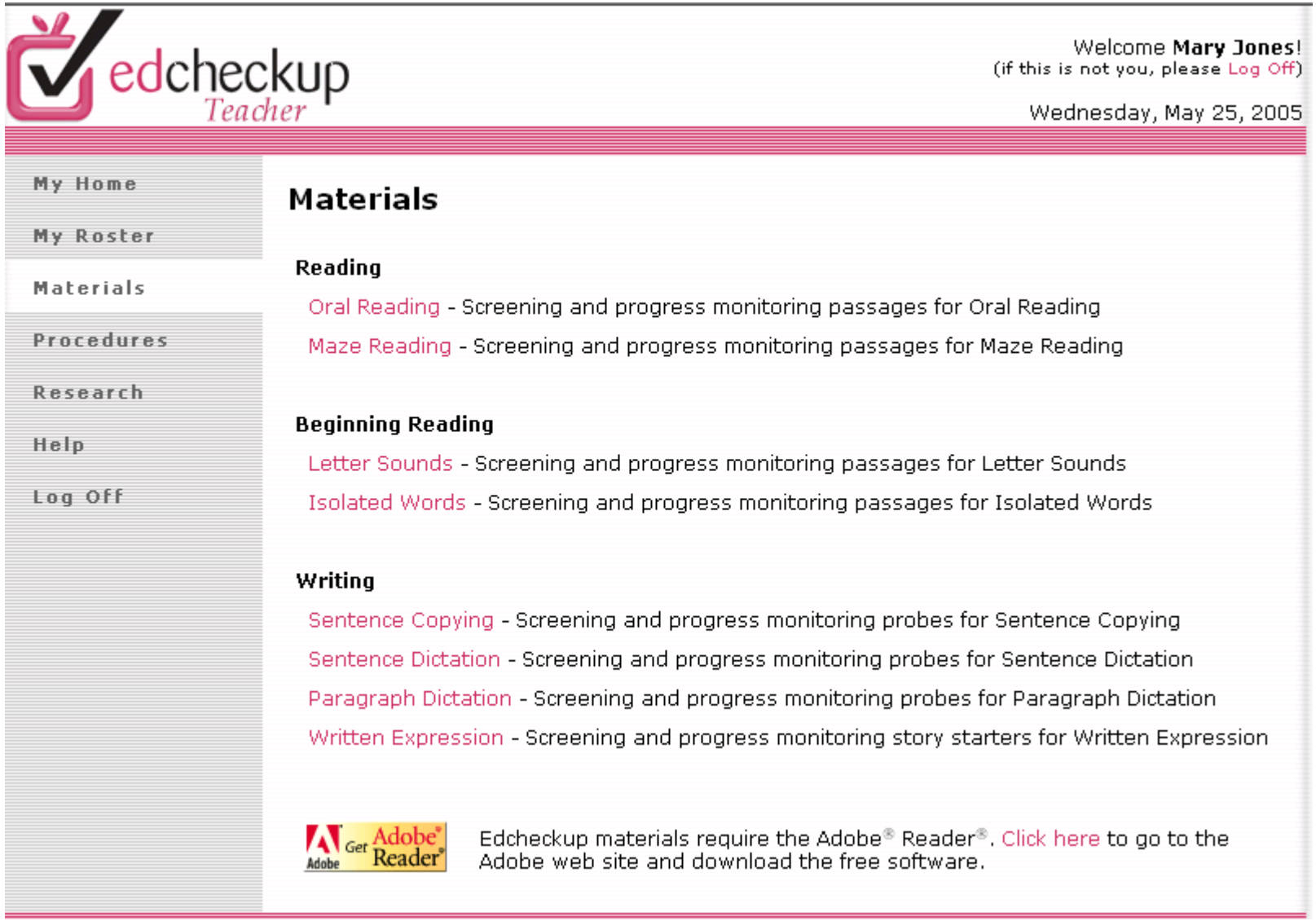
FLUENCY AND COMPREHENSION



Edcheckup

- http://www.edcheckup.com

Edcheckup Reading and Writing: Measures That Can Be Downloaded and Printed



Edcheckup Letter Sounds

Curriculum-Based Measurement:
Letter Sounds - Screening
Student Copy 1

Student Copy

a X e J V l C d L y

r B F P F d g N s w

Curriculum-Based Measurement:
Letter Sounds - Screening
Examiner Copy 1

Examiner copy with numbered lines

a X e J V l C d L y **10**

r B F P F d g N s w **20**

Edcheckup Isolated Words

Student Copy

Curriculum-Based Measures:
Isolated Words - Screening
Student Copy 1

he	an	see	play	have	two
good	make	get	who	three	live

Curriculum-Based Measures:
Isolated Words - Screening
Examiner Copy 1

Examiner copy with numbered lines

he	an	see	play	have	two	6
good	make	get	who	three	live	12

Edcheckup Oral Reading

Student Probe

King

King was a very big dog. He was so big that Mom wanted me to stay away from him. He lived two houses down the street from us. He had a great big dog house. There was a six foot high steel fence around his house.

King

Examiner Probe with Line Numbers

King was a very big dog. He was so big that Mom	12
wanted me to stay away from him. He lived two houses	23
down the street from us. He had a great big dog house.	35
There was a six foot high steel fence around his house.	46
When people walked by, King would bark loudly at them.	56

Edcheckup Maze Reading

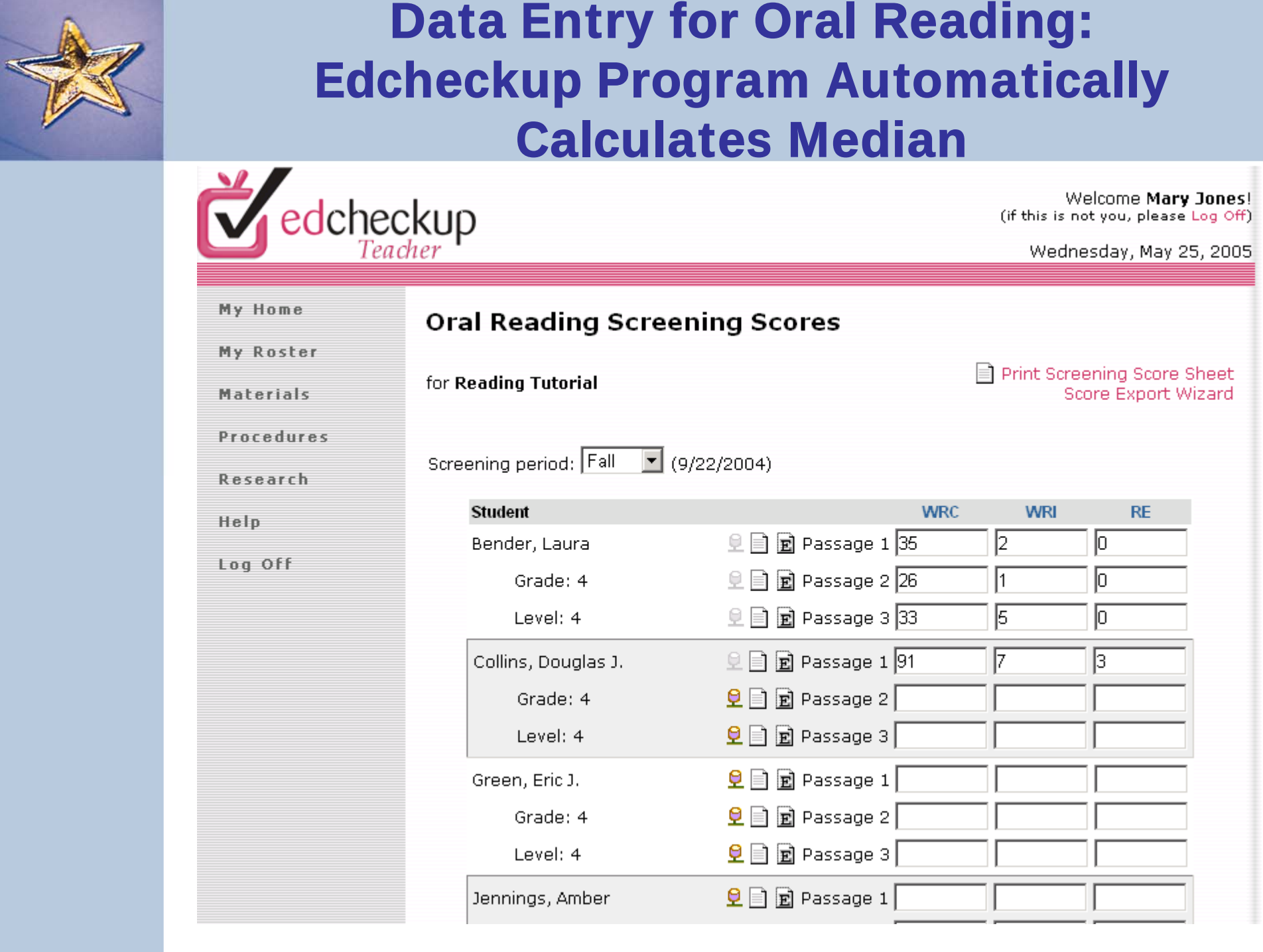
Name_____ Date_____

King

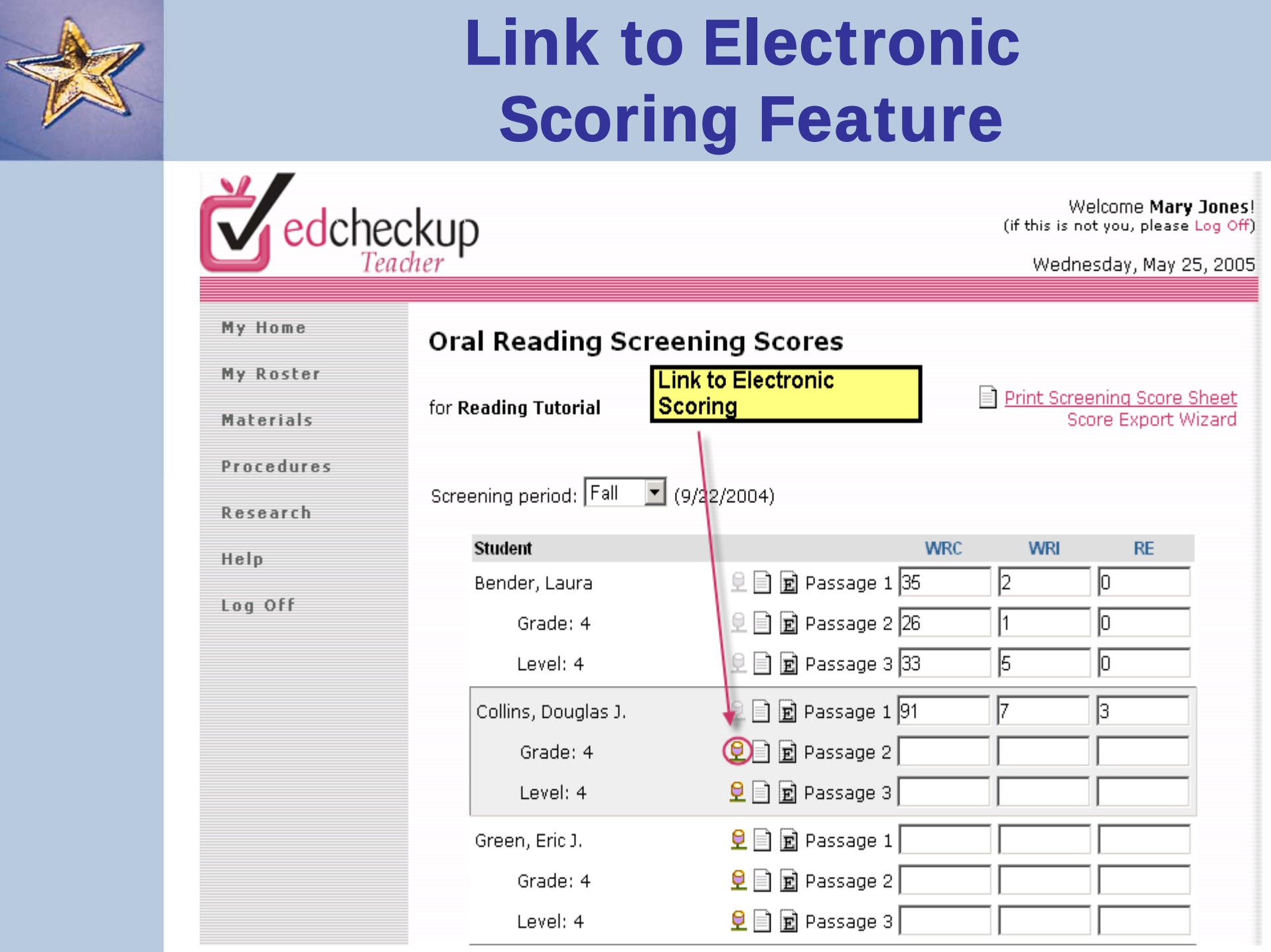
King was a very big dog. He was so big that Mom (**wanted, supper, bat**) me to stay away from him. (**He, The, Tree**) lived two houses down the street (**sit, pill, from**) us. He had a great big (**little, up, dog**) house. There was a six foot (**stop, high, food**) steel fence around his house. When (**top, sat, people**) walked by, King would bark loudly (**tip, I, at**) them. These people were glad to (**see, pop, bad**) the tall fence around his house.

