## MTSS and Core Instruction in Reading

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## Reading Instruction in Elementary School

## Two hours each day

## Explicit

 instruction
## Free-choice

 reading
## Writing

## Hattie - Visible Learning



| KEY |  |
| :--- | :---: |
| Standard error | 0.221 (High) |
| Rank | 22nd |
| Number of meta-analyses | 14 |
| Number of studies | 425 |
| Number of effects | 5,968 |
| Number of people (5) | 12,124 |



## Teacher Roles

- Activator

Drill \& practice
Feedback
Meta-cognition
Direct Instruction
Mastery Learning
Formative Assessment
Total

- Facilitator

| $d=0.99$ | Simulation/game | $d=0.32$ |
| :--- | :--- | :--- |
| $d=0.72$ | Inquiry-based | $d=0.31$ |
| $d=0.67$ | Class size | $d=0.21$ |
| $d=0.59$ | Problem-based | $d=0.15$ |
| $d=0.57$ | Inductive teach | $d=0.06$ |
| $d=0.46$ |  |  |
| $d=0.60$ | Total | $d=0.17$ |

## Interventions for Children with Learning and Behavioral Disabilities

Reading comprehension
Applied behavior analysis
Direct instruction
Psycholinguistic training
Social skills training
Modality instruction
Perceptual training
1.13
0.93
0.84
0.39
0.21
0.15
0.08

Kavale \& Forness, 2000

## National Survey of Special Education Teachers

## Percent used at least weekly

Applied behavior analysis 70.1\%
Direct instruction 89.6\%
Psycholinguistic training 40.2\%
Social skills training
Modality instruction
Perceptual training
75.8\%
79.9\%
31.6\%

Burns \& Ysselyke, 2009

Reflection break 1 - What is one thing that I do that activates student learning?

## Effective PLCs Matter

On student achievement Beyond school variables Beyond starting scores

JOURNAL OF EDUCATIONAL AND PSYCHOLOGICAL CONSULTATION https $/ / /$ doi.org/10.1080/10474412.2017.1385396

R
Routledge
Taylor \& Francis Grou
(1) Check for updates

Factors of Professional Learning Community Implementation and Effect on Student Achievement

Matthew K. Burns, Meredith R. Naughton, June L. Preast, Ze Wang, Robert L. Gordon, Vicki Robb, and Michelle L. Smith

University of Missouri

## Components of Effective PLCs (according to research)

## Collaborative Leadership Process Data-Driven Systems for Learning

Learning Community Culture (mission, vision, commitments, smart goals)
Building Leadership Team (shared leadership, meeting conditions, communication and feedback, trust)
Administrative Leadership (model, Continuous Improvement (induction, communication, active involvement)

Student Learning (unwrapped learning objectives, instructional map)
Assessment (matched to purpose, feedback to students)

Systems of Intervention (focus on results, collectively responsible, tier 1, tier 2, tier 3, protocols, school-wide implementation)

| PLC Meetings: | Agenda |
| :---: | :---: |
| PLC: $1^{\text {st }}$ weekly meeting of the month (Content Focus) | - Grade level teams and coaches with additional personnel as appropriate <br> - School-site established PLC focus on various topics (e.g., math, STEM, behavior, environment, or other school topical initiatives) |
| PLC: $2^{\text {nd }}$ weekly meeting of the month MTSS (Core Instruction Literacy Focus) | - Grade level teams and coaches with additional personnel as appropriate <br> - Examine various formal and informal data to drive core instruction <br> - Agenda will include embedded professional development on topics that address opportunities and challenges for core instruction |
| PLC: $3^{\text {rd }}$ weekly meeting of the month (Content Focus) | - Grade level teams and coaches with additional personnel as appropriate <br> - School-site established PLC focus with schools studying varied topics |
| PLC: $4^{\text {th }}$ weekly meeting of the month MTSS (Data Analysis) | - Grade level teams and coaches with additional personnel as appropriate (data management team) <br> - Analyze screening/benchmark data <br> - Analyze progress monitoring data <br> - Discuss, monitor and adjust tiered interventions. |

