Intervention Sampler. What are examples of academic instruction/interventions that teachers can use in the classroom?
**Sampler: Academic Interventions:**

1. Incremental Rehearsal (Phonics)
2. Letter Cube Blending (Phonics/Alphabetics)
3. Reading Racetrack (Vocabulary)
4. Paired Reading (Fluency)
5. HELPS Program (Fluency)
6. Group-Based Repeated Reading (Fluency)
7. Click or Clunk (Comprehension)
8. Cover-Copy-Compare (Math Fact)
9. Classwide Peer Tutoring (Math Facts)
Big Ideas in Reading

1. “Phonemic Awareness: The ability to hear and manipulate sounds in words.

2. Alphabetic Principle: The ability to associate sounds with letters and use these sounds to form words.

3. Fluency with Text: The effortless, automatic ability to read words in connected text.

4. Vocabulary: The ability to understand (receptive) and use (expressive) words to acquire and convey meaning.

5. Comprehension: The complex cognitive process involving the intentional interaction between reader and text to convey meaning.”

Sample Strategies to Promote...Phonics/Alphabetics
Response to Intervention

Letter Names: Incremental Rehearsal

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<table>
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<td>N</td>
<td>C</td>
<td>Y</td>
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</tbody>
</table>

Step 1: The tutor writes down on a series of flash cards the letters that the student needs to learn.
Step 2: The tutor reviews the letter identification cards with the student. Any card that the student can answer within 2 seconds is sorted into the ‘KNOWN’ pile. Any card that the student cannot answer within two seconds—or answers incorrectly—is sorted into the ‘UNKNOWN’ pile.

<table>
<thead>
<tr>
<th>‘KNOWN’ Letters</th>
<th>‘UNKNOWN’ Letters</th>
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</thead>
<tbody>
<tr>
<td>b</td>
<td>K</td>
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<td>P</td>
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<td>a</td>
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<td>m</td>
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</tbody>
</table>
Response to Intervention

Incremental Rehearsal of Letter Names

Step 3: The tutor is now ready to follow a nine-step incremental-rehearsal sequence: First, the tutor presents the student with a single index card containing an ‘unknown’ letter. The tutor reads the letter aloud, then prompts the student to read off the same unknown letter.

K
Response to Intervention

Incremental Rehearsal of Letter Names

Step 3 (Cont.): Next the tutor takes a letter from the ‘known’ pile and pairs it with the unknown letter. When shown each of the two letters, the student is asked to identify it.

K  b
Step 3 (Cont.): The tutor then repeats the sequence—adding yet another known letter card to the growing deck of flash cards being reviewed and each time prompting the student to answer the whole series of letter names. This process continues until the review deck contains a total of one ‘unknown’ letter and eight ‘known’ letters (a high ratio of ‘known’ to ‘unknown’ material).
Step 4: At this point, the last ‘known’ letter that had been added to the student’s review deck is discarded (placed back into the original pile of ‘known’ items) and the previously ‘unknown’ letter name is now treated as the first ‘known’ letter in new student review deck for future drills.
Incremental Rehearsal of Letter Names

Step 4: The student is then presented with a new ‘unknown’ letter to identify—and the review sequence is once again repeated each time until the ‘unknown’ letter is grouped with nine ‘known’ letters—and on and on. Daily review sessions are discontinued either when time runs out or when the student answers an ‘unknown’ letter incorrectly three times.
Letter Cube Blending

- The Letter Cube Blending intervention targets alphabetic (phonics) skills. The student is given three cubes with assorted consonants and vowels appearing on their sides. The student rolls the cubes and records the resulting letter combinations on a recording sheet. The student then judges whether each resulting ‘word’ composed from the letters randomly appearing on the blocks is a real word or a nonsense word. The intervention can be used with one student or a group. (Florida Center for Reading Research, 2009; Taylor, Ding, Felt, & Zhang, 2011).

Response to Intervention

Letter Cube Blending

**PREPARATION:** Here are guidelines for preparing Letter Cubes:

- Start with three (3) Styrofoam or wooden blocks (about 3 inches in diameter). These blocks can be purchased at most craft stores.