Maze Probe
Student chooses the correct word for the sentence

Data Entry for Oral Reading: Edcheckup Program Automatically Calculates Median



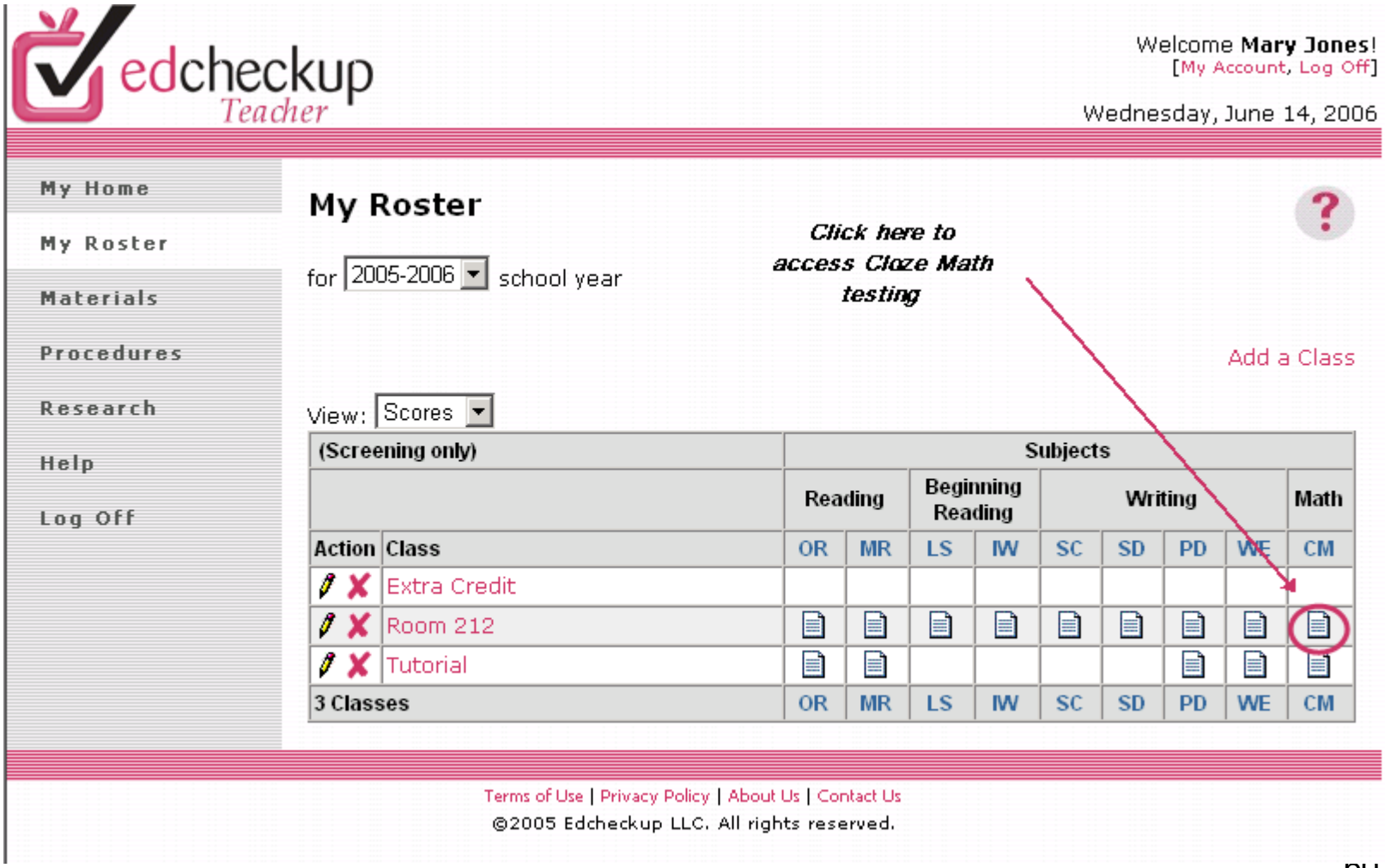
Link to Electronic Scoring Feature



Electronic Scoring Feature

Scores are automatically calculated and stored

Roster Shows Class Lists and Measures (including Cloze Math)



Cloze Math--Electronic Scoring Option

Assessment Info

Student: **gret, hansen** Test Type: **Screening**

Period: **Spring** Probe: **Probe 1**

Probe 1

2 x 6 = 12	45 ÷ 9 = 5	8 + 6 = 14	___ x 9 = 0
3 x ___ = 18	16 ÷ 4 = ___	___ - 1 = 2	64 ÷ ___ = 8
0 + 1 = ___	___ + 5 = 7	4 x ___ = 8	6 + 7 = ___
___ + 7 = 16	4 x ___ = 36	0 ÷ 6 = ___	___ - 9 = 5
9 x ___ = 9	1 - 0 = ___	___ + 7 = 14	27 ÷ ___ = 9
0 ÷ 8 = ___	___ x 5 = 45	2 + ___ = 5	1 x 4 = ___

Cloze Math--Paper and Pencil Option (with examiner copy)

Curriculum-Based Measurement:
Cloze Math - Screening
Student Copy 1

8 x ☐ = 24	13 – 7 = ☐	☐ ÷ 2 = 4	5 + ☐ = 7
2 + 8 = ☐	☐ ÷ 2 = 0	3 + ☐ = 12	1 x 4 = ☐
☐ ÷ 6 = 6	7 – ☐ = 5	1 x 5 = ☐	☐ – 3 = 7
9 – ☐ = 2	6 x 8 = ☐	☐ – 1 = 1	5 x ☐ = 5
4 – 3 = ☐	☐ ÷ 4 = 6	0 + ☐ = 5	5 x 9 = ☐
☐ ÷ 1 = 7	2 + ☐ = 5	6 – 3 = ☐	☐ ÷ 7 = 3
2 + ☐ = 4	1 + 9 = ☐	☐ ÷ 3 = 0	3 + ☐ = 3
9 x 3 = ☐	☐ x 3 = 9	13 – ☐ = 5	6 x 1 = ☐
☐ ÷ 2 = 5	3 + ☐ = 3	0 x 4 = ☐	☐ – 9 = 0
15 – ☐ = 9	0 + 0 = ☐	☐ ÷ 2 = 3	24 ÷ ☐ = 6