# Reflection break 2 - What characteristics of data-driven systems of learning do our PLCs exhibit? 



MAP Criterion $=212$

CBM-ORF Criterion $=141$

| Student | MAP | CBM-ORF |
| ---: | :---: | :---: |
| 601 | 225 | 209 |
| 602 | 210 | 113 |
| 603 | 210 | 135 |
| 604 | 196 | 138 |
| 605 | 219 | 145 |
| 606 | 211 | 75 |
| 607 | 220 | 128 |
| 608 | 206 | 132 |
| 609 | 204 | 126 |
| 610 | 221 | 214 |
| 611 | 183 | 88 |
| 612 | 209 | 137 |
| 613 | 211 | 158 |
| 615 | 210 | 122 |
| 616 | 222 | 133 |
| 617 | 224 | 158 |
| 618 | 211 | 85 |
| 619 | 208 | 140 |
| 620 | 210 | 137 |
| 621 | 214 | 125 |
| 622 | 204 | 101 |
| 623 | 215 | 122 |
| 624 | 227 | 172 |
| Median | 211 | 133 |
|  |  |  |

## What is the Class Median?

- Median: the middle value in a list of numbers when the values are arranged from lowest to highest.
- Finding the class median:
- Order student scores from the lowest to highest value.
- The score in the middle of the list is the median.
- If there is an even number of scores, take the average of the middle two scores.


## What is the Class Median?

| MODEL | Winter | hmark | 101 |  | inter Be | mark | 101 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Student | Grade | ORF <br> WRC | Errors | Student | Grade | ORF |  |
| A | 3 | 21 | 8 |  |  | WRC | Errors |
| B | 3 | 18 | 6 | B | 3 | 18 | 6 |
| C | 3 | 87 | 1 | A | 3 | 21 | 8 |
| D | 3 | 110 | 0 | E | 3 | 46 | 6 |
| E | 3 | 46 | 6 | N | 3 | 49 | 6 |
| F | 3 | 92 | 1 | K | 3 | 50 | 8 |
| G | 3 | 89 | 3 | R | 3 | 76 | 3 |
| H | 3 | 98 | 1 | P | 3 | 86 | 6 |
| I | 3 | 119 | 2 | C | 3 | 87 | 1 |
| J | 3 | 96 | 2 | G | 3 | 89 | 3 |
| K | 3 | 50 | 8 | Q | 3 | 89) | 2 |
| L | 3 | 122 | 2 | F | 3 | 92 | 1 |
| M | 3 | 97 | 1 | U | 3 | 94 | 2 |
| N | 3 | 49 | 6 | J | 3 | 96 | 2 |
| 0 | 3 | 105 | 0 | M | 3 | 97 | 1 |
| P | 3 | 86 | 6 | H | 3 | 98 | 1 |
| Q | 3 | 89 | 2 | O | 3 | 105 | 0 |
| R | 3 | 76 | 3 | D | 3 | 110 | 0 |
| S | 3 | 112 | 3 | S | 3 | 112 | 3 |
| T | 3 | 141 | 1 | I | 3 | 119 | 2 |
| U | 3 | 94 | 2 | L | 3 | 122 | 2 |
| Class Median |  |  |  | T | 3 | 141 | 1 |
|  |  |  |  | Class Median |  | 92 |  |

