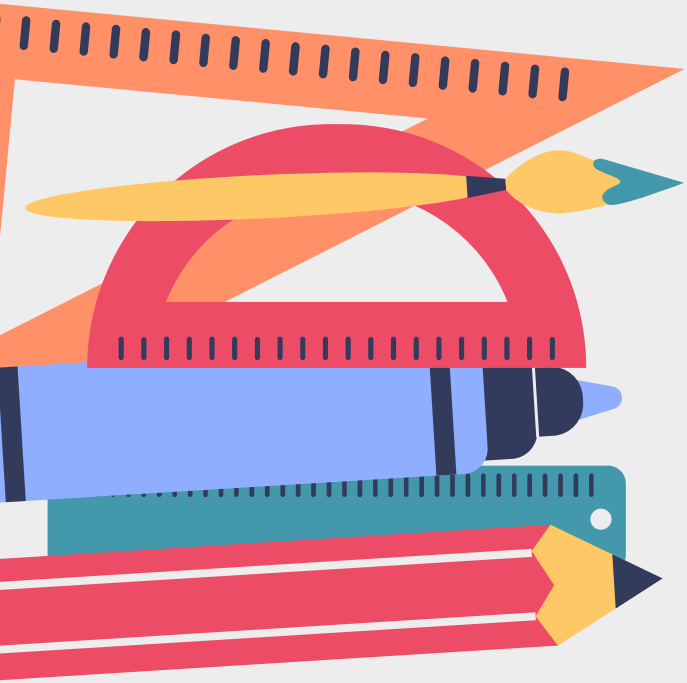

Reading, Spelling, Math, Oh My: Academic Interventions to Address Students' Needs

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THE UNIVERSITY OF SOUTHERN MISSISSIPPI

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School Psychology Doctoral Program

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THE UNIVERSITY OF SOUTHERN MISSISSIPPI

We want to get to know you!

Overview

- Purpose & RTI
- Reading Interventions
- Writing Interventions
- Math Interventions

01

Purpose & RTI

Purpose

INFORM you.

SUPPORT you.

TEACH you.

Impact of COVID-19 on Students

Loss of instruction time

Increase of opportunity gap

Math proficiency outcomes impacted

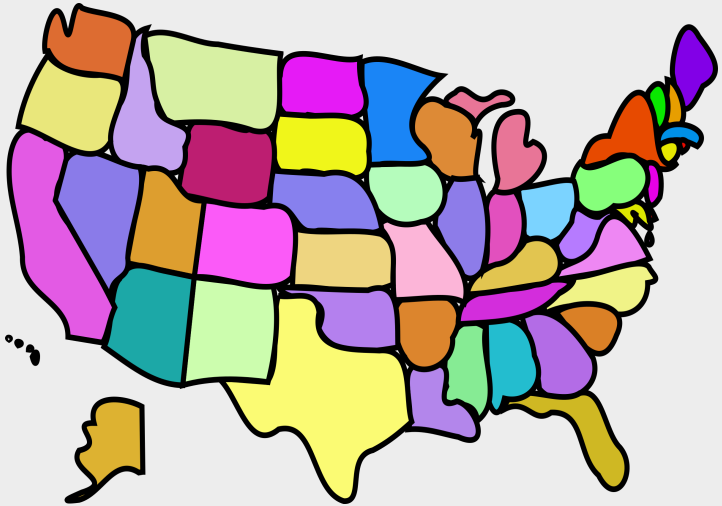
Nationwide Reading

Reading

- 65% of 4th grade at proficient level
- 66% of 8th grade at proficient level

Math

- 9% of 4th grade met advanced
- 69% of 8th grade at/above NAEP basic lower
- 60% of 12th grade at/above NAEP basic



Mississippi Statewide

As of 2019, in grades 4th/5th,

- 36% of students scored Proficient/Advanced in Math
-
- 35% of students scored Proficient/Advanced in English

Brain Break!

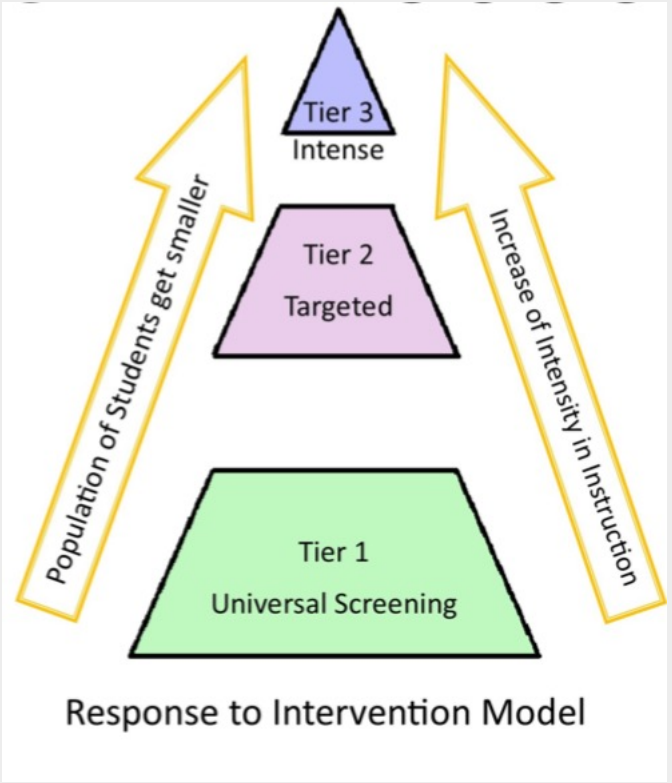
Response to Intervention (RTI)

“RTI is a multi-tier approach to the early identification and support of students with academic and behavior needs. RTI process begins with high quality instruction and universal screening of all children. Children that need additional supports are identified. Then, these children begin receiving intensified services to accelerate their learning.”