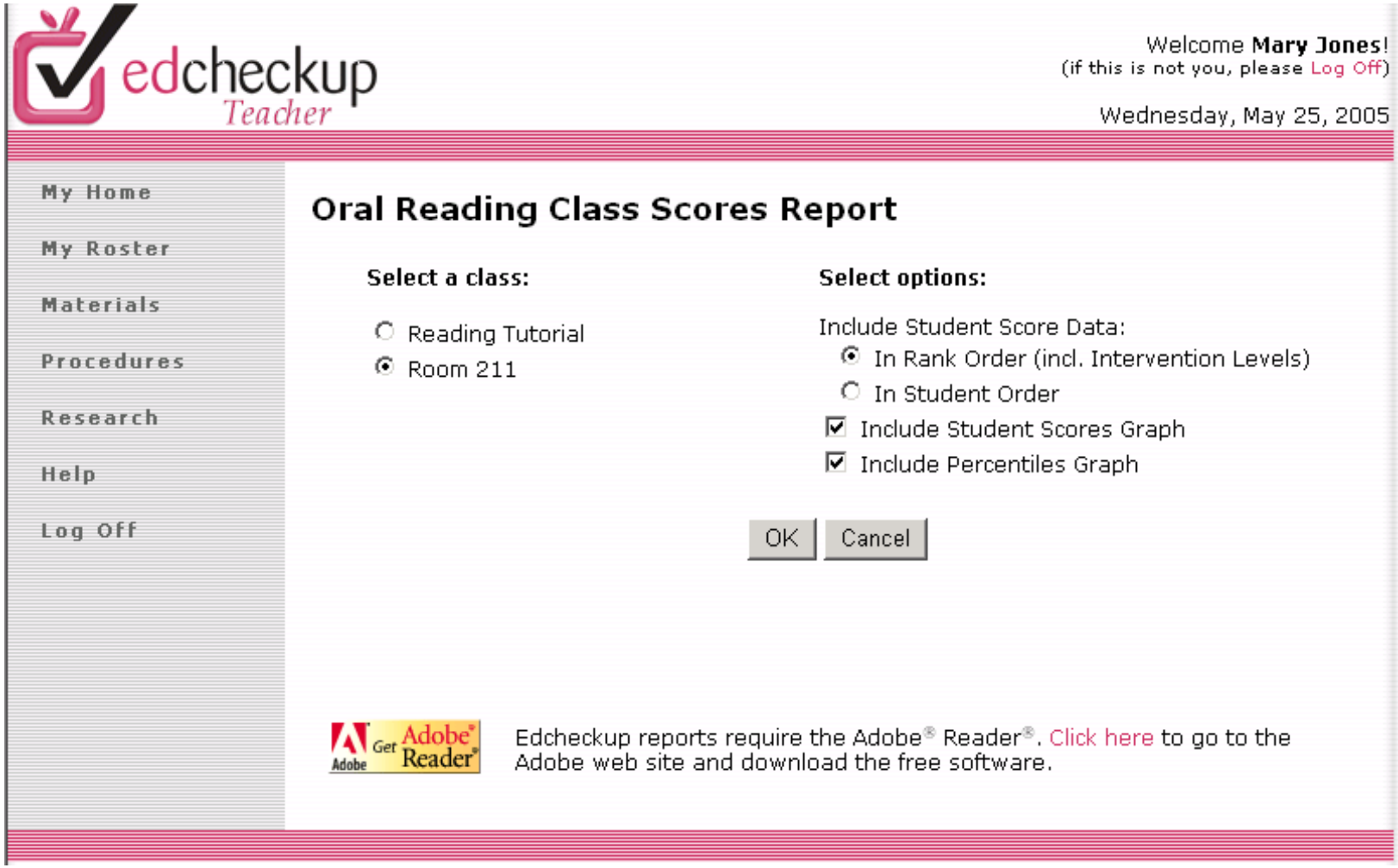
Name:_____

Number Correct:_____
Number Incorrect:_____

Curriculum-Based Measurement:
Cloze Math - Screening
Examiner Copy 1

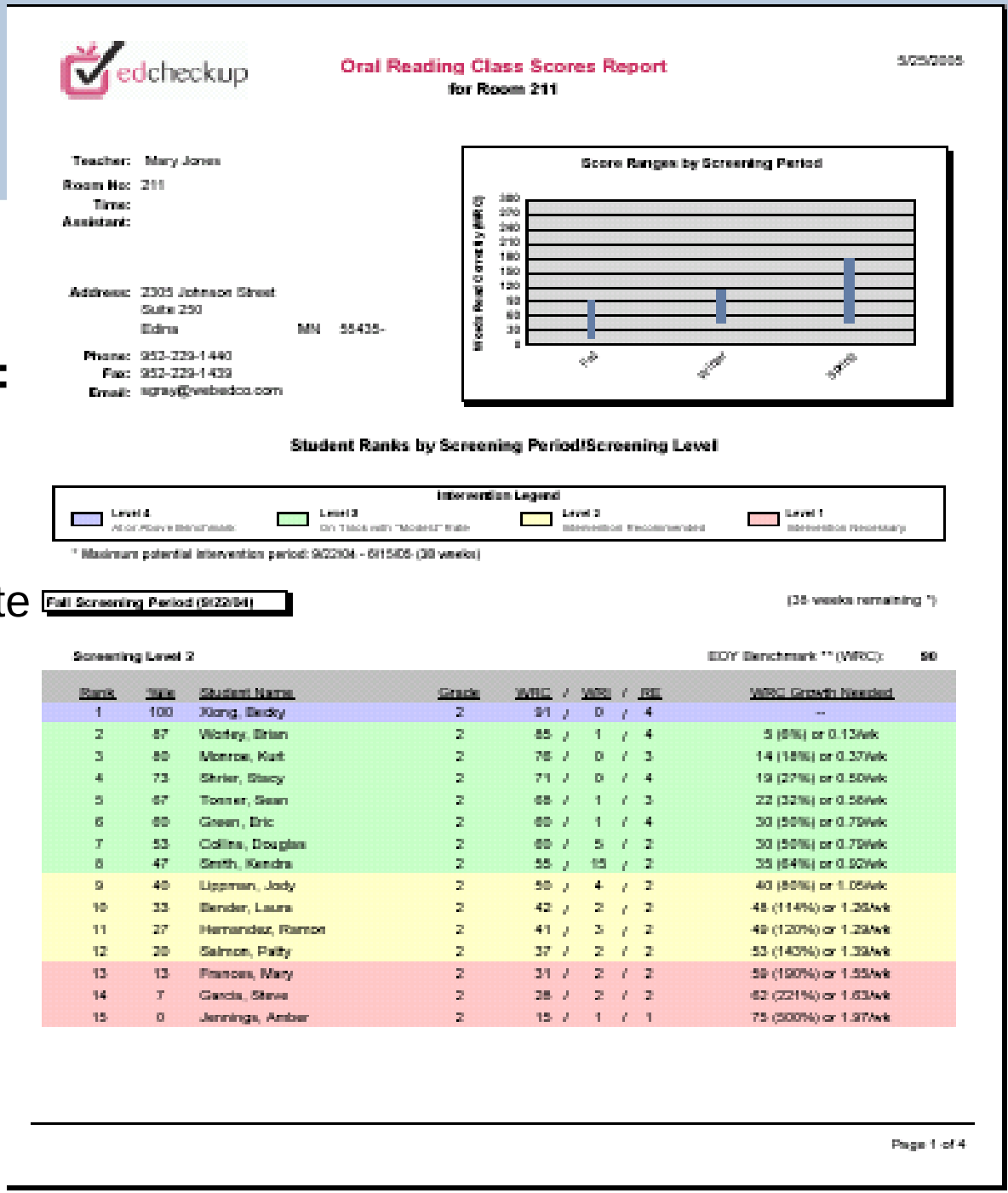
8 x **3** = 24	13 – 7 = **6**	**8** ÷ 2 = 4	5 + **2** = 7
2 + 8 = **10**	**0** ÷ 2 = 0	3 + **9** = 12	1 x 4 = **4**
36 ÷ 6 = 6	7 – **2** = 5	1 x 5 = **5**	**10** – 3 = 7
9 – **7** = 2	6 x 8 = **48**	**2** – 1 = 1	5 x **1** = 5
4 – 3 = **1**	**24** ÷ 4 = 6	0 + **5** = 5	5 x 9 = **45**
7 ÷ 1 = 7	2 + **3** = 5	6 – 3 = **3**	**21** ÷ 7 = 3
2 + **2** = 4	1 + 9 = **10**	**0** ÷ 3 = 0	3 + **0** = 3
9 x 3 = **27**	**3** x 3 = 9	13 – **8** = 5	6 x 1 = **6**
10 ÷ 2 = 5	3 + **1** = 3	0 x 4 = **0**	**9** – 9 = 0
15 – **6** = 9	0 + 0 = **0**	**1** ÷ 2 = 3	24 ÷ **4** = 6

Class Reports Options Page



Class Report with Recommendations Regarding Interventions:

- At or above benchmark (blue)
- On track with modest rate (green)
- Intervention recommended (yellow)
- Intervention necessary (red)



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Oral Reading Class Scores Report
for Room 211

3/25/2005

Teacher: Mary Jones
Room No: 211
Time:
Assistant:

Address: 2395 Johnson Street
Suite 290
Edina MN 55435-

Phone: 952-229-1440
Fax: 952-229-1439
Email: sgray@webedca.com

Student Ranks by Screening Period/Screening Level

* Maximum potential intervention period: 9/22/04 - 6/15/05 (39 weeks)

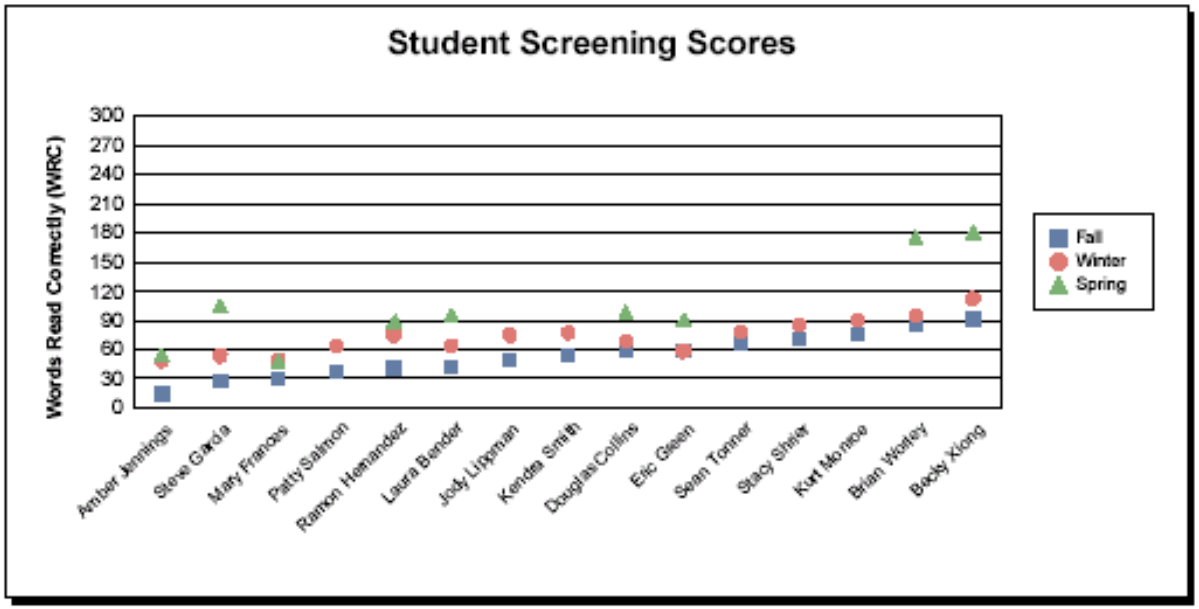
Fall Screening Period (9/22/04) (38 weeks remaining *)

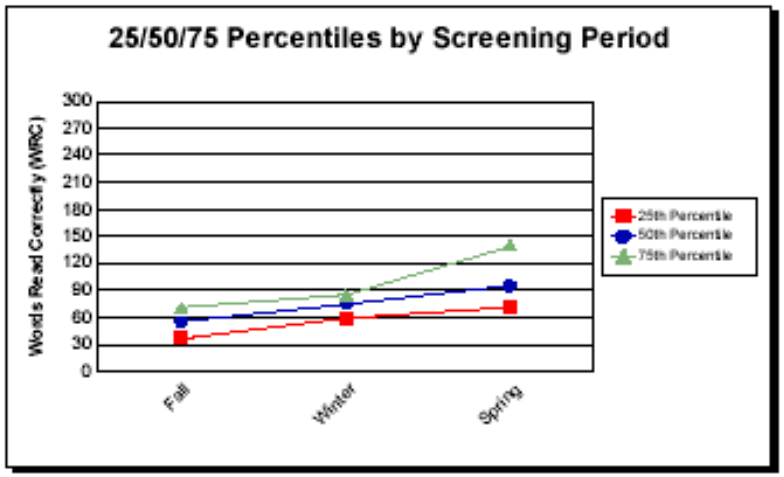
Screening Level 2 EOY Benchmark ** (WRC): 90

Rank	Tile	Student Name	Grade	WRC	/	WRI	/	RE	WRC Growth Needed
1	100	Xiong, Becky	2	91	/	0	/	4	--
2	87	Worley, Brian	2	85	/	1	/	4	5 (6%) or 0.13/wk
3	80	Monroe, Kurt	2	76	/	0	/	3	14 (18%) or 0.37/wk
4	73	Shrier, Stacy	2	71	/	0	/	4	19 (27%) or 0.50/wk
5	67	Tanner, Sean	2	68	/	1	/	3	22 (32%) or 0.58/wk
6	60	Green, Eric	2	60	/	1	/	4	30 (50%) or 0.79/wk
7	53	Collins, Douglas	2	60	/	5	/	2	30 (50%) or 0.79/wk
8	47	Smith, Kendra	2	55	/	15	/	2	35 (64%) or 0.92/wk
9	40	Lippman, Jody	2	50	/	4	/	2	40 (80%) or 1.05/wk
10	33	Bender, Laura	2	42	/	2	/	2	48 (114%) or 1.26/wk
11	27	Hernandez, Ramon	2	41	/	3	/	2	49 (120%) or 1.29/wk
12	20	Salmon, Patty	2	37	/	2	/	2	53 (143%) or 1.39/wk
13	13	Frances, Mary	2	31	/	2	/	2	59 (190%) or 1.55/wk
14	7	Garcia, Steve	2	28	/	2	/	2	62 (221%) or 1.63/wk
15	0	Jennings, Amber	2	15	/	1	/	1	75 (500%) or 1.97/wk