## What is the Class Median?

 MODEL|  | Spring Benchmark |  | 75 |
| :---: | :---: | :---: | :---: |
| Student | Grade | ORF <br> WRC | Errors |
| A |  | 64 | 5 |
| B | 2 | 22 | 5 |
| C | 2 | 77 | 0 |
| D | 2 | 68 | 4 |
| E | 2 | 21 | 1 |
| F | 2 | 18 | 2 |
| G | 2 | 60 | 0 |
| H | 2 | 70 | 2 |
| I | 2 | 84 | 0 |
| J | 2 | 77 | 0 |
| K | 2 | 26 | 4 |
| L | 2 | 89 | 1 |
| M | 2 | 54 | 0 |
| N | 2 | 46 | 8 |
| O | 2 | 70 | 3 |
| P | 2 | 75 | 0 |
| Q | 2 | 32 | 6 |
| R | 2 | 35 | 2 |
| S | 2 | 51 | 1 |
| T | 2 | 71 | 1 |
| Class Median |  |  |  |


| SpringBenchmark |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stude nt | Grade | ORF |  |  |
|  |  | WRC | $\begin{gathered} \text { Erro } \\ \text { rs } \end{gathered}$ |  |
| F | 2 | 18 | 2 | 0 |
| E | 2 | 21 | 1 | 0 |
| B | 2 | 22 | 5 | 0 |
| K | 2 | 26 | 4 | 0 |
| Q | 2 | 32 | 6 | 0 |
| R | 2 | 35 | 2 | 0 |
| N | 2 | 46 | 8 | 1 |
| S | 2 | 51 | 1 | 1 |
| M | 2 | 54 | 0 | 1 |
| G | 2 | $60$ | 0 | 1 |
| A | 2 | 64 | 5 | 2 |
| D | 2 | $68$ | 4 | 2 |
| H | 2 | 70 | 2 | 2 |
| 0 | 2 | 70 | 3 | 3 |
| T | 2 | 71 | 1 | 4 |
| P | 2 | 75 | 0 | 4 |
| C | 2 | 77 | 0 | 5 |
| $J$ | 2 | 77 | 0 | 5 |
| I | 2 | 84 | 0 | 6 |
| L | 2 | 89 | 1 | 8 |
| Class Median |  | 62 |  |  |




| Spring Benchmark |  | 90 |  |
| :---: | :---: | :---: | :---: |
|  | Student | Grade | WRC |
| A | 2 | 31 | Errors |
| B | 2 | 47 | 5 |
| C | 2 | 47 | 4 |
| D | 2 | 48 | 4 |
| E | 2 | 51 | 2 |
| G | 2 | 54 | 3 |
| H | 2 | 55 | 4 |
| I | 2 | 58 | 7 |
| J | 2 | 61 | 7 |
| K | 2 | 61 | 1 |
| L | 2 | 65 | 0 |
| M | 2 | 71 | 1 |
| N | 2 | 82 | 2 |
| O | 2 | 84 | 6 |
| P | 2 | 86 | 0 |
| Q | 2 | 95 | 0 |
| R | 2 | 98 | 0 |
| S | 2 | 108 | 1 |
| T | 2 | 121 | 2 |
| U | 2 | 141 | 3 |
| Clastner Median |  |  |  |

## Partner Reading Paragraph Shrinking

1. Stronger reader 1. For 5 minutes the reads aloud for 5 minutes stronger read continues reading new text in the story,

## Procedure

2. The weaker reader reads aloud the SAME text for 5 minutes stopping after each paragraph to summarize
3. For 5 minutes the weaker reader continues with the new text, stopping after each paragraph to summarize

## Paragraph Shrinking



NAME THE MOST IMPORTANT WHO OR WHAT.


TELL THE MOST IMPORTANT THING
ABOUT THE WHO OR
WHAT.


SAY THE MAIN IDEA IN 10 WORDS OR LESS.

## How to Correct

Stop.

That word is $\qquad$ .
What word? $\qquad$ .

Good.

Go back and read that line again.