(RTI Action Network, n.a.)

RTI Tier Levels

- **Tier 1:** High Quality Classroom Instruction, Screening, and Group Interventions



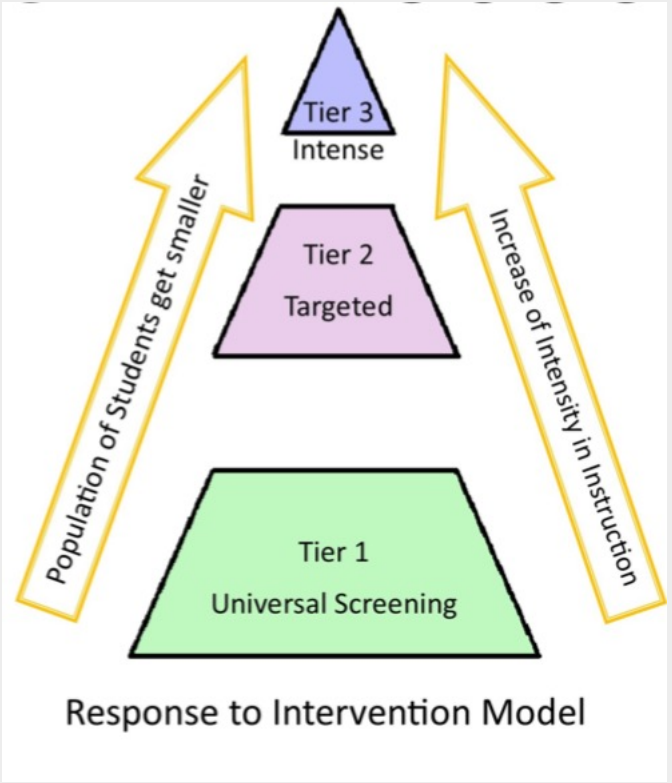
Examples of Universal Screeners (Tier 1)

- Curriculum Based Measurements (CBMs)
- Dynamic Indicators of Basic Early Literacy Skills (DIBELS)
- Texas Primary Reading Inventory (TPRI)
- Woodcock Reading Mastery Test (subtests) (WRMT-R)
- Easy CBM
- Intervention Central
- Facts on Fire

RTI Tier Levels

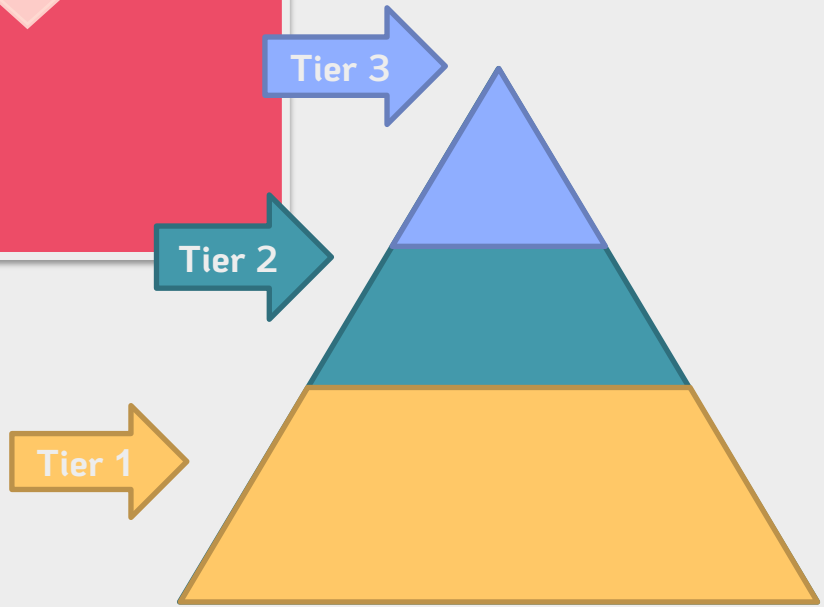
- **Tier 1:** High Quality Classroom Instruction, Screening, and Group Interventions
- **Tier 2:** Targeted Interventions
- **Tier 3:** Intensive Interventions and Comprehensive Evaluation

RTI Network



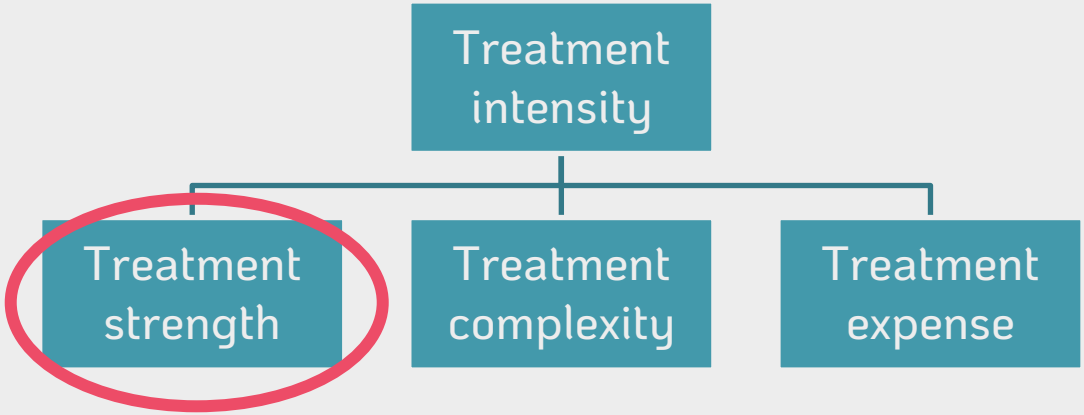
Instruction and interventions is intensified to match student needs across tiers

