

Assessing Growth in Critical Reading Skills

Middle Schools Leadership Conference

Orlando, April 30, 2004

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Florida Center for Reading Research

What we heard here ...

- “In order to change things, we need to know where we are” (Phyllis Hunter, 2004)
- “We need to use more effective assessments to show the change brought about by our efforts” (Phyllis Hunter, 2004)
- “Principals must provide leadership in using assessments for screening, progress monitoring, diagnosis and outcomes” (Laura Hassler, 2004; Miranda Free, 2004)
- “Research shows that teachers did a lot of assessment but did almost NO comprehension instruction” (Paige Pullen, 2004)

What we know...

- Who to target for more intensive reading instruction
 - FCAT performance: Level 1 or 2 on CRT, less than 50th percentile on NRT
- Critical elements needed for successful reading performance
 - The “fab 5”
 - Phonemic awareness
 - Phonics
 - Fluency
 - Vocabulary
 - comprehension

What we want to know...

- How to distinguish different groups of students who failed to meet the standards
 - Current research on student profiles. “Not all poor readers are alike. How do we differentiate for instruction?” (Holly Lane, 2004)
 - A testing model that is efficient yet effective **and flexible**
 - Tests that facilitate the process
 - How to manage the data and use the data for student, school and system decisions

The FCAT

- Places special demands on fluency
 - Passage length at different levels
 - 3rd grade - 325 words
 - 7th grade - 816 words
 - 10th grade - 1008 words
- The FCAT become more and more challenging with increasing grades because of increase in percentage of items that demand relatively complex inferential and other kinds of reasoning skills.

What research tells us

- Study by Torgesen, et al (2004)
 - Identify the most important predictors of performance on reading comprehension as measured by the FCAT reading test



Variables and Tests Administered

- **Reading Fluency and Efficiency**
 - Oral Reading Fluency passages (3 types)
 - Test of Word Reading Efficiency (TOWRE)
 - Gray Oral Reading Test -4th Ed. (GORT-4)
- **Listening and Reading Comprehension**
 - FCAT passages read aloud by examiner
 - GORT-4 Comprehension

Variables and Tests Administered

■ Verbal Reasoning

- Wechsler Abbreviated Scale of Intelligence (WASI) - Vocabulary and Similarities subtests

■ Non-Verbal Reasoning

- WASI Matrix Reasoning and Block Design subtests

■ Working Memory

- Listening Span and Reading Span

Results

3rd Grade

- 4 Predictors: Fluency, language, nonverbal reasoning, memory
 - Fluency completely dominated the remaining three predictors
 - Language (verbal reasoning and comprehension) dominated nonverbal reasoning and memory
 - Nonverbal reasoning and memory were equally non dominant

Results

7th Grade

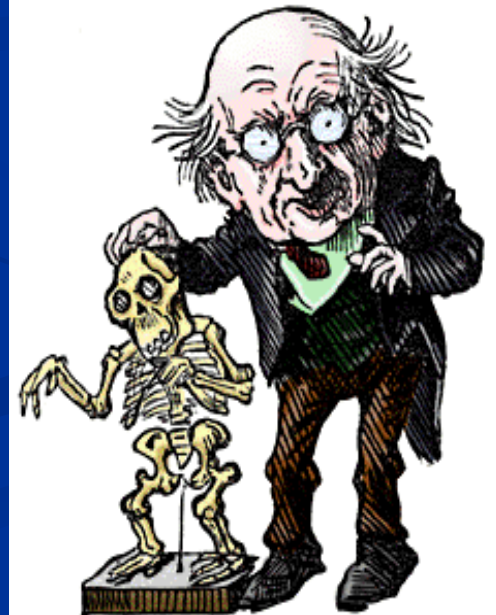
- 3 Predictors: Fluency, verbal knowledge and reasoning, memory
 - ✓ Fluency and verbal reasoning equally strong and completely dominated memory

10th Grade

- 3 Predictors: Fluency, verbal knowledge and reasoning, memory
 - ✓ Verbal reasoning dominated all, fluency dominated memory

What research tells us

- Study Valencia & Riddle-Buly (2004)
 - Understand the “garden variety” test failure - those students typically found in the regular classroom who are experiencing reading difficulty
 - Targeted word identification (decoding), meaning (comprehension and vocabulary), and fluency (rate and expression)