## Timeline



What we found: $3^{\text {rd }}$ grade Partner Reading data

## Third Grade

## Third Grade Benchmark <br> 91 Words Read Correctly (WRC)



Class 1
81
104
11.5

Class 2
87
115
14

|  | WRC | WRC after Intervention |
| :---: | :---: | :---: |
| Student 1 | 48 | 92 |
| Student 2 | 122 | 142 |
| Student 3 | 126 | 147 |
| Student 4 | 82 | 113 |
| Student 5 | 102 | 117 |
| Student 6 | 77 | 97 |
| Student 7 | 51 | 70 |
| Student 8 | 84 | 95 |
| Student 9 | 80 | 82 |
| Student 10 | 102 | 127 |
| Student 11 | 83 | 106 |
| Student 12 | 38 | 47 |
| Student 13 | 104 | 115 |
| Student 14 | 152 | 161 |
| Student 15 | 143 | 158 |
| Student 16 | 115 | 125 |
| Student 17 | 142 | 160 |
| Student 18 | 114 | 127 |
| Student 19 | 13 | 40 |
| Student 20 | 75 | 92 |
| Student 21 | 141 | 136 |
| Student 22 | 87 | 105 |
| Student 23 | 49 | 47 |
| Median | 87 | 113 |

## What we found: $3^{\text {rd }}$ grade Partner Reading data



## Growth from Winter to Spring Class-Wide Interventions

 10 Classrooms K-3

Growth from Winter To Spring NO Class-Wide Interventions 11 Classrooms K-3


## Maki et al. (2020)



Fig. 1 Curriculum-based measure for reading median scores for treatment and control classrooms


## Science Project

- Approximately $1404^{\text {th }}$ and $5^{\text {th }}$ graders
- Science content
- Readworks.org
- Science MAZE
- 2 weeks

MAZE Growth $4^{\text {th }}$ Grade


MAZE Growth $5^{\text {th }}$ Grade





Reflection break 3 - What barriers would keep you from attempting classwide intervention in your classroom?


## Do Reading Groups Work?

- Allow for differentiation
- Previously based on student aptitude (remember Red Robin?)
- Within-class grouping led to positive effects for different ability groups (Lou, 2013).


## BUT

-Level $=$ Skill
-Focus on skill

## Problem 1 with level

- Assessment of level are inaccurate
- F\&P BAS led to 54\% correct decisions


Problem 2 - level assessments underestimate good readers and overestimate low readers

| Group | Frustration $n$ | Instructional $n$ <br> $(\%)$ | Independent $n$ <br> $(\%)$ |
| :--- | :---: | :---: | :---: |
| Low $=0 R F \leq 25^{\text {th }}$ Percentile | 7 | 5 | 0 |
| Middle $=26^{\text {th }}$ to $75^{\text {th }}$ Percentile | 2 | $(41.7 \%)$ | $(0.0 \%)$ |
| High $=0 R F \geq 76^{\text {th }}$ Percentile | $(9.5 \%)$ | $(19.0 \%)$ | $(71.4 \%)$ |

Problem 3 - there are considerable skill differences among kids at the same level

Student MAP RIT MAP \%ile F\&P ORF Accuracy

| 1 | 149 | 1 | G | 30 | 77\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 158 | 3 | G | 37 | 88\% |
| 3 | 159 | 4 | G | 30 | 94\% |
| 4 | 170 | 27 | G | 32 | 87\% |
| 5 | 166 | 17 | G | 58 | 89\% |
| 6 | 188 | 73 | G | 80 | 98\% |
| 7 | 157 | 1 | G | 26 | 93\% |
| 8 | 149 | 1 | G | 27 | 84\% |
| 9 | 160 | 6 | G | 36 | 86\% |
| 10 | 154 | 1 | G | 30 | 77\% |
| 11 | 160 | 6 | G | 31 | 82\% |
| 12 | 166 | 17 | G | 44 | 90\% |
| 13 | 163 | 11 | G | 47 | 90\% |
| 14 | 161 | 8 | G | 61 | 95\% |
| 15 | 167 | 19 | G | 70 | 100\% |
| 16 | 155 | 1 | G | 17 | 77\% |



## Purposes of Assessment

Screening: Which of my students are not meeting grade level expectations given Universal Instruction? (e.g., Star Reading, CBM-R)

Diagnostic: What are the specific needs of students who struggle with reading or math? (e.g., measures of skills)

Monitoring Progress: What does the student's growth look like? (CBM)

## Reflection break 4 - What classroom assessments do I use that measure more than level?

## Targeting Small-Group Instruction



## LANGUAGE COMPREHENSION

## BACKGROUND KNOWLEDGE

 (facts, concepts, etc.)VOCABULARY
(breadth, precision, links, etc.)
LANGUAGE STRUCTURES (syntax, semantics, etc.)