Educators need to know the most efficient way to deliver an intervention within tiers



Treatment Intensity

- Term “treatment intensity” was adapted from the medical model
- Design and delivery of an intervention
- However, there is no common conceptualization of treatment intensity within education



Within the field of education, treatment intensity can be considered an **umbrella term**

(DeFouw et al., 2018; Gersten et al., 2009; Warren et al., 2007; Yoder & Woynarkoski, 2015)

Intensity

- Time
- Weeks
- Sessions
- Opportunities to Respond
- Staff
- Goal setting
- Reinforcement

How to intensify

- Aspects of treatment intensity are important to consider when adapting interventions across tiers

    - Intensify an intervention by:
        - Increasing the number of minutes per session
        - Adding an additional intervention day
        - Increasing the number of math problems during a session
    - Think of your resources!
        - Who is implementing the intervention?
        - How much time?
        - What materials are available?

- Consider how ***you*** can alter aspects of treatment intensity to support IEP services or gain administrators' support when implementing RtI for math

Questions?

Recap

- Students were significantly impacted by COVID-19.
- RTI is beneficial in identifying children that need additional and intensive supports.
- Universal Screening is used to identify struggling children.
- Intensity of treatment increases from tier-to-tier

02

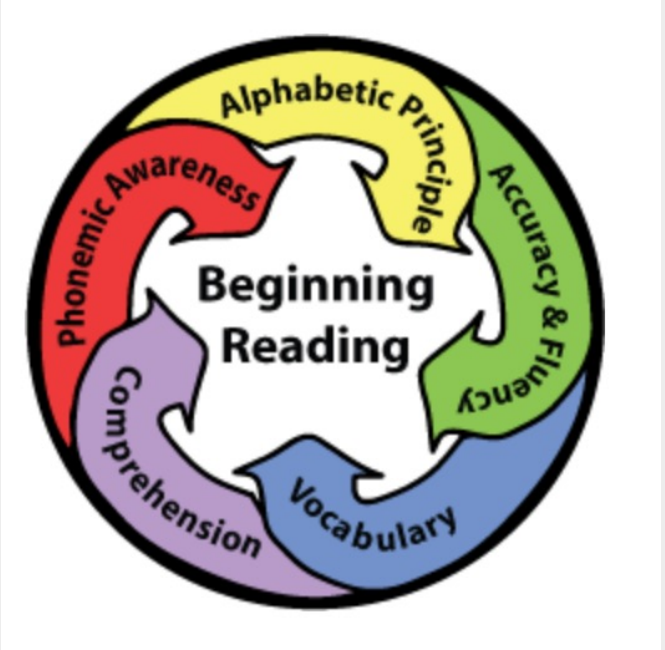
Reading Interventions & Supports

Reading Interventions: Tier 1 (Class-wide)

- Core instruction
- Implementing Universal Screening
- Identify struggling students

Reading Interventions: Tier 2 (Small Group)

- Big Ideas in Reading
- Letter Names: Incremental Rehearsal (Promotes Phonics)
- Paired Reading (Increases Reading Fluency)
- Group Based Repeated Reading
- Group Based Read-Ask-Paraphrase (Reading Comprehension)



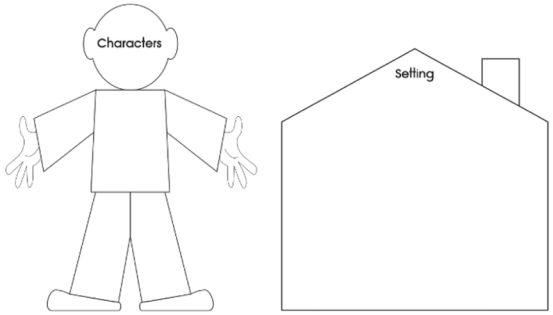
Reading Interventions: Tier 3 (Individual)

- Repeated Reading
- Error Correction
- Paired Reading
- Repeated Practice
- Cover-Copy-Compare
- Story Mapping
- Individual Read-Ask-Paraphrase

Story Map Demo

Name _____

C.007.SS1 Story Grammar Yammer



Problem

Events

Solution

Becky didn't want to go to sleep. She tried as hard as she could to stay awake. She knew that if she fell asleep, she would miss seeing Santa Claus. Becky thought that the old man with whiskers was wonderful. In all her books, he appeared so jolly and kind.

Some of the students in Becky's kindergarten class said that Santa was just a fairy tale. Janie was one of Becky's friends. She was a sassy little girl with red hair. She said that parents try to make kids believe in Santa so they behave. She thought Santa was a big trick.

Becky didn't believe Janie. Santa was a real person, and tonight she would see him again. She had seen Santa Claus once when she was three. She sat on his lap at the mall. Santa asked her what she wanted for Christmas, and Becky had been too shy to say anything.

On the way home, Becky's parents told her not to worry. They said Santa could look into your heart and know things. It still bothered her a lot though. She wished she had spoken to him.