Tests Administered

- **Woodcock Johnson -Revised (WJ-R)**
Letter-word Identification and Word Attack subtests
- **Qualitative Reading Inventory - II (QRI-II)**
Reading Accuracy, Acceptability, Rate, Expression, Comprehension
- **Peabody Picture Vocabulary Test (PPVT-R)**
Vocabulary Meaning
- **State Fourth-Grade Passages**
Reading Accuracy, Acceptability, Rate, Expression

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Cluster Analysis

Student Profile	Word Ident.	Meaning	Fluency	Description
#1	--	--	--	Very weak in all areas - 9%
#2	++	--	++	Reads fast , accurate but no meaning - 18%
#3	-	-	++	Reads indiv. words; rate high with errors - 15%
#4	-	+	-	Labored reading for meaning - 17%
#5	+	++	-	Slow but relatively accurate - 24%
#6	+	-	-	Good decoding, slow, poor meaning - 17%

Cluster Analysis

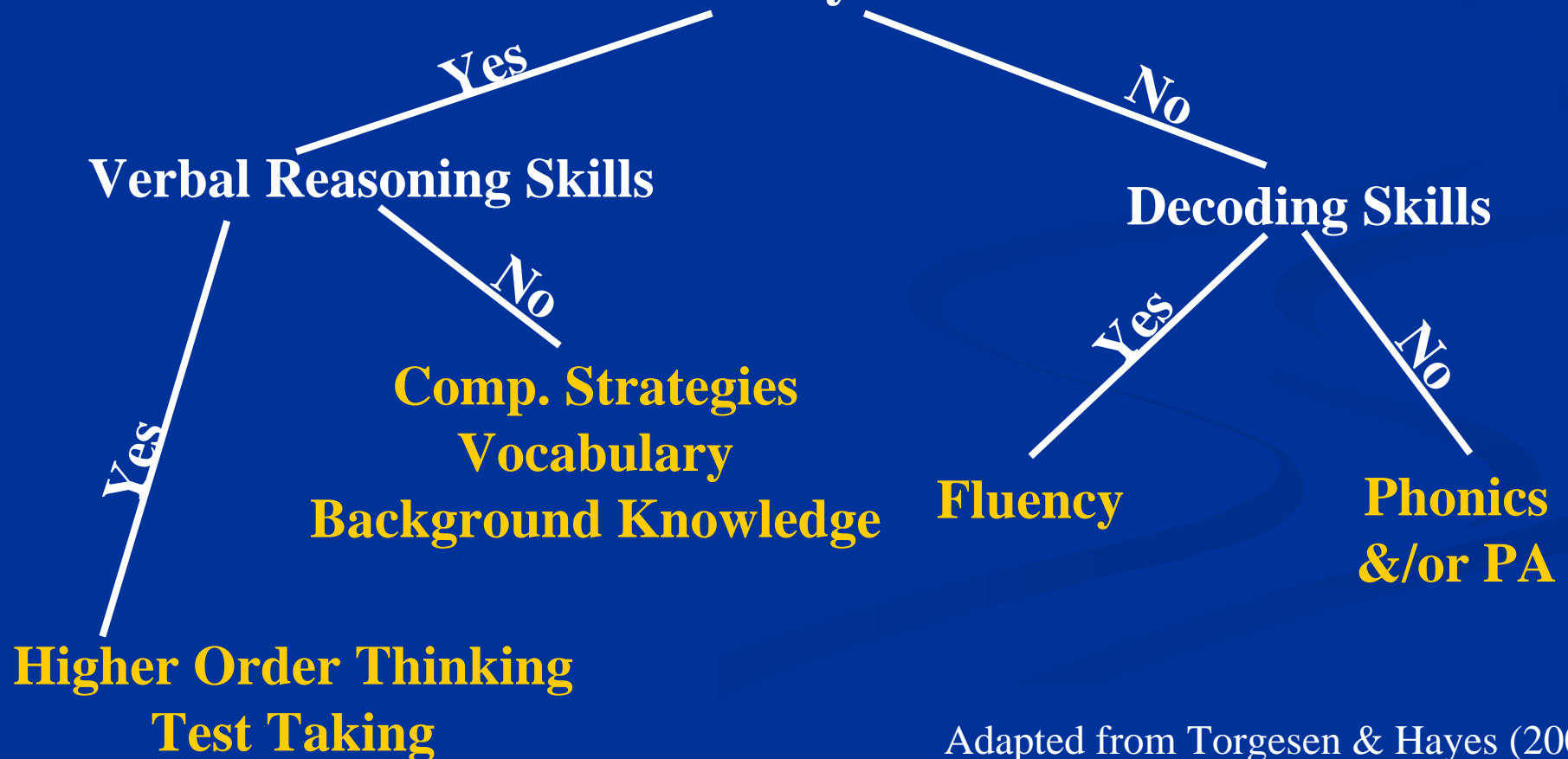
Student Profile	Word Ident.	Meaning	Fluency	Reading Strategy
#1	--	--	--	Emphasize phonics and phonemic awareness
#2	++	--	++	Slow down, attend to meaning
#3	-	-	++	Phonics and comprehension
#4	-	+	-	Decoding and Fluency
#5	+	++	-	Rereading to build fluency
#6	+	-	-	Increase reading rate and comprehension