Page 1 of 4

Additonal Graphs show class performance over Fall/Winter/Spring Screening Periods





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Oral Reading Student Scores Report

for Mary Frances

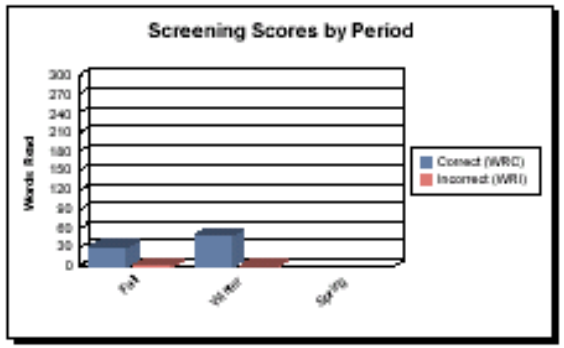
11/8/2004

Institution Information

Teacher: Susan Gray
Class: Room 211
Room No: 211
Time:
Assistant:

Address: 7701 York Avenue South
Suite 250
Edina MN 55435-

Phone: 952-229-1440
Fax: 952-229-1439
Email: sgray@wibedco.com



Student Information

Student: Frances, Mary
No: 008788
Grade: 2 Screening Level: 2

Benchmark/Intervention Information

Potential Intervention Period: 9/22/04 - 6/15/05 (38 weeks)
EOY Benchmark * (WRC): 90

Intervention Legend

- Level 4: At or Above Benchmark
- Level 3: On Track with "Modest" Rate
- Level 2: Intervention Recommended
- Level 1: Intervention Necessary

Screening Scores by Period

Screening Period	WRC	/	WRI	/	RE	Change(%)	Cum Chg(%)	Weeks	WRC Growth Needed
Fall (9/22/04)	31	/	2	/	2	--	--	38	59 (190%) or 1.55/wk
Winter (1/15/05)	90	/	1	/	2	61	61	21	40 (80%) or 1.90/wk
Spring (5/15/05)		/		/				4	

Progress Monitoring Scores

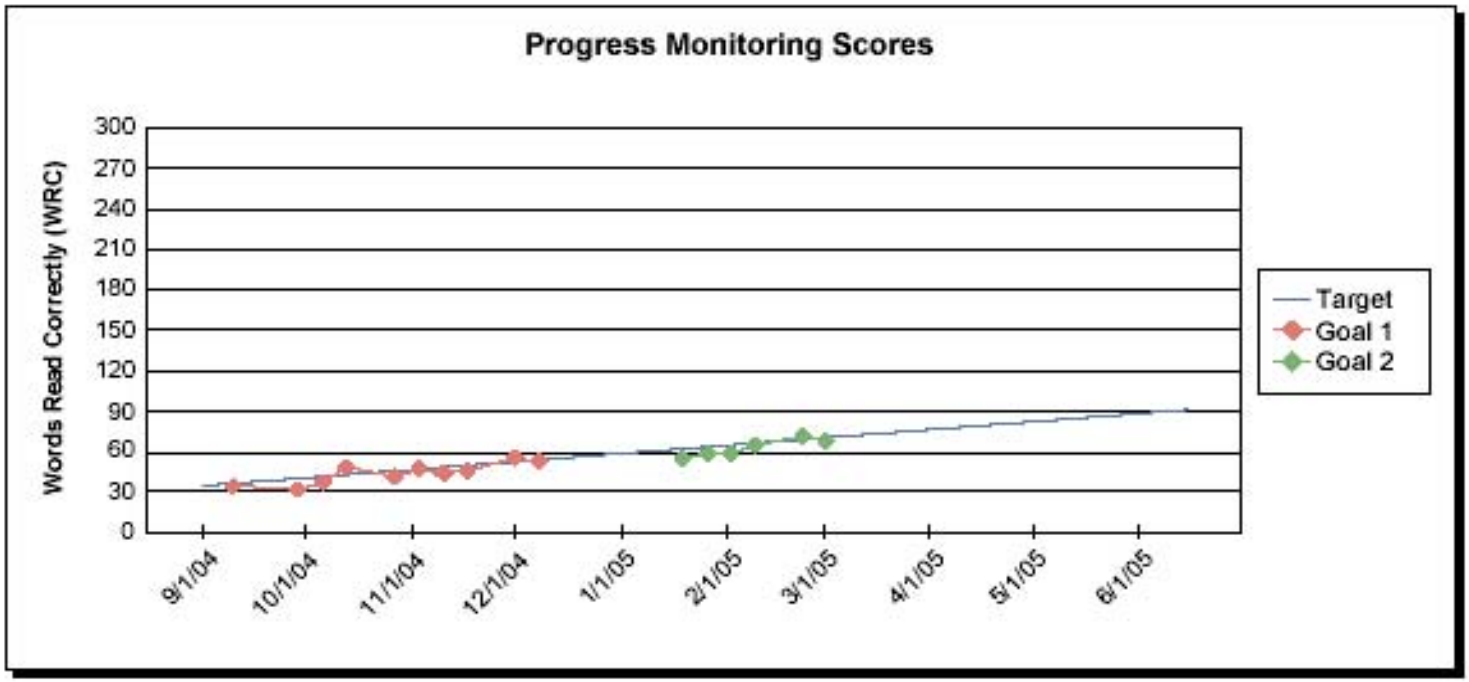
Goal	PMG	Level	No	Passage Title	Date	WRC	/	WRI	/	RE	Cum Chg(%)	WRC to PMG
1	84	2	1	Going To Bed	9/10/04	35	/	1	/	0	--	49 (140%)
1	84	2	2	Go To The Store	9/29/04	32	/	0	/	2	-9	52 (163%)
1	84	2	3	Saturday	10/6/04	38	/	2	/	2	9	46 (121%)
1	84	2	4	October Leaves	10/13/04	48	/	2	/	2	37	36 (75%)
1	84	2	5	I Like to Sing	10/27/04	42	/	1	/	2	20	42 (100%)
1	84	2	6	Power Dive	11/3/04	47	/	3	/	2	34	37 (79%)
1	84	2	7	The Owl	11/10/04	44	/	0	/	3	28	40 (91%)
1	84	2	8	Me Too!	11/17/04	48	/	1	/	3	31	36 (83%)