Tonight was Christmas Eve. Weeks ago, Becky had sent Santa a list of the presents she wanted. She and her mother had baked cookies for him this afternoon. They were placed on a big red and green plate right in front of the fireplace. Santa couldn't miss them. He'd be so grateful to have a snack after all his hard work.

Becky listened hard for the sounds of Santa landing on the roof. She just knew if she stayed awake long enough she would see him. Then she could tell the other kids that he was real. Her head fell against the pillow, and she was fast asleep.

03

Writing Interventions & Supports

Writing Interventions: Tier 1 (Class-wide)

- Implementing Universal Screening
- Identify struggling students
- Fluency: have students write every day
- Spelling: Cover-Copy-Compare
- Reverse Outline the Draft: Organization
- Memorize a Story Grammar Checklist: The 3 W's

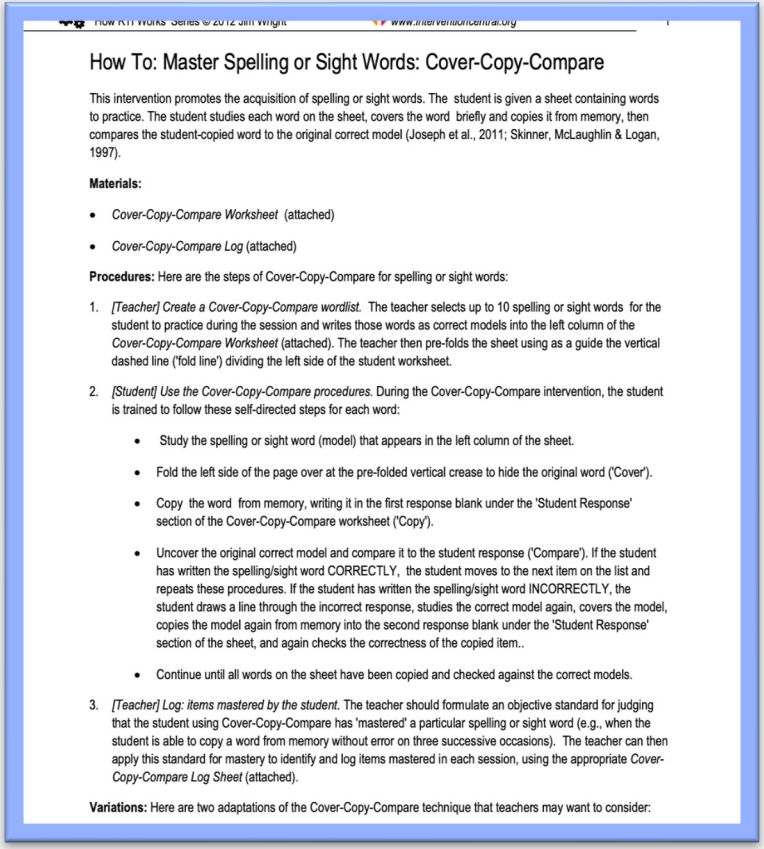
Writing Interventions: Tier 2 (Small Group)

- Integrated Writing Instruction
- Group Repeated Review with Shared Rime: Spelling
- Self Correction with Verbal Cues: Spelling

Writing Interventions: Tier 3 (Individual)

- Repeated Review with Share Rime: Spelling
- Self-Correction with Verbal Cues: Spelling

Cover-Copy-Compare Demo



'How RTI Works' Series © 2012 Jim Wright www.interventioncentral.org 1

How To: Master Spelling or Sight Words: Cover-Copy-Compare

This intervention promotes the acquisition of spelling or sight words. The student is given a sheet containing words to practice. The student studies each word on the sheet, covers the word briefly and copies it from memory, then compares the student-copied word to the original correct model (Joseph et al., 2011; Skinner, McLaughlin & Logan, 1997).

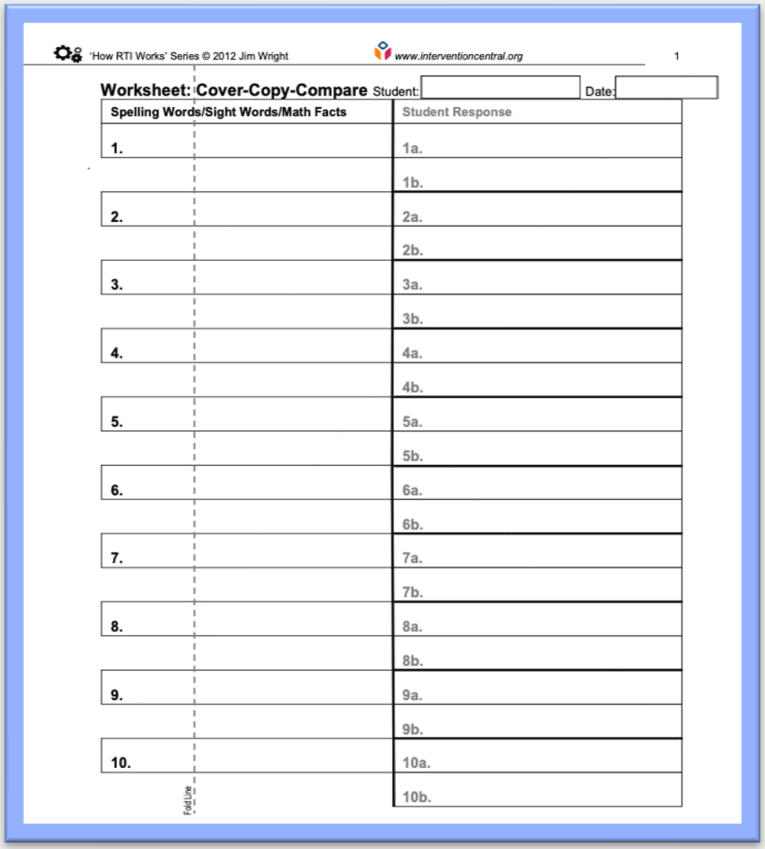
Materials:

- *Cover-Copy-Compare Worksheet* (attached)
- *Cover-Copy-Compare Log* (attached)

Procedures: Here are the steps of Cover-Copy-Compare for spelling or sight words:

1. *[Teacher] Create a Cover-Copy-Compare wordlist.* The teacher selects up to 10 spelling or sight words for the student to practice during the session and writes those words as correct models into the left column of the *Cover-Copy-Compare Worksheet* (attached). The teacher then pre-folds the sheet using as a guide the vertical dashed line ('fold line') dividing the left side of the student worksheet.
2. *[Student] Use the Cover-Copy-Compare procedures.* During the Cover-Copy-Compare intervention, the student is trained to follow these self-directed steps for each word:
   - Study the spelling or sight word (model) that appears in the left column of the sheet.
   - Fold the left side of the page over at the pre-folded vertical crease to hide the original word ('Cover').
   - Copy the word from memory, writing it in the first response blank under the 'Student Response' section of the Cover-Copy-Compare worksheet ('Copy').
   - Uncover the original correct model and compare it to the student response ('Compare'). If the student has written the spelling/sight word CORRECTLY, the student moves to the next item on the list and repeats these procedures. If the student has written the spelling/sight word INCORRECTLY, the student draws a line through the incorrect response, studies the correct model again, covers the model, copies the model again from memory into the second response blank under the 'Student Response' section of the sheet, and again checks the correctness of the copied item..
   - Continue until all words on the sheet have been copied and checked against the correct models.
3. *[Teacher] Log: items mastered by the student.* The teacher should formulate an objective standard for judging that the student using Cover-Copy-Compare has 'mastered' a particular spelling or sight word (e.g., when the student is able to copy a word from memory without error on three successive occasions). The teacher can then apply this standard for mastery to identify and log items mastered in each session, using the appropriate *Cover-Copy-Compare Log Sheet* (attached).

Variations: Here are two adaptations of the Cover-Copy-Compare technique that teachers may want to consider:



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Worksheet: Cover-Copy-Compare Student: Date:

Spelling Words/Sight Words/Math Facts	Student Response
1.	1a.
	1b.
2.	2a.
	2b.
3.	3a.
	3b.
4.	4a.
	4b.
5.	5a.
	5b.
6.	6a.
	6b.
7.	7a.
	7b.
8.	8a.
	8b.
9.	9a.
	9b.
10.	10a.
	10b.

Fold Line

04

Math Interventions & Supports

Math Interventions: Tier 1 (Class-wide)

- Core instruction
- Math Talk
- Universal screening

Math Interventions:
Tier 2 & 3 (Small Group & Individual)

- Explicit Timing
- Cover-Copy-Compare
- Incremental Rehearsal
- Taped Problems
- Flashcard Drill
- Peer Tutoring

Explicit Timing Demo

Explicit Timing (ET): Intervention Overview

Target Behavior

ET was designed to be used with both individual and groups of students who need to increase fluent responding when completing basic math facts (i.e., addition, subtraction, multiplication, division). This antecedent timing procedure is appropriate for students who accurately respond to fact problems but do so slowly. ET procedures were designed to increase rates of responding and consequently speed of responding to basic fact problems and works best when paired with performance feedback (e.g., self-graphing) and reward. While ET will primarily be used in elementary grades, older students with fluency deficiencies in basic fact skills can also benefit.

Materials

ET Worksheets, Pencil, Implementation Checklist, stopwatch, reward

ET Procedures: Student

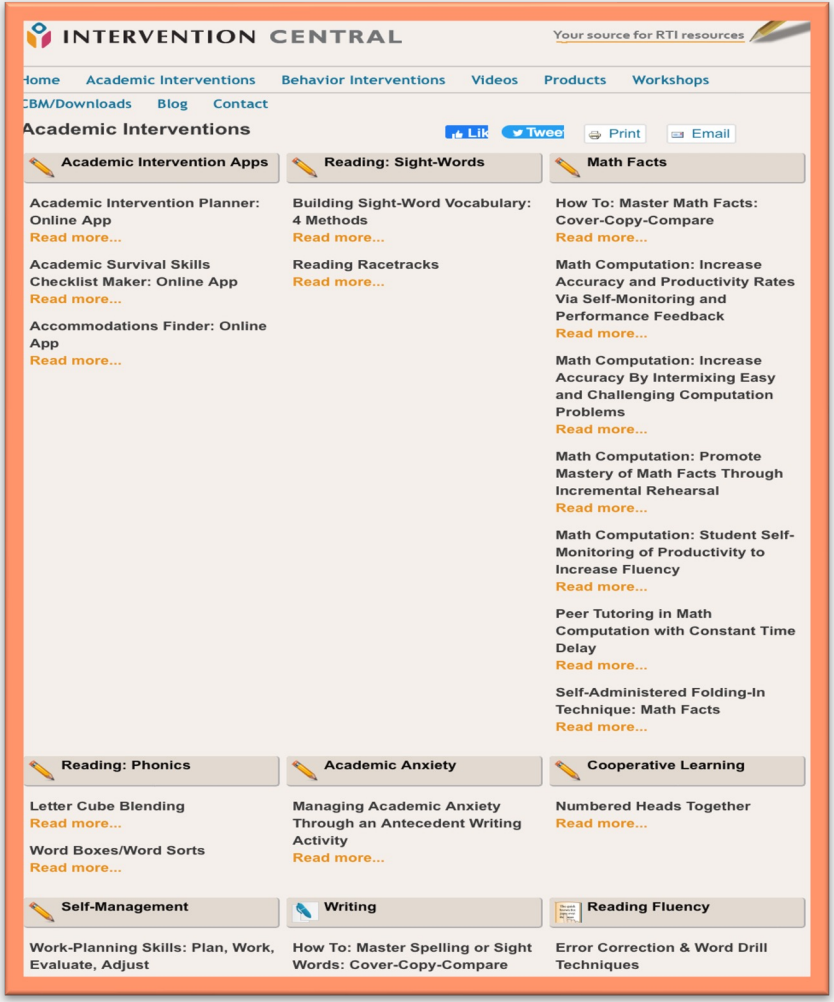
1. Student writes name and date at the top of the paper. If using self-graphing student marks on graph his/her previous days performance.
2. Student begins problems when teacher says start and stops when instructed to stop