Research indicates....

- Performance on tests of fluency and verbal knowledge/reasoning predict scores on the FCAT (Torgesen, et al)
- Younger students (5th grade) who fail state reading tests are more likely to show weaknesses in fluency and vocabulary/comprehension (Valencia and Riddle-Buly)
- It is less likely that low-performing students will be weak in all critical areas but will show profiles of strengths and weaknesses (Valencia and Riddle-Buly)

Reading Assessment Flowchart FCAT Performance 1 - 2

Word Reading
Efficiency Skills



Adapted from Torgesen & Hayes (2003)

Some Test Options

■ Sight Word Efficiency

- TOWRE
- CBA Sight Words
- Oral Reading Fluency

■ Verbal Reasoning

- SDRT* GRADE*
- GORT-4 CELF-4
- OWLS WJ-III
- TOLD-3 QRI-3
- PPVT-3 WASI

*Group Administered



Some Test Options

■ Phonemic Decoding

- TOWRE
- WRMT
- QRI-3
- WJ-III Word Attack and Letter-Word Identification

■ Fluency

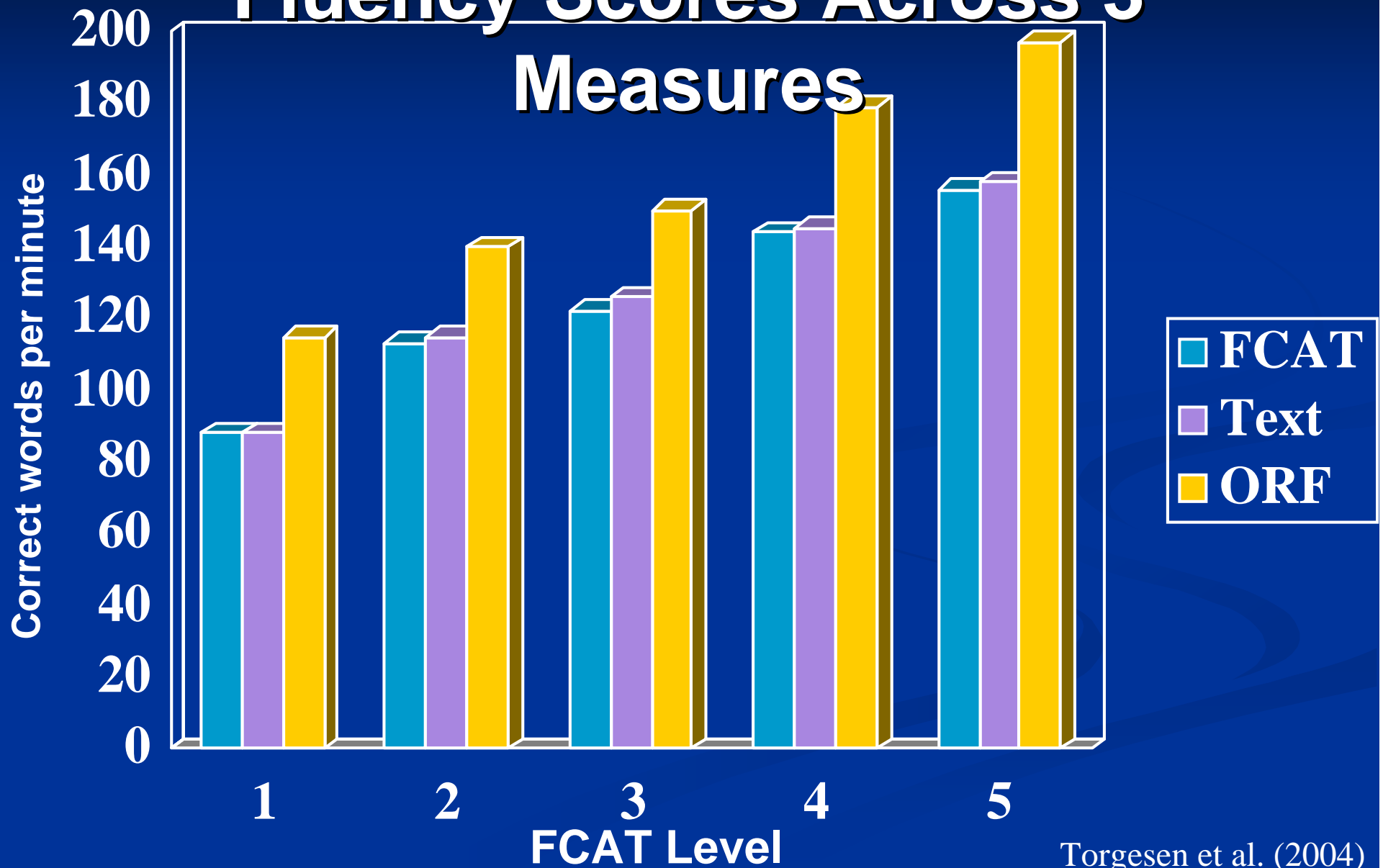
- CBM Fluency
- Practice FCAT Passages
- Grade Level Text Passages
- GORT-IV