Page 1 of 2

Edcheckup Individual Student Report: Screening and Progress Monitoring Data

edcheckup

Student Report shows progress against a goal line

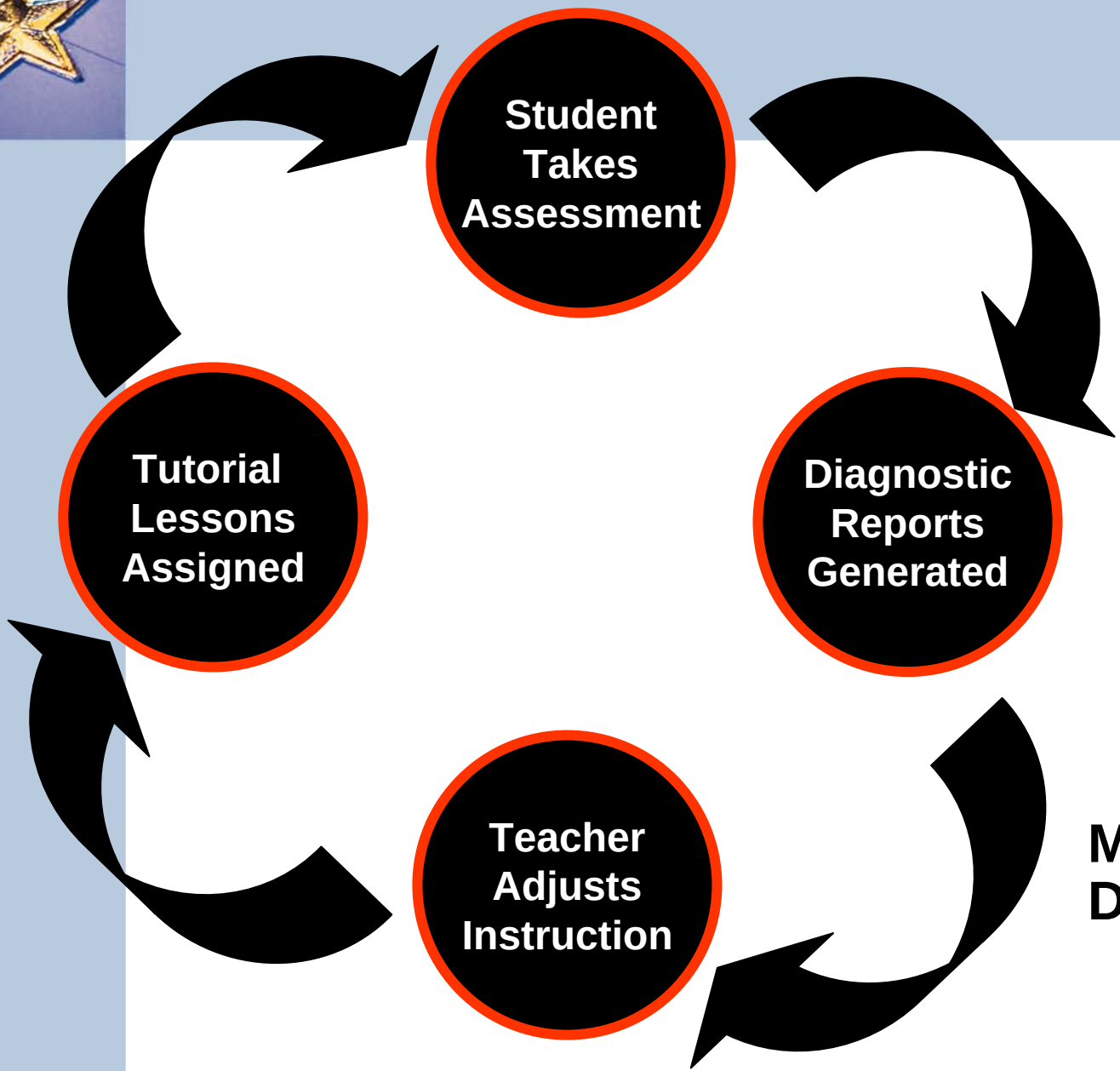


McGraw-Hill Digital Learning: Yearly Progress Pro™

- http://www.mhdigitallearning.com

McGraw-Hill Digital Learning: Yearly Progress Pro™

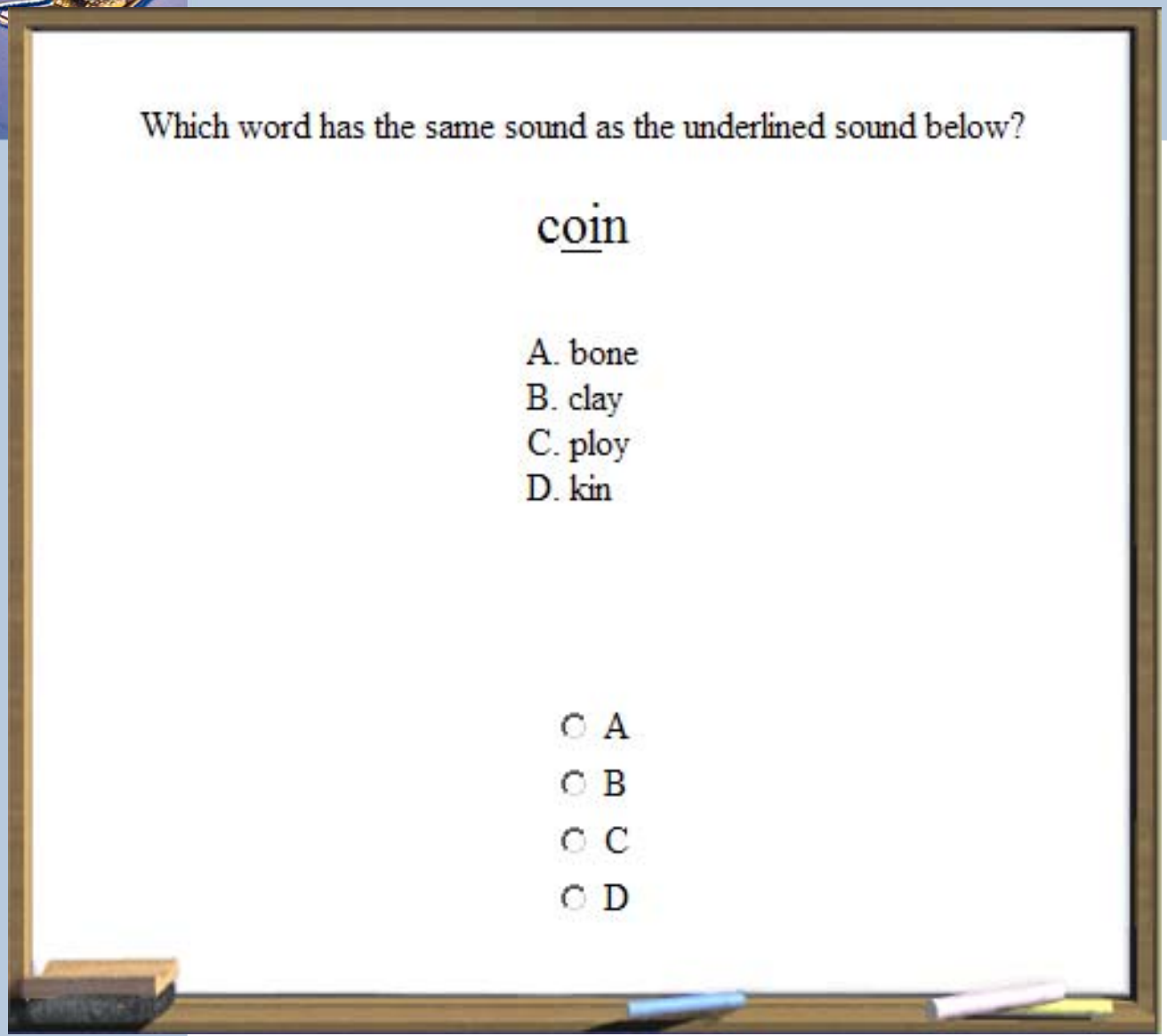
- **Language Arts:** 15-minute weekly standards-based measure of specific skills:
  - Text Comprehension (includes narrative, informational, and functional passages)
  - Vocabulary
  - Spelling
  - Word Analysis
  - Language Mechanics
  - Language Usage and Expression
- **Reading:** 2 1/2-minute weekly maze measure
- **Mathematics:** 15-minute weekly standards-based measure of grade-level specific skills in both computation and problem solving



How **Yearly Progress Pro™** Works

McGraw-Hill Digital Learning

Yearly Progress Pro



Grade: 3rd

Cluster: Word Analysis

Skill: Letter-sound correspondence for vowels

McGraw-Hill Digital Learning

Make a Butterfly

Have you ever seen a butterfly fly in the air? Here's a project you can do with your friends. It takes just six steps to turn a sandwich bag into your own butterfly!

Sandwich-sized, zip close bag
Tissue paper (Use lots of colors!)
6-inch long pipe cleaner
Scissors

1. Cut the tissue paper into 1-inch squares.
2. Fill the sandwich bag with tissue squares.
3. Zip the bag closed.
4. Gather the bag in the middle with the zip close at the top.
5. Twist the pipe cleaner in the middle of the gather to form a butterfly.
6. Curl the ends of the pipe cleaner.

Before you close the sandwich bag, you should _____.

A. fill it with colored tissue squares
B. gather the bag in the middle
C. make a sandwich
D. curl the ends of the pipe cleaner

○ A
○ B
○ C
○ D

Grade: 3rd

Cluster: Reading Comprehension

Skill: Literal Details

McGraw-Hill Digital Learning

"Don't give up. Keep digging!" shouted my brothers and sisters. These words were helpful to me. I was getting tired after digging for three straight days. I am a sea turtle. One day, I hatched from my eggshell. I was under lots of sand on a beach. My mother took a lot of care in laying my siblings and me in a nest. This nest is not like what you would find filled with baby birds in a tree. Let me tell you about how I got where I am now.

Even though she lives in the water, my mother came ashore all by herself at night. She must have been scared. She made her way into the sand. She dug a hole and carefully laid her eggs in it. Then she used her back flippers to cover the eggs with sand. She covered the eggs to keep them safe and warm. I will keep digging out of the sand. Then I will wait until nighttime to swim into the water. I hope to find my mother someday. I want to thank her for taking a big risk so I could be born.

What is the purpose of this story?

A. to explain how sea turtles are born and get to the ocean
B. to tell us about a sea turtle that found a treasure on the beach
C. to explain what a turtle looks like
D. to describe how sea turtles love to swim

○ A
○ B
○ C
○ D

Grade: 3rd

Cluster: Reading Comprehension

Skill: Main Idea

McGraw-Hill Digital Learning

Choose the answer that has most nearly the same meaning as the underlined word above it.

Drive down the avenue

A. street
B. park
C. dress
D. automobile

○ A
○ B
○ C
○ D

Grade: 3rd

Cluster: Reading Vocabulary

Skill: Synonyms

McGraw-Hill Digital Learning

Look at the sentence or sentences below. If there is a punctuation mistake, select the letter for the line that contains the error. If there is no mistake, choose the last answer (*No mistakes*).

A. What color is that It
B. looks like a mixture of
C. purple and pink.
D. (*No mistakes*)

- A
- B
- C
- D

Grade: 3rd

Cluster: Language Mechanics

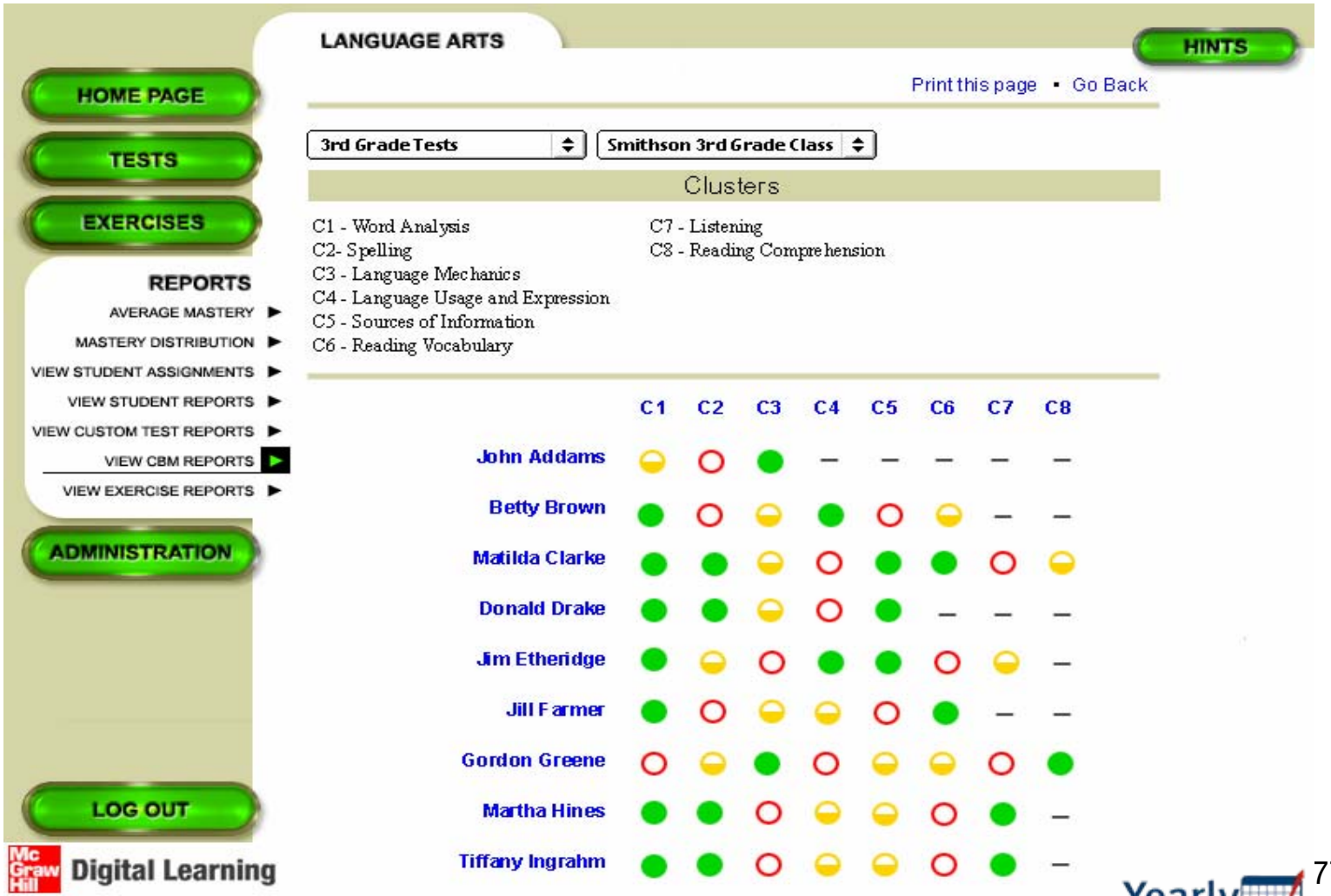
Skill: Punctuation

McGraw-Hill Digital Learning

Sample screen taken from mathematics tutorial lesson (guided practice)