ET Procedures: Teacher

1. Teacher training: Read MIND: Computation packet & watch ET training clips.
2. Assess students to find appropriate target operation (+,- x,÷) that the student scores at or above 31 DCPM.
3. Obtain ET worksheets for the selected operation (+,- x,÷).
4. Give student probes, instruct them to write name and date, tell them they have __ minutes to complete as many problems as possible, begin & start timer, stop students after specified amount of time.
5. Repeat as needed (works well when breaking larger practice periods into smaller, timed durations. Distributing across the day increases learning rates as well (e.g., doing ET in the morning and then in the afternoon).
6. As students are working cycle through the class and provide student(s) with procedural feedback as needed and encourage students to do their best work (i.e., don't go and set at desk).

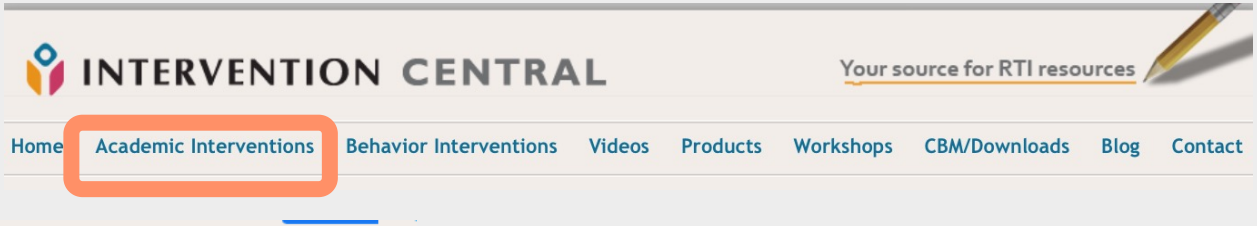
MIND: Computation TP/ET Worksheet Subtraction 3A Name: _____ Date: _____

10 - 2	15 - 9	11 - 6	13 - 6	6 - 3	17 - 9	14 - 7	13 - 4	7 - 5
8 - 4	11 - 3	8 - 5	11 - 5	8 - 4	17 - 8	15 - 6	13 - 7	10 - 8
11 - 8	7 - 2	6 - 3	14 - 7	8 - 3	13 - 9	10 - 2	13 - 6	8 - 4
11 - 6	17 - 9	15 - 9	11 - 3	8 - 5	6 - 3	7 - 5	13 - 4	14 - 7
8 - 4	15 - 6	13 - 7	17 - 8	6 - 3	13 - 9	11 - 8	11 - 5	14 - 7
8 - 3	7 - 2	10 - 8	8 - 4	13 - 6	10 - 2	17 - 9	7 - 5	13 - 4
8 - 5	15 - 9	11 - 3	6 - 3	11 - 6	14 - 7	7 - 2	13 - 9	17 - 8
8 - 4	13 - 7	11 - 5	11 - 8	10 - 8	6 - 3	15 - 6	14 - 7	8 - 3