Oral Reading Fluency Options

- FCAT Practice Passages
- Grade-level Text
- Curriculum-Based Measurement (CBM)
Oral Reading Fluency Passages

7th Grade Average Reading Fluency Scores Across 3 Measures



Torgesen et al. (2004)

Data Analysis

- Set up a system that
 - Selects students at Level 1 or 2 of FCAT (Screening)
 - Sets goals (short and long term if possible) and calculates trend lines (where student is headed)
 - Profiles students on word recognition efficiency
 - Profiles student data on measures of verbal reasoning and fluency
 - Monitors fluency with one or more measures (progress monitoring)
 - Accepts group administered measures of comprehension (Gates-MacGinitie, GRADE, QRI, etc. (outcome measures))

Data Analysis

- Set up a system that
 - Indicates where interventions are implemented and changed
 - Permits aggregating and disaggregating of data
 - Provides immediate feedback to teachers and administrators

Data Analysis Resources

- www.interventioncentral.org (charting student progress over time in multiple subject areas: FREE)
- www.edformation.com (6 - 8th grade reading fluency, math, spelling, writing: \$4 - 7.00 per student)
- www.dibels.uoregon.edu (6th grade reading fluency: \$1.00 per student)

ChartDog Manual

[Select Manual Section]

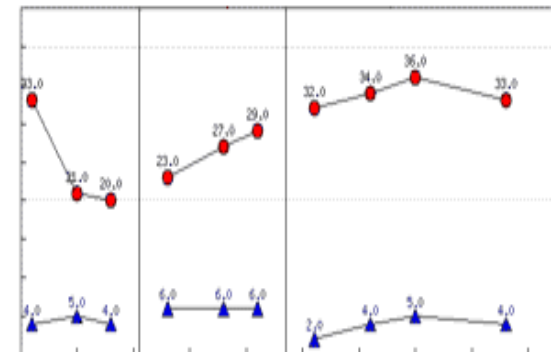
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Section 1: An Introduction to ChartDog

ChartDog is a web-based application that allows you to create progress-monitoring graphs. The application follows common conventions for graphing single-subject research data (Hayes, 1981; Kazdin, 1982). With ChartDog, you can:

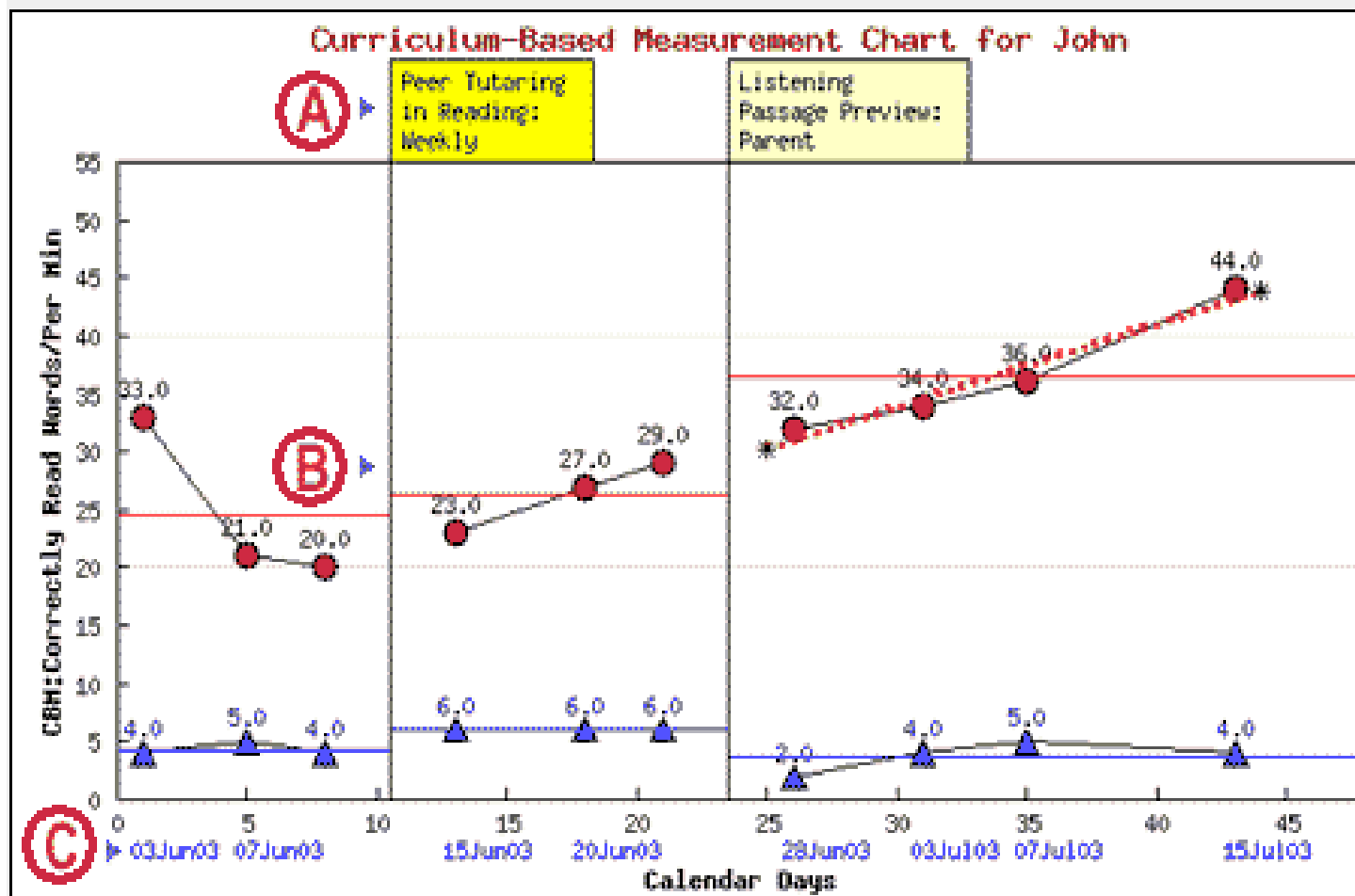
- enter up to two sets of data to be graphed.
- group data series into discrete phases on the time-series graph.
- attach custom labels to each graph phase.
- create customized labels for the X- and Y-axes (as well as a customized title for the chart).
- compute trend (regression) lines, means, and percentage of non-overlapping data-points for each data phase.