VERBAL REASONING (inference, metaphor, etc.)

LITERACY KNOWLEDGE (print concepts, genres, etc.)

## WORD RECOGNITION

PHONOLOGICAL AWARENESS (syllables, phonemes, etc.)
DECODING (alphabetic principle, spelling-sound correspondences)

SIGHT RECOGNITION (of familiar words)


Fluent execution and coordination of word recognition and text comprehension.


## Purposes of Assessment

Screening: Which of my students are not meeting grade level expectations given Universal Instruction? (e.g., Star Reading, CBM-R)

Diagnostic: What are the specific needs of students who struggle with reading or math? (e.g., measures of skills)

Monitoring Progress: What does the student's growth look like? (CBM)


Accuracy is Key!
-Less than $93 \%$ of words read correctly - not breaking the code



| Student ID | MAP | CBM Fall | Errors | Accuracy \% |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| 611 | 183 | 88 | 4 | 95.7 |
| 604 | 196 | 138 | 0 | 100 |
|  | Student Number 620 |  |  |  |
| 609 | 204 | 126 | 2 | 98.4 |
|  |  |  |  |  |
| 622 | 204 | 101 | 2 | 98.1 |
| 608 | 206 | 132 | 2 | 98.5 |
| Low Comp (MAP) |  |  |  |  |
| 619 | 208 | 140 | 0 | 100 |

Reflection break 5 - What focus does student 608 need? How about 618?

## What About Phonemic Awareness?

- Immediate Effect $=0.53$
- Follow up 0.45 to 0.23
- Number of Skills
- One = 0.71
- Two = 0.79
- Three or More 0.27
- Letters
- Includes = 0.67
- Does not include $=0.38$
- Grade
- Preschool = 1.25
- Kindergarten $=0.48$
- First $=0.49$


## PA and Struggling Readers

- 123 struggling readers (as measured by Star-Reading)

Average CTOPP PA Composite Score by Grade


## Relationship Between DIBELS Composite and CTOPP Score

| Grade | N | Correlation | Number of <br> Students Low PA |
| :--- | :---: | :---: | :---: |
| Kindergarten | 28 | $.35^{*}$ | $20(70 \%)$ |
| First Grade | 26 | .19 | $10(38 \%)$ |
| Second Grade | 32 | .27 | $7(21 \%)$ |
| Third Grade | 37 | .02 | $5(14 \%)$ |

## Average CTOPP PA Subtest Score by Grade



```
Pl is Sound Matching for K and 1 't
```

Regression of Oral Reading Fluency on Phonemic Awareness (as Measured by Comprehensive Test of Phonological Processing Second Edition) and Reading Decoding (as Measured by Nonsense Word Fluency) with Decoding in Model 2 with Students in Second and Third Grades $(n=69)$.