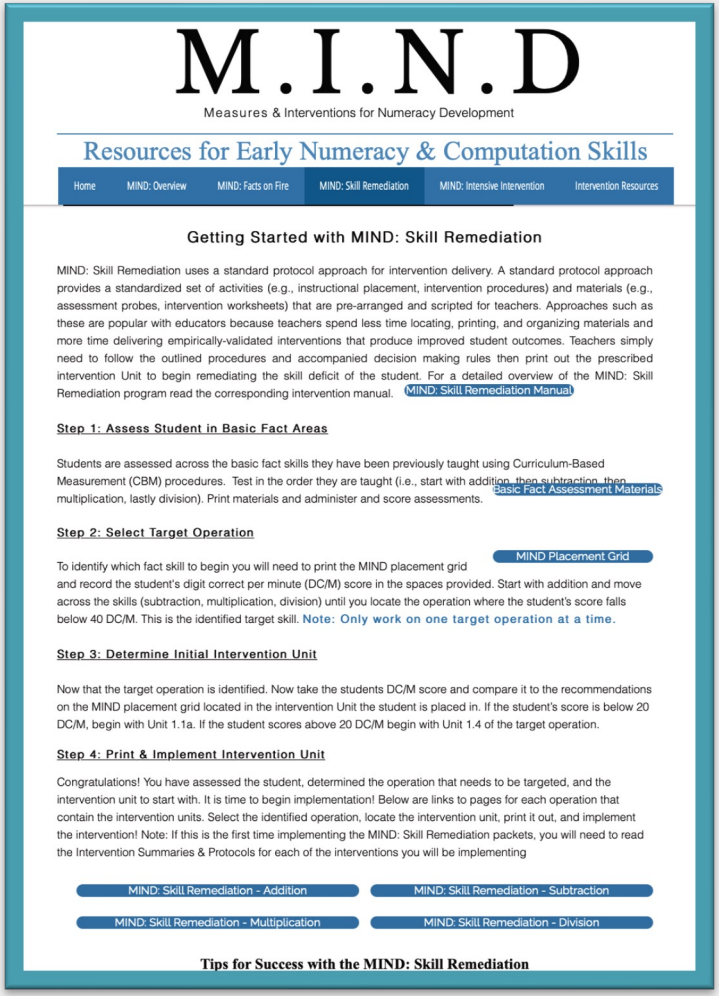


Intervention Central

Intervention Central



- Reading: Sight-Words
- Math Facts
- Writing
- Reading Fluency
- Math
- Reading: Phonics
- Early Math Fluency
- Reading Comprehension



M.I.N.D

Measures & Interventions for Numeracy Development

Resources for Early Numeracy & Computation Skills

Home | MIND: Overview | MIND: Facts on Fire | MIND: Skill Remediation | MIND: Intensive Intervention | Intervention Resources

Getting Started with MIND: Skill Remediation

MIND: Skill Remediation uses a standard protocol approach for intervention delivery. A standard protocol approach provides a standardized set of activities (e.g., instructional placement, intervention procedures) and materials (e.g., assessment probes, intervention worksheets) that are pre-arranged and scripted for teachers. Approaches such as these are popular with educators because teachers spend less time locating, printing, and organizing materials and more time delivering empirically-validated interventions that produce improved student outcomes. Teachers simply need to follow the outlined procedures and accompanied decision making rules then print out the prescribed intervention Unit to begin remediating the skill deficit of the student. For a detailed overview of the MIND: Skill Remediation program read the corresponding intervention manual. MIND: Skill Remediation Manual

Step 1: Assess Student in Basic Fact Areas

Students are assessed across the basic fact skills they have been previously taught using Curriculum-Based Measurement (CBM) procedures. Test in the order they are taught (i.e., start with addition, then subtraction, then multiplication, lastly division). Print materials and administer and score assessments. Basic Fact Assessment Materials

Step 2: Select Target Operation

MIND Placement Grid

To identify which fact skill to begin you will need to print the MIND placement grid and record the student's digit correct per minute (DC/M) score in the spaces provided. Start with addition and move across the skills (subtraction, multiplication, division) until you locate the operation where the student's score falls below 40 DC/M. This is the identified target skill. **Note: Only work on one target operation at a time.**

Step 3: Determine Initial Intervention Unit

Now that the target operation is identified. Now take the students DC/M score and compare it to the recommendations on the MIND placement grid located in the intervention Unit the student is placed in. If the student's score is below 20 DC/M, begin with Unit 1.1a. If the student scores above 20 DC/M begin with Unit 1.4 of the target operation.

Step 4: Print & Implement Intervention Unit

Congratulations! You have assessed the student, determined the operation that needs to be targeted, and the intervention unit to start with. It is time to begin implementation! Below are links to pages for each operation that contain the intervention units. Select the identified operation, locate the intervention unit, print it out, and implement the intervention! Note: If this is the first time implementing the MIND: Skill Remediation packets, you will need to read the Intervention Summaries & Protocols for each of the interventions you will be implementing

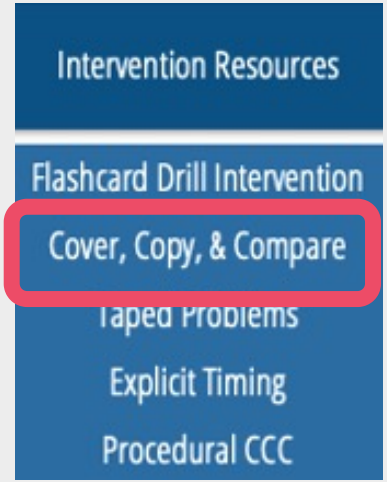
MIND: Skill Remediation - Addition | MIND: Skill Remediation - Subtraction

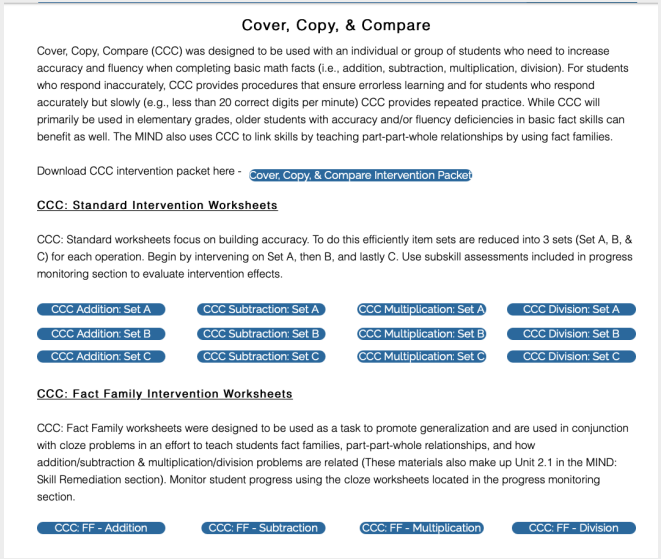
MIND: Skill Remediation - Multiplication | MIND: Skill Remediation - Division

Tips for Success with the MIND: Skill Remediation

M.I.N.D. Website

M.I.N.D. Website





Cover, Copy, & Compare

Cover, Copy, Compare (CCC) was designed to be used with an individual or group of students who need to increase accuracy and fluency when completing basic math facts (i.e., addition, subtraction, multiplication, division). For students who respond inaccurately, CCC provides procedures that ensure errorless learning and for students who respond accurately but slowly (e.g., less than 20 correct digits per minute) CCC provides repeated practice. While CCC will primarily be used in elementary grades, older students with accuracy and/or fluency deficiencies in basic fact skills can benefit as well. The MIND also uses CCC to link skills by teaching part-part-whole relationships by using fact families.