Because ChartDog graphs are dynamically generated images, you can print them off, save them to your computer hard-drive, email them as attachments, etc.

www.interventioncentral.org

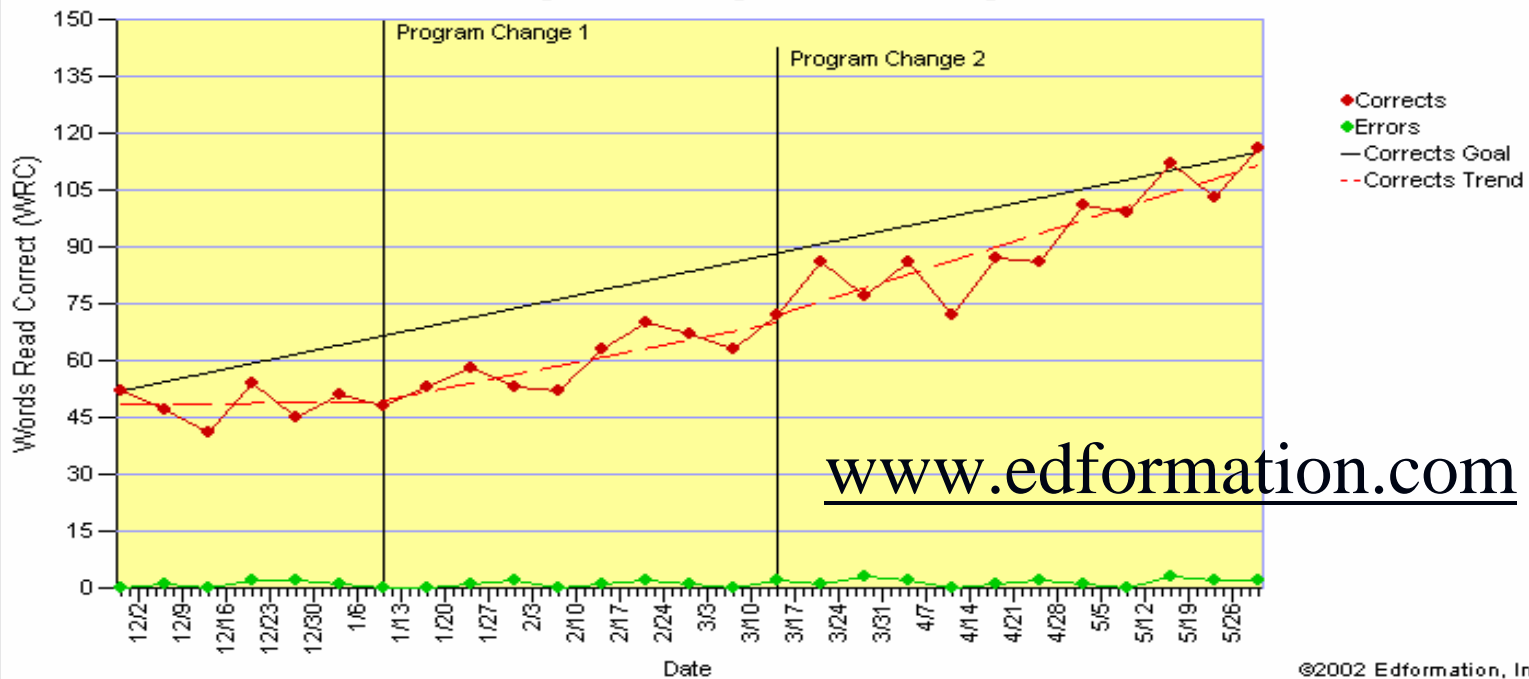
Figure 6: Example of Labeled Graph



www.interventioncentral.org

Progress Monitoring Improvement Report
from 11/28/2002 thru 05/29/2003

Hartford School District - Wilson Elementary
Melissa Smart (Grade 3)
Grade 3 : Reading - Standard Progress Monitor Passages



www.edformation.com

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Show: No Trends Goal Trends Note Trends
 Goal Program Notes Errors