Analysis to Action
Meeting Date: $1 / 12 / 14$ Teacher Name: $\qquad$ Benchmark
Itther Benchmark Data Worksheet $2^{\text {nd }} 6^{\text {th }}$ grade Assessment Analyzed: $\qquad$ ORE Class Wide Median: $\qquad$ $93.5 / 2$

$\qquad$ WINTER: 9/SPRING: $\qquad$

## Repeated Readings

- One of the oldest and most well-researched interventions
- High OTR
- Generalizes to passage and similar ones


## Repeated Reading

Objective: To increase fluent reading on passages for students who - read with high accuracy

- show benefit from repeated practice on the same passage

Materials: 2 copies each of texts that the student can read with at least $95 \%$ accuracy Stop-watch
Pencil/pen for teacher to mark errors


## Sequence:

1. Teacher explains that students will be reading a passage multiple times to work on increasing fluency (fluency is rate and accuracy and expression - not just speed)
2. Teacher gives copies of passages to student
3. (Optional Step) Student whisper reads passage to him/herself while tracking with his/her finger to figure out unknown words. Students may ask about any unknown words.
4. Teacher explains that for the first reading out-loud, the student will read for 1 minute.
5. Teacher says "Begin" (not "Start") and starts stop-watch.
6. Student reads passage out-loud.
7. Teacher marks errors and monitors stopwatch. At one minute, teacher says "Stop" and marks the last word read by the student.
8. Teacher records number of correct words per minute and graphs results, showing the graph to the student.
9. Teacher provides standard error correction for each word the student read in error. ("That word is $\qquad$ What word?" The student repeats the word. Teacher says, "Yes. That word is $\qquad$ ." Student goes back to the beginning of the sentence to begin again.)
10. Repeat steps 5-9 at least two more times for a minimum of 3 timed readings (student reads, teacher times, words read correctly are recorded, and errors are corrected). Additional repetitions may be completed if student's fluency continues to improve through these readings.

## Strategies

| What was Taught | Materials | How it was Taught |
| :--- | :--- | :--- |
| Reciprocal Teaching <br> (Palinscar\& Brown, 1984) | $4^{\text {th }}$ grade <br> passages and <br> questions | Each individual strategy is <br> taught by: |
| -Activate Prior knowledge | Modeling |  |
| -Predict |  | Working with the student |
| -Summarize |  | Having the student work <br> independently |
| -Generate Questions |  |  |
| •Clarify |  |  |



## Fab Four Bookmark

## Predict

Use clues from the text or illustrations to predict what will happen next.
I thinkk...because...
I'll bet...because...
I suppose...because...
I think I will learn...because...

## ?? Question

Ask questions as you read. Some are answered in the book, and others are inferred.

I wonder....
Who? What? When? Where? Why? How? Why do you think?

## Clarify

How can you figure out tricky or hard words and ideas?
I didn't get the [word, part, idea] so I:

- Reread
- Ask if it makes sense
- Read on
- Talk to a friend
- Sound words out


## Summarize

Using your own words, tell the main ideas from the text in order.
$\begin{array}{ll}\text { This text is about.... } & \text { Next,.... } \\ \text { This part is about.... } & \text { Then,... } \\ \text { First, } & \text { Finally,.... }\end{array}$
First,.... Finally,....

## Fab Four Bookmark

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## Summarize

Using your own words, tell the main ideas from the text in order.

| This text is about..... | Next,.... |
| :--- | :--- |
| This part is about.... | Then,.... |
| First,.... | Finally,.... |

## Predict

1. Look at the main title
2. Scan the page to look at major headings
3. Look at any illustrations (e.g., maps, captions, tables)
4. Predict what the story is about
5. Write predictions down and read

## Summarize

1. Read the passage
2. Write one or two sentences that sum it up
3. Two common errors

- Providing too much detail
- Only referencing a section of the passage

4. Provide feedback with questions

- Does your summary cover the whole story, or just a part of it?
- If I asked you to tell me what the story was about using only 2 sentences, what would you say?").


## Generate Questions

1. Create a list of main ideas
2. Write down a question that the main idea will answer.

- "Who", "What", "Where, "When", "Why" and "How."

3. Look at the summary you just wrote, does that answer your questions?

## Clarifying

1. Look for unknown words or unclear sentences
2. Use the surrounding text or a dictionary to figure out the meaning
3. Replace the word in the text and read the sentence aloud
4. Ask prompting questions (e.g., "Does that make sense to you?")