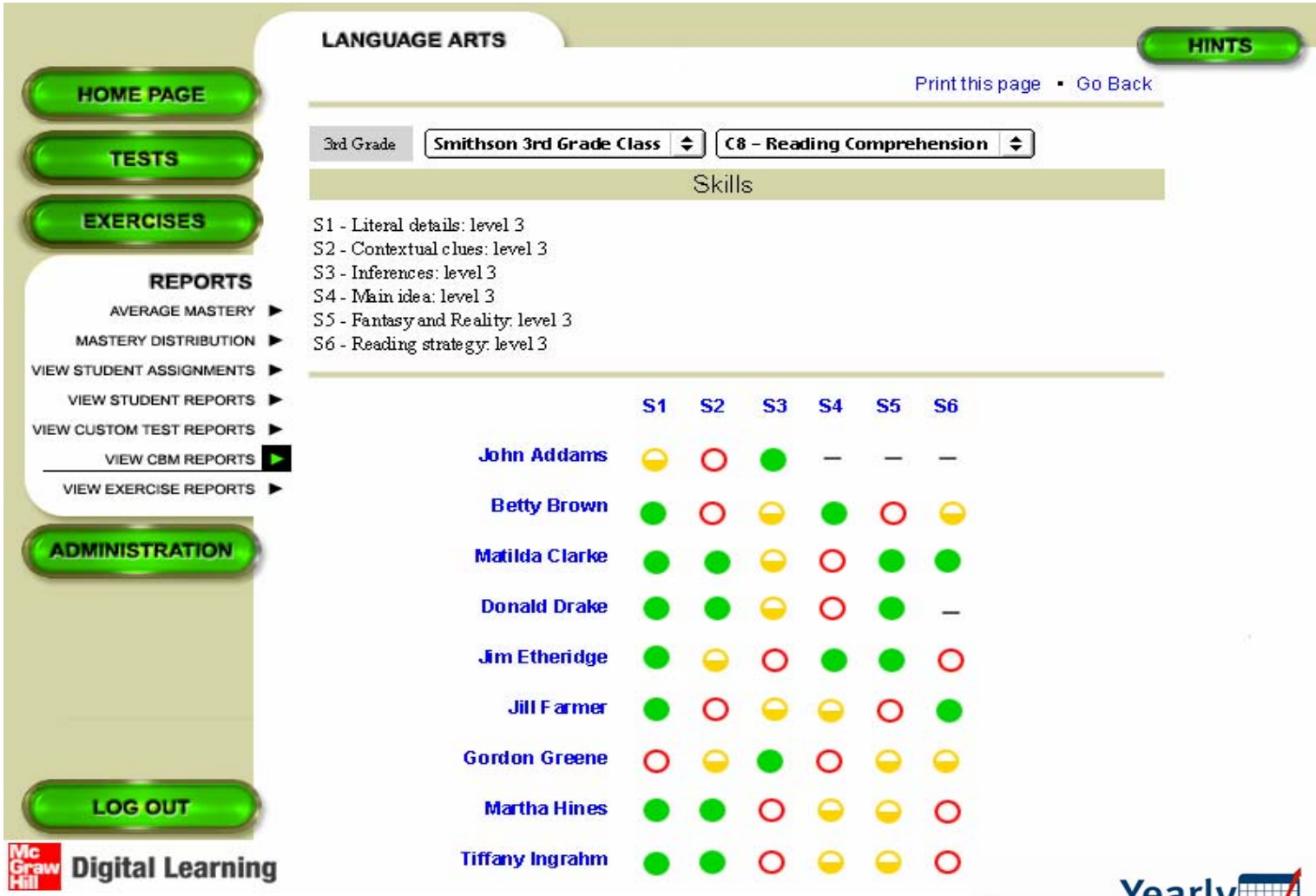
McGraw-Hill Digital Learning

Report by Skill Cluster



Yearly Progress Pro

Class Report by Skill Detail



Yearly Progress Pro

Part 3:
Generally Effective Reading Instruction

IDEAs that Work
U.S. Office of Special Education Programs

Student Progress Monitoring
studentprogress.org

General Considerations When Determining Interventions

- Using research-validated instructional procedures: Is there evidence for their effectiveness?
- Oral reading fluency or maze fluency
  - Very low scores: student probably would benefit from instruction in decoding and word identification
  - Somewhat low scores: student probably would benefit from fluency interventions
  - Average scores: student probably would benefit from vocabulary instruction and text comprehension strategies

NRP Findings Focus on Critical Areas of Literacy Instruction

- **Phonemic Awareness—**ability to hear and manipulate individual sounds in oral language
- **Phonics—**understanding and connecting letters of written language with sounds of oral language
- **Fluency—**reading text accurately and quickly
- **Vocabulary—**oral or reading language needed for effective communication
- **Text Comprehension—**purposeful and active strategies for understanding written language

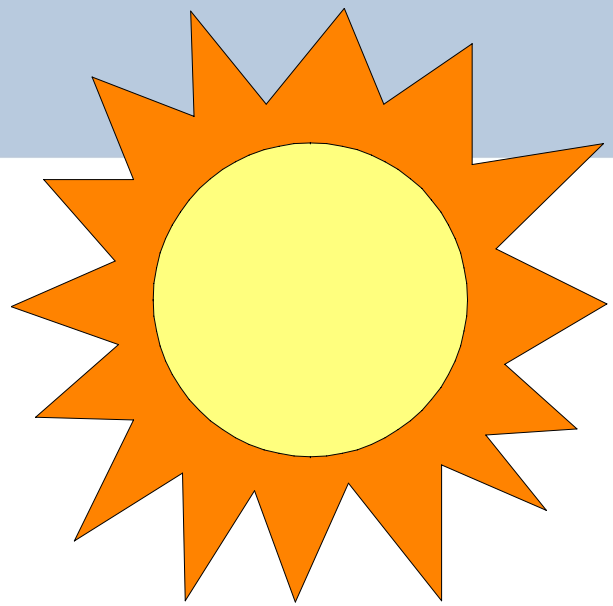
(National Reading Panel, 2000)

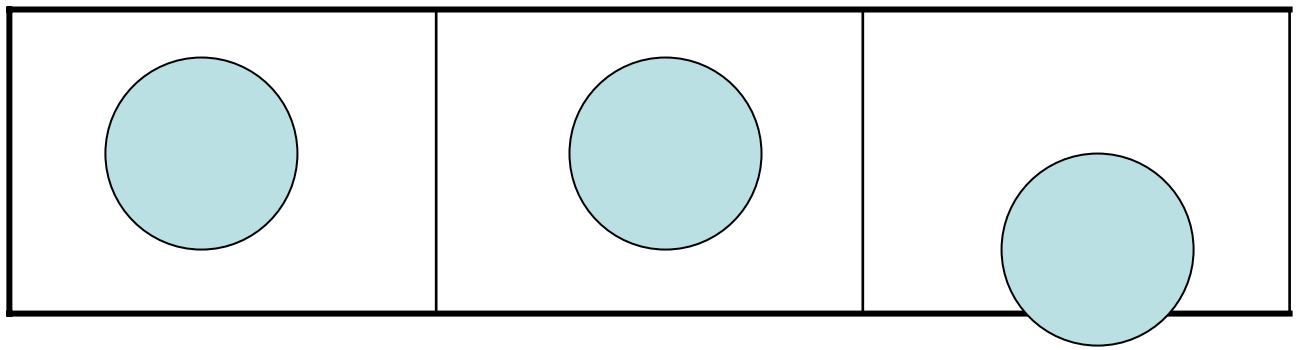
Phonemic Awareness

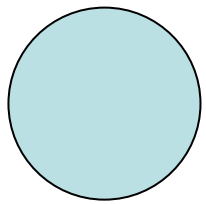
- **Phonological awareness:** The understanding that *ORAL* language can be broken down into smaller components and the ability to manipulate those components--sentences into words, words into syllables, words into onsets and rimes, and words into individual phonemes—***/s/ /u/ /n/*** **or** ***/s/ /u/ /n/ /sh/ /i/ /n/***
- **Phonemic awareness:** the ability to hear, identify, and manipulate individual sounds in spoken words; appears critical for reading and spelling development
- ***Put Reading First—various dimensions of phonemic awareness:*** phoneme isolation, identity, categorization, **blending, segmentation,** deletion, addition, substitution

Critical Dimensions of Phonemic Awareness

- **Blending:** I'll say the sounds of a word. You guess what the word is. What word is this? /fffuuunnn/ ("fun")
- **Segmenting:** I'm going to say a word, and then I'll say each sound in the word. Listen carefully. "man" /m/ /a/ /n/ Now I'll say a different word and you tell me each sound you hear.







n

s u

Phoneme Deletion or Substitution

- **Deletion:** I'm going to ask you to say a word and then to say it again without one or more of its sounds. Say "sat." Now say it again, but don't say /s/. ("at")
  Say "plate" but don't say /p/. ("late")
  Say "plane" but don't say /n/. ("play")
- **Substitution:** Say "plane" but change /pl/ to /tr/ ("train")
- **General progression of difficulty:** Beginning sounds, ending sounds, then middle sounds

Phonics

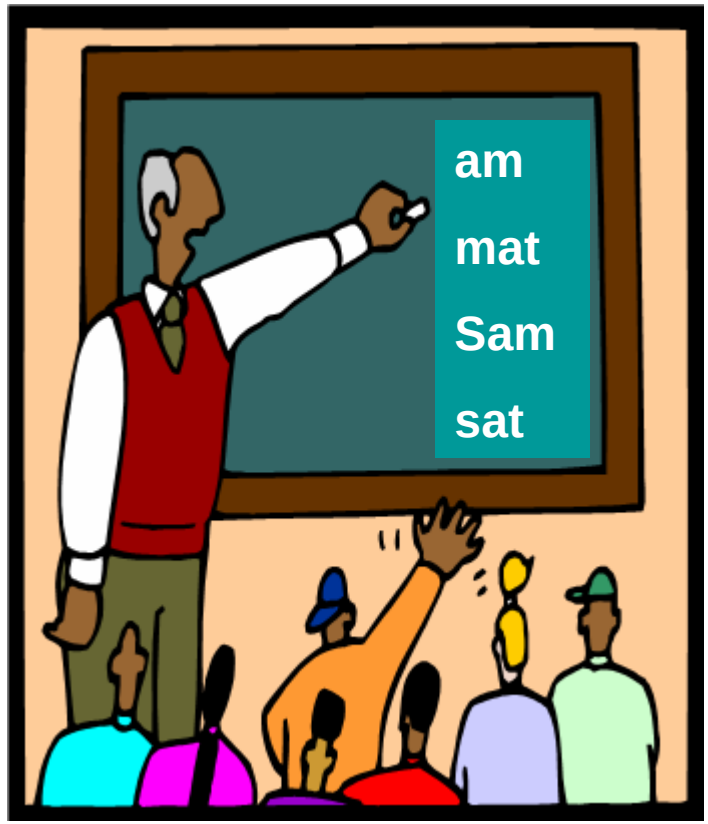
- **Systematic and Explicit Phonics** instruction significantly improves young children's decoding, spelling, and reading comprehension and older students' word reading and oral text reading skills.
  - **Systematic:** logical sequence and careful selection of letter-sounds for instruction
  - **Explicit:** precise directions for teachers or careful wording to emphasize accurate models for students and to make letter-sound relationships conspicuous

Why Is Phonics Instruction So Challenging for Many Teachers?

- Many teacher preparation programs do not provide training in phonics instruction.
- The English alphabet contains 26 letters but we use roughly 44 phonemes. These sounds are represented by as many as 250 different spellings (e.g., /f/ as in *ph, f, gh, ff*).
- Many core beginning reading programs have not emphasized systematic and explicit phonics instruction.

Phonics Instruction

- Use a functional sequence of letter-sounds, one that leads to rapid success in reading words
- Provide opportunities for practicing decoding skills both in word lists and in connected text



Systematic and Explicit Phonics Instruction

- Introduce most common sound for a new letter (/k/ for “c”)
- Separate instruction of potentially confusing letters due to visual or auditory similarity (h/n, e/i, b/d)
- May introduce lower case letters first (more functional)
- Start with high-utility letters (s, t, m, and vowels, not z, x)
- Select words that start with continuous sounds rather than stop sounds when beginning to sound out words—or for blending and segmenting practice (use “mat” before “bat”)

Fluency

- Repeated and monitored oral reading significantly improves reading fluency and overall reading achievement.
- Caution: Silent, independent reading **with little guidance or feedback** may not be enough to improve fluency and overall reading achievement.