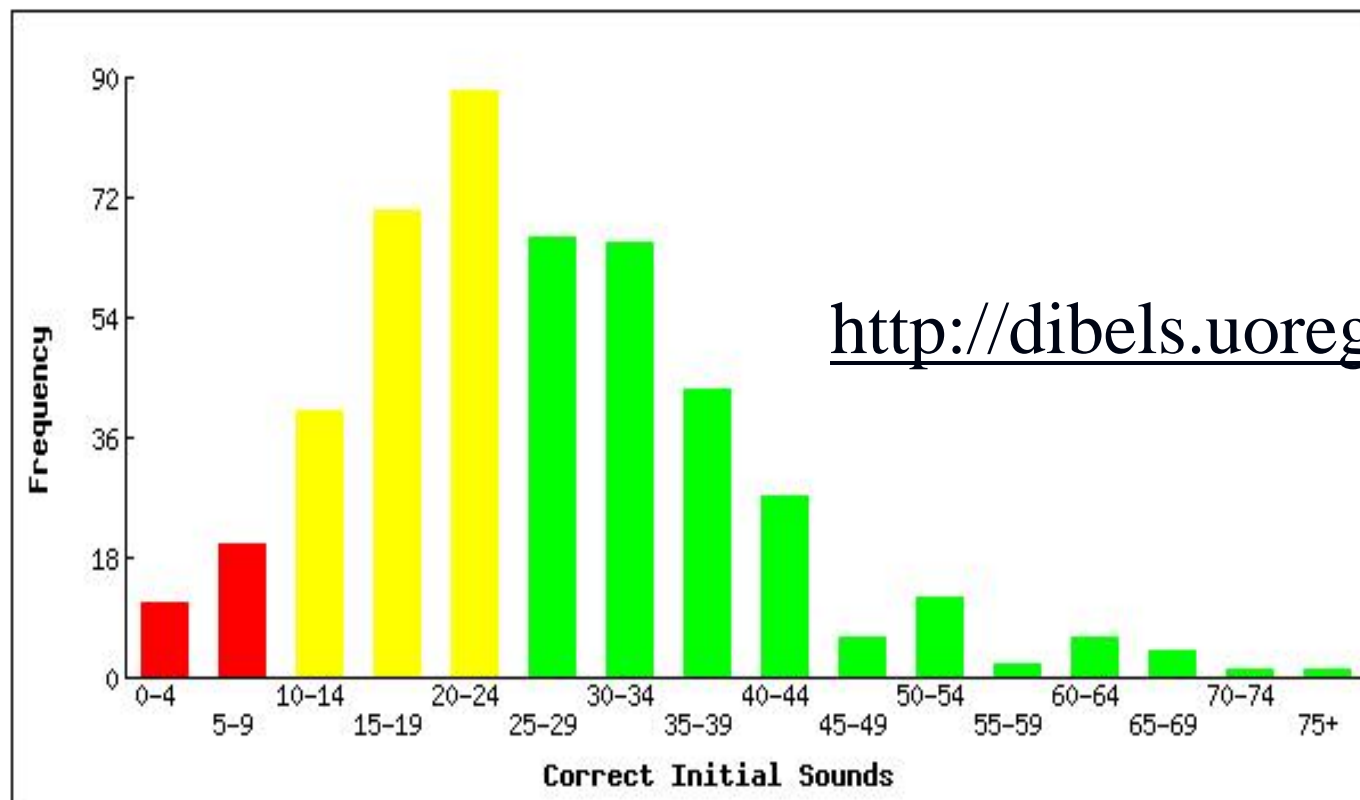
Goal Statement

In 26.0 weeks, Melissa Smart will achieve 115 Words Read Correct with 0 Errors from grade 3 Reading - Standard Progress Monitor Passages. The rate of improvement should be 2.4 Words Read Correct per week. The current average rate of improvement is 3.6 Words Read Correct per week.

**Dynamic Indicators of Basic Early Literacy Skills, University of Oregon
Histogram**

District: **Test District** Scope: **District-wide** Grade: **Kindergarten**
Class: **All** Assessment: **January** Academic Year: **2001-2002**

Initial Sound Fluency



<http://dibels.uoregon.edu>

Dynamic Indicators of Basic Early Literacy Skills, University of Oregon Scatter Plot