Download CCC intervention packet here - Cover, Copy, & Compare Intervention Packet

CCC: Standard Intervention Worksheets

CCC: Standard worksheets focus on building accuracy. To do this efficiently item sets are reduced into 3 sets (Set A, B, & C) for each operation. Begin by intervening on Set A, then B, and lastly C. Use subskill assessments included in progress monitoring section to evaluate intervention effects.

CCC Addition: Set A	CCC Subtraction: Set A	CCC Multiplication: Set A	CCC Division: Set A
CCC Addition: Set B	CCC Subtraction: Set B	CCC Multiplication: Set B	CCC Division: Set B
CCC Addition: Set C	CCC Subtraction: Set C	CCC Multiplication: Set C	CCC Division: Set C

CCC: Fact Family Intervention Worksheets

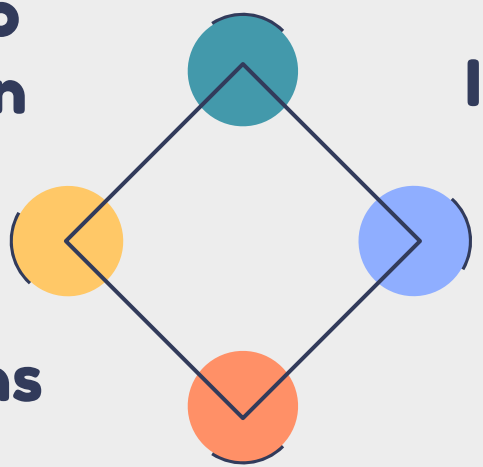
CCC: Fact Family worksheets were designed to be used as a task to promote generalization and are used in conjunction with cloze problems in an effort to teach students fact families, part-part-whole relationships, and how addition/subtraction & multiplication/division problems are related (These materials also make up Unit 2.1 in the MIND: Skill Remediation section). Monitor student progress using the cloze worksheets located in the progress monitoring section.

CCC: FF - Addition	CCC: FF - Subtraction	CCC: FF - Multiplication	CCC: FF - Division

Recap

Response to Intervention

Reading Interventions

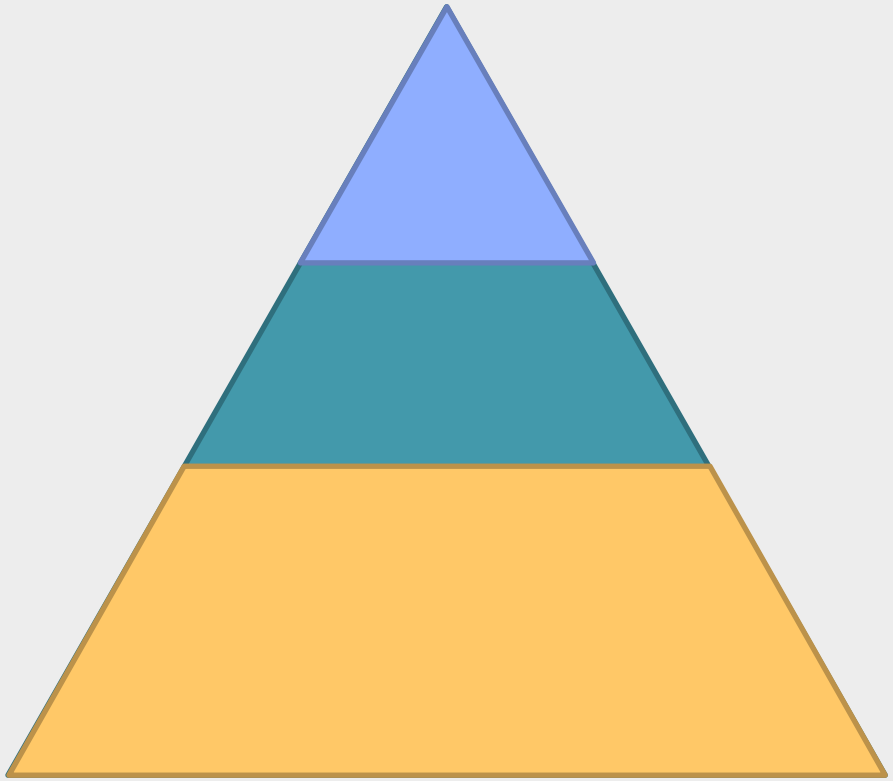


Writing Interventions

Math Interventions

Living in a World of RtI

- What intervention variables should be intensified for different groups/students/profiles?
- How do we make data-based decisions to intensify supports?
- How do we intensify and deliver interventions with an eye on resource allocation?



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Matters Lab

Check us out! Scan the QR Code ☺

SCAN ME

THANKS!

Do you have any questions? Scan Code!

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