Why Fluency Is Important

- More fluent readers focus their attention on making connections among the ideas in a text and between these ideas and their background knowledge. Therefore, they are able to focus on comprehension.
- Less fluent readers focus their attention primarily on decoding and accessing the meaning of individual words. Therefore, they appear to have little attention left for comprehending connected text.

Fluency Interventions

- Model fluent reading. Have students reread text themselves. Read aloud daily.
- Students should read aloud repeatedly with guidance.
- Use text at independent level (approx. 95% accuracy).
- Use adults, peers, or tape recorders for modeling and practicing one to one (although can do classwide partner reading). Choral reading may engage groups of students.
- Activities from *Put Reading First:*
  - Student-adult reading
  - Choral reading
  - Tape-assisted reading
  - Partner reading
  - Reader's theater

Repeated Readings as an Instructional Strategy

- Text used for repeated readings may be of varying length—often 100-word passages are used for young elementary children. Student reads text three or four times, trying to decrease the duration for each reading. Or, teacher sets a time limit, such as 1 or 2 min., for student to read as much as possible. Goal is to increase the amount read in each subsequent reading.
- Text should include only words the student can read rapidly and accurately, either through efficient decoding or good sight-word vocabulary.
- Teacher or student may chart progress and reinforce increases in rate.

Vocabulary

- Many words are learned indirectly through everyday experiences with oral and written language (e.g., conversations, listening to others read, reading independently).
- However, some vocabulary must be taught directly through specific word instruction or through word-learning strategies.

Direct Vocabulary Learning: Specific Word Instruction

- Direct vocabulary instruction aids in comprehension. However, a text may have too many unknown words for direct instruction—be selective with vocabulary. Students do not have to know all words in order to understand text.
- Words selected should be important, useful, and difficult.
- Teach specific words prior to reading text (e.g., use a model, synonym, or definition).
- Repeat exposure to vocabulary often and in many different contexts.
- Teach word-learning strategies (e.g., use of dictionaries and other reference tools, contextual clues, word parts).
- An important aspect of teaching vocabulary is selecting a set of appropriate examples.

Examples for Specific Word Instruction

- Model the concept “above.” Use hand or object and place **above** or **not above** other objects (demonstrate position).
- Teach meaning for “gigantic” by using the known synonym “large.” Connect to prior knowledge, check with examples and nonexamples, and use in sentences.
- Teach meaning by providing definition: “*exit*—a door that leads out of the building. Is this (point to front door) an exit or not? How do you know?”

(see Carnine, Silbert, Kame’enui, & Tarver, 2002)

Comprehension…

…is the reason for reading!

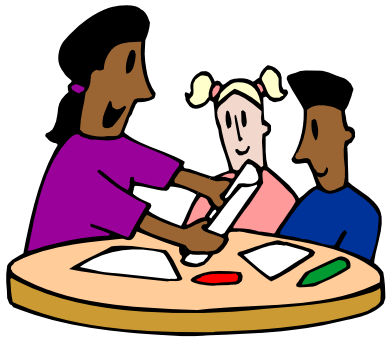
- Comprehension is both purposeful and active. Good readers have a purpose for reading, and they think actively about what they are reading as they are doing it (*metacognition*—monitoring understanding during reading and applying "fix up" strategies, such as adjusting reading speed and rereading; also checking understanding afterward).

Effective Comprehension Strategies

- **Comprehension monitoring—**involves students using a set of steps to recognize when they have difficulties understanding
- **Graphic and semantic organizers (webs, charts, frames)—**to illustrate relationships among ideas and events
- **Summarizing—**involves synthesis of important ideas; helps to identify main ideas, eliminate unnecessary information, and remember content
- **Answering questions and generating own questions—**help students to establish purpose, focus attention, think and monitor actively, review content, and relate content to prior knowledge
- **Story structure—**knowledge of story parts (e.g., characters, setting, problem, sequence of events, problem resolution) facilitates comprehension

General Guidelines for Teaching Comprehension

- **Cooperative learning—**students work together to apply comprehension strategies. Effective with clearly defined tasks and content-area reading.
- **Multiple-strategy instruction—**students use different strategies flexibly as needed to assist their comprehension.



Comprehension Strategies Should Be Taught Directly

- As with other “big ideas” in reading instruction, comprehension strategies must be taught explicitly
  - Provide explanations--why strategy helps and when it should be applied
  - Model or demonstrate strategy--think aloud
  - Provide guided practice using strategy
  - Scaffold assistance during practice opportunities until students become independent in applying strategy

Peer-Assisted Learning Strategies (PALS): A Multiple Strategy Intervention

- Classwide peer tutoring program to supplement classroom literacy instruction for practicing important reading skills and strategies, such as decoding, sight-word recognition, oral reading fluency, summarization, and prediction
- Validated instructional practices that strengthen general education's capacity to meet academic needs of increasingly diverse population in classrooms

(D. Fuchs, Fuchs, & Burish, 2000)

PALS Research

- Based on Juniper Gardens ClassWide Peer Tutoring model
- Has over 10 years of experimental research
- Used in Title 1 and Non-Title 1 Schools
- Implemented in urban and suburban schools
- Includes high, average, and low achievers as well as students with disabilities

Critical Features of PALS

- Supplemental academic practice several times per week (20-45 min. each session, depending on grade level and activities)
- Structured activities
- Reciprocal roles (Coaches and Players)
- Individualized support--corrective feedback
- More time on task with active engagement
- Inclusion of all students with built-in opportunities for success
- Facilitation of positive peer interactions
- Opportunities to monitor student progress
- Practical AND effective strategies

Application:
Case Study

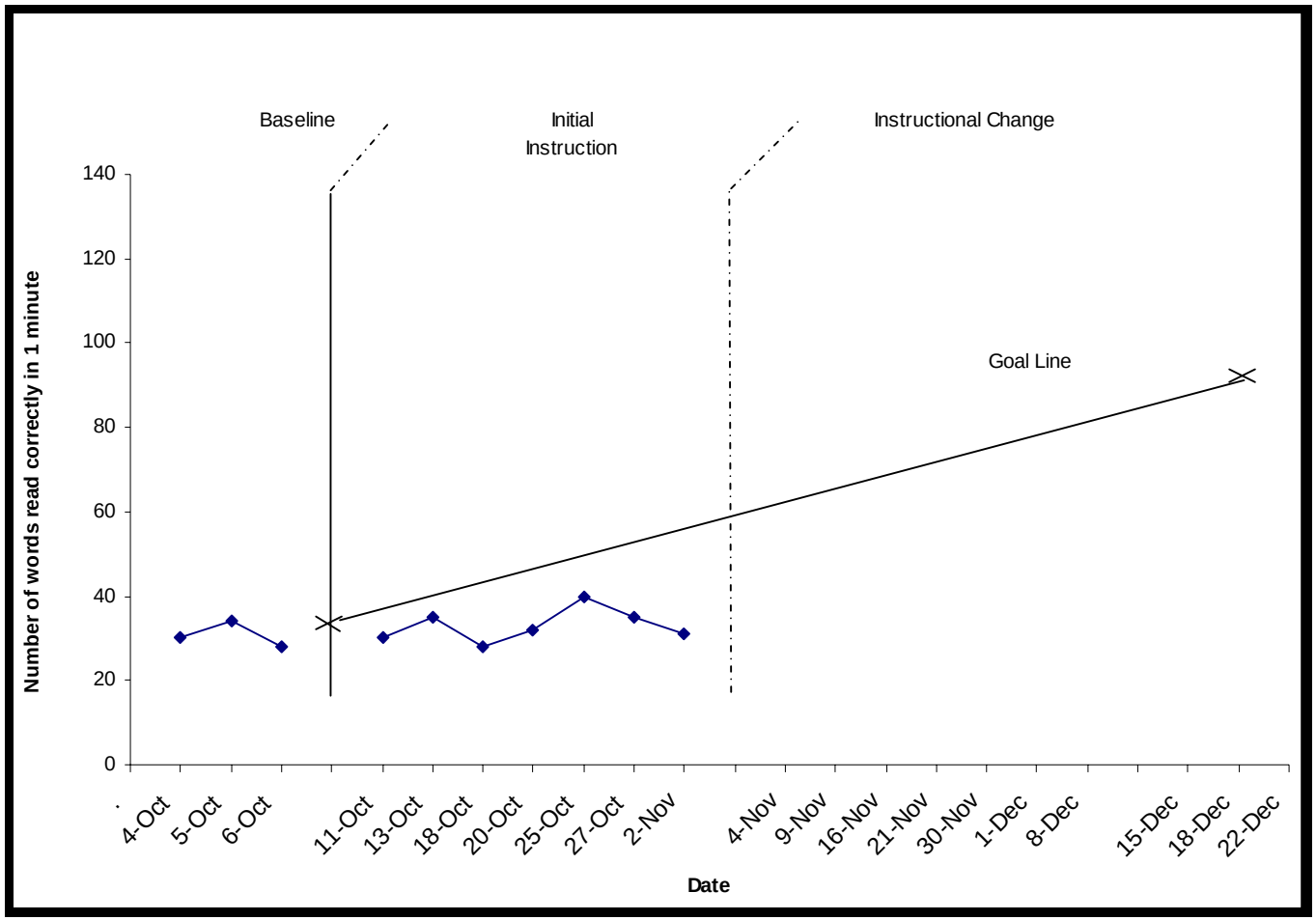
IDEAs that Work
U.S. Office of Special Education Programs

Student Progress Monitoring
studentprogress.org

General Considerations When Determining Interventions

- Using research-validated instructional procedures: Is there evidence for their effectiveness?
- Oral reading fluency or maze fluency
  - Very low scores: student likely would benefit from instruction in decoding and word identification
  - Somewhat low scores: student likely would benefit from fluency interventions
  - Average scores: student likely would benefit from vocabulary instruction and text comprehension strategies

Case Study:
Jonah's Progress Monitoring Graph



Jonah

- 2nd grader makes many errors during oral reading fluency assessments
- Word correct scores are lower than classmates': 30, 35, 28, 32, 40, 35, and 31
- Daily teacher-directed, whole-class instruction that includes some independent work; also two days per week has two reading groups focused on skills-based activities; three days per week has whole-class writing activities
- Score of 31 on last measure (seen on next slide) and Quick Miscue Analysis to illustrate types of miscues made on first 10
- What might you ask Jonah's teacher about structuring class time and activities for language arts? What type of intervention(s) might benefit Jonah?

saw him (T provided)

Larry was very excited! His father 6

our b

had just brought home a new puppy. Larry's 14

mother was much

brother and sister were going to be very 22

sorpray

surprised, too. 24

pup blue

The little puppy was black and brown 31

for much His hair was

with a few white patches. Her ears were long 40

funny teeth were torn

and floppy. Her tummy nearly touched the 47

growl our puppy boy

ground. Dad said this dog was a beagle. 55

Larry thought their new dog was cute. 62

He couldn't decide what he wanted to name 70

Word Written	Word Spoken	Grapho-phonemic	Syntax	Semantics
was	saw	no	yes	no
very	him	no	no	no
excited	-----	no	no	no
just	our	no	no	no
brought	b	minimal	no	no
brother	mother	yes	yes	no
were	was	minimal	yes	yes
very	much	no	yes	yes
surprised	sorpray	yes	no	no
puppy	pup	yes	yes	yes
Quick Miscue Analysis		30%	50%	30%