District: **Test District**

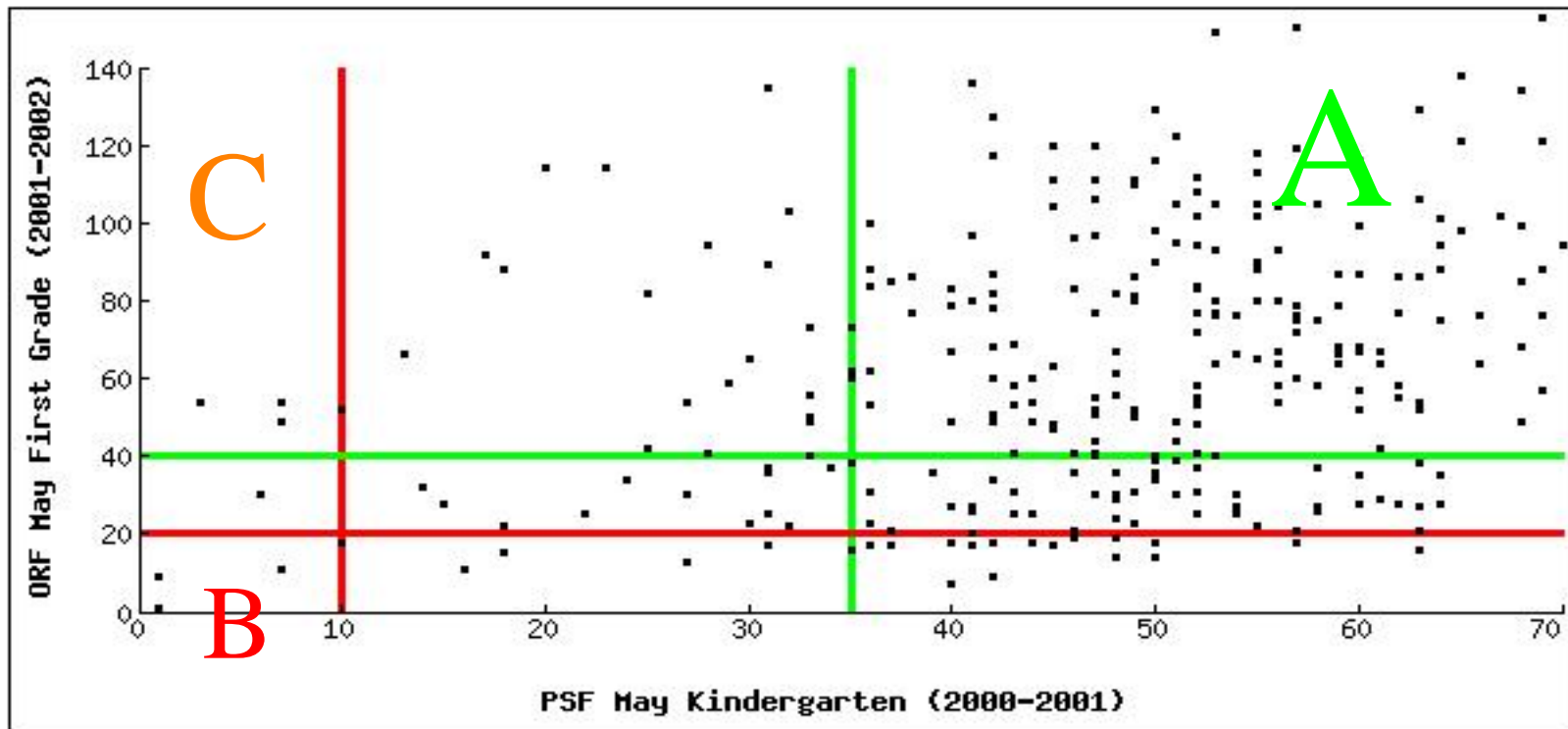
Scope: **District-wide**

Grade: **Kindergarten**

Class: **All**

Assessment: **May**

Academic Year: **2000-2001**



Odds of being Low Risk with ORF in May of First Grade when Established with PSF in May of Kindergarten is 194 out of 261, or 74%.

Odds of being Low Risk with ORF in May of First Grade when Deficit with PSF in May of Kindergarten is 3 out of 7, or 42%.

<http://dibels.uoregon.edu>

Other Resources

- Project CENTRAL - projcentral@mail.ucf.edu
 - Curriculum-based measurement training in reading fluency, math, spelling, writing; survey level assessment
- Online course - Applied Data Analysis for School Leaders (contact Laura Hassler, lhassler@mail.fsu.edu)
- Florida Center for Reading Research - Valid and reliable reading diagnostic measures www.fcrr.org/assessment

Using Data to Inform Instruction

- Establish a process for routinely analyzing data at the student, classroom, grade level, school, and district levels
- Show how data drives decisions
- Share innovative practices with others
- And if you think this is tough,

Thank you!

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