Part 4: Generally Effective Mathematics Instruction

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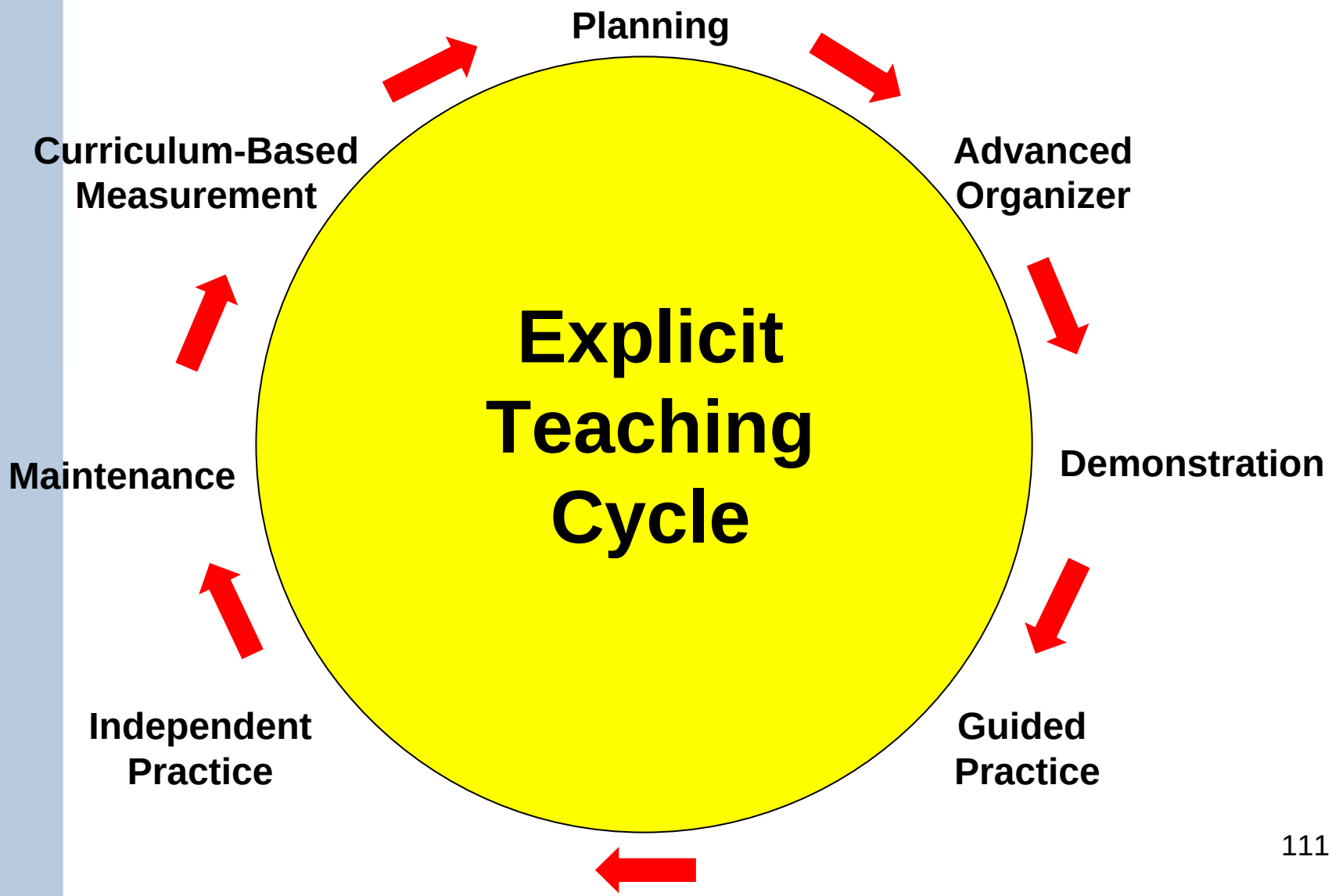
Explicit Teaching Cycle



Administer a M-CBM

- Types of Progress Monitoring for Mathematics
  - Robust indicator (e.g., using basic facts to monitor overall math proficiency across elementary grades)
  - Curriculum sampling (e.g., important skills in year-long curriculum are represented on each measure)

Plan for Instruction

- Information gathered from progress monitoring assessments is used for instructional planning
- Key principles:
  - Data-based decision making
    - Overall lesson plan decisions are based on data collected from CBM. (However, additional informal assessments may be necessary for conducting error analysis or for guiding individual lesson planning.)
  - Instructional alignment
    - Appropriate match exists between student and task variables.

Provide an Advanced Organizer

- An advanced organizer is material introduced prior to a new lesson that links specific, new information to what is already known
- They are designed to bridge that gap between the student's prior knowledge and what is to be learned and prepares the student for the lesson by focusing attention, providing motivation, and ensuring that prerequisite skills are firm

Advanced Organizers in Math

- Review of the prerequisite knowledge
- Statement of the lesson objective with link
- Development of relevance

- The teacher begins the advanced organizer with a review of prerequisite knowledge or skills. When success rate is high, the teacher prepares the students for the new lesson by stating the objective and showing the link between the new material and students' prior knowledge (usually the review material). Finally, the teacher develops relevance by helping students to see or experience the reason for learning the new material.

Advanced Organizer: Review Component

- The review component of the advanced organizer is extremely important and allows the teacher to check students' knowledge and prepares students for success in the new lesson
  - If students have not mastered prerequisites, the teacher reteaches the knowledge, concept, or skill and does not move on to the new lesson until students are fluent with the prerequisites
  - Review is NOT a time for student practice after knowledge, concepts, or skills have been taught

Planning the Review

- The question guiding the identification of the prerequisites is: “What concepts, knowledge, or skills do students need to be successful in this lesson?”
- Once prerequisites are identified, example problems are selected
- The type of review activity is dictated by the instructional domain (concept, declarative knowledge, procedural strategy, problem solving, etc.)

Conducting the Review

- The teacher sets the tone for student success by providing clear directions that are brief, sequenced, and include visual and verbal cues
- The review follows a three-step sequence to monitor student performance:
  - Check student performance
  - Provide feedback
  - Make a data-based decision to move on to the new lesson, *or* reteach and provide more practice with the review problems (a general guideline for moving on is that 80% of the students get 80% of the review material correct)

Techniques for Maximizing Student Participation

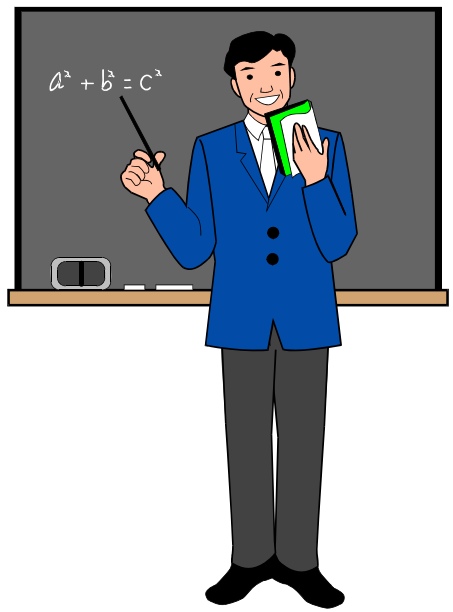
- Students tell answer or repeat procedure to a neighbor
- Student use “yes” and “no” response cards to agree or disagree with an answer given, or raise finger if they agree
- Students write answer on whiteboard and hold it up for teacher to check
- Students come up to board or overhead transparency to show how to do all or part of a procedure
- Student give thumbs-up or wink if they know the answer
- After students complete several problems at their desks, each student puts one problem on the board and explains how the problem was solved
- Students raise different answer cards when practicing concept discrimination of fact identification (e.g., coins, shapes, numbers, etc.)

State Lesson Objective with Link

- Effective teachers begin the lesson by stating what students will learn in the lesson and how this links to what is already known (prior knowledge)
- Develop relevance by helping students see *why* they are learning a new mathematical concept or skill

Providing a Demonstration

- 3 Ms of Demonstration
  - **M**odel thinking and action
  - **M**aximize student engagement
  - **M**onitor student understanding



Model Thinking and Action

- In the demonstration phase, the teacher models what students must do to complete the problem while *thinking aloud* to show thought processes
- The model includes *showing* how to solve the problem *while describing* the overt actions (e.g., “Now, I carry the tens”) and the cognitive decisions that occur in solving the problem
- Modeling is facilitated by using concise, well-organized explanations using language and visual support that the students will understand

Maximize Student Engagement

- Attention can be maintained by providing opportunities for students to be actively involved in the demonstration
- Techniques to include the students verbally include:
  - Having students read the problems or parts of the problem with the teacher
  - Directing students to repeat the new information that the teacher has just stated
  - Asking students to provide information for the problem that they already know

Monitor Student Understanding

- Again, follow the three-step monitoring sequence:
  - Check for student understanding
  - Provide feedback
  - Make a data-based decision to determine whether students understand the problems being modeled

Provide Guided Practice

- The focus of guided practice is to provide students with the opportunity to practice the new mathematics task until they are able to complete the task correctly or without teacher assistance
- The teacher provides assistance with strategic use of verbal questions and prompts (designed to prompt student recall)
- Guided practice should be briskly paced with a high frequency of questions and prompts
- Teacher varies level of support and gradually withdraws assistance, shifting more and more responsibility to the students until they are able to complete the problems independently (sometimes called *scaffolding*).

Provide Independent Practice

- Independent practice begins when students have demonstrated accuracy and the ability to complete several problems independently without teacher support

Important Functions of Independent Practice

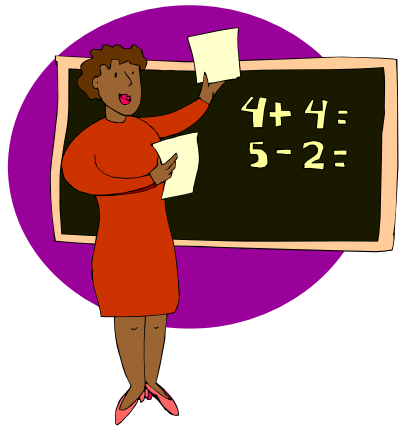
- It gives students opportunities to practice new concepts, knowledge, and skills acquired during demonstration and guided practice
- It gives students opportunities to become fluent with the newly learned material
- It provides the teacher with a means to evaluate the effectiveness of instruction
- It helps student retain what they have learned

Considerations When Providing Independent Practice

- Plan a Practice Format
  - Type of response required from student (written, verbal, physical action)
  - The nature of the task (e.g., counting objects, reading word problems, calculate using a procedural strategy)
  - The amount of time required to provide a response
- Provide Distributed Practice
  - Practice opportunities are spread out over periods of time until mastery is reached
- Monitor Student Performance

Provide Maintenance

- Refers to the student's ability to respond accurately to mathematical problems without teacher assistance
- Maintenance needs to be built in so that skills are retained
- Should consist of those skills that students have mastered previously and are not being practiced in current lessons



Monitor Student Progress Over Time

- The assessment and instructional cycle continues
  - Daily lesson assessment helps to guide planning for the next day's lesson
  - Progress monitoring measures (such as CBM) guide decision making for overall instructional planning
    - When particular students are not progressing satisfactorily
    - When instruction needs to be altered
    - When goals should be raised

Use Progress Monitoring for Data-Based Decision Instructional Decision Making

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