- With three markers of different colors (green, blue, red), write the lower-case letters listed below on the sides of the three blocks—with one bold letter displayed per side.
  - Block 1: t,c,d,b,f,m: green marker
  - Block 2: a,e,i,o.u,i (The letter / appears twice on the block.): blue marker
  - Block 3: b,d,m,n,r,s: red marker

- Draw a line under any letter that can be confused with letters that have the identical shape but a different orientation (e.g., _b_ and _d_).

Response to Intervention

Letter Cube Blending

INTERVENTION STEPS: At the start of the intervention, each student is given a Letter Cube Blending Recording Sheet. During the Letter Cube Blending activity:

1. Each student takes a turn rolling the Letter Cubes. The student tosses the cubes on the floor, a table, or other flat, unobstructed surface. The cubes are then lined up in 1-2-3 (green: blue: red) order.

2. The student is prompted to sound out the letters on the cubes. The student is prompted to sound out each letter, to blend the letters, and to read aloud the resulting ‘word’.

INTERVENTION STEPS (Cont.):

3. The student identifies and records the word as ‘real’ or ‘nonsense’. The student then identifies the word as ‘real’ or ‘nonsense’ and then writes the word on in the appropriate column on the Letter Cube Blending Recording Sheet.

4. The activity continues to 10 words. The activity continues until students in the group have generated at least 10 words on their recording sheets.

**Letter Cube Blending**

**Sample Recording Sheet**

| d | i | r |

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**Sources:**

Sample Strategy to Promote...Sight-Word Vocabulary
Reading Racetrack

- The teacher selects 28 words from a sight word list (e.g., Dolch, Fry) to create ‘Reading Racetracks’.
- In one session, the student reads through four target Racetracks with 7 words each and one review Racetrack with all 28 words.
- The student reads words aloud from a ‘Reading Racetrack’ sheet for 1 minute.
- The student engages in repeated readings from that Racetrack wordlist until reaching a 90-word criterion or having read the list five times in a row.

<table>
<thead>
<tr>
<th>TARGET LIST 1</th>
<th>#/Words Correct</th>
<th>#/Errors</th>
<th>Practice Words</th>
<th>TARGET LIST 3</th>
<th>#/Words Correct</th>
<th>#/Errors</th>
<th>Practice Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Read</td>
<td></td>
<td></td>
<td></td>
<td>First Read</td>
<td></td>
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<tr>
<td>Second Read</td>
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<td>Third Read</td>
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<td>Third Read</td>
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<td>Fourth Read</td>
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<td>Fifth Read</td>
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<td>Fifth Read</td>
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</tr>
</tbody>
</table>

Sample Strategies to Promote...Reading Fluency
Classroom Academic Interventions: Reading Fluency

- **PAIRED READING: INCREASE READING FLUENCY.** Teacher and student begin the session reading aloud in unison.

  During the session, at the student’s choosing, he/she gives a silent signal (e.g., lightly tapping the teacher's wrist); at this signal, the teacher stops reading aloud and instead follows along silently while the student continues to read aloud. Whenever the student commits a reading error or hesitates for 3 seconds or longer (during either unison or independent reading), the teacher corrects the error and resumes reading in unison.

Response to Intervention

Intervention Program Example:
HELPS (www.helpsprogram.org)

- HELPS (Helping Early Literacy with Practice Strategies) is a free tutoring program that targets student reading fluency skills. Developed by Dr. John Begeny of North Carolina State University, the program is an evidence-based intervention package that includes:
  - adult modeling of fluent reading,
  - repeated reading of passages by the student,
  - phrase-drill error correction,
  - verbal cueing and retell check to encourage student reading comprehension,
  - reward procedures to engage and encourage the student reader.
HELPS Reading Fluency Program
www.helpsprogram.org
LINK AVAILABLE ON CONFERENCE WEB PAGE
Group-Based Repeated Reading  
(Available on Conference Web Page)

An effective group repeated reading intervention (Klubnik & Ardoin, 2010) has been developed that allows a tutor to work on reading fluency with up to 3 students in a group format. This tutoring package includes several components, with repeated reading as the 'engine' that drives student growth in reading fluency. A tutoring session using this group intervention will last about 15 minutes.

Response to Intervention

Group-Based Repeated Reading

**Preparation.** To prepare for each tutoring session, the tutor creates or obtains these materials:

- 1 student reading passage: This passage should be 150 words or longer and at students' instructional level. *Instructional* as defined here means that students are able to correctly read at least 90% of the words in the passage. Copies of the passage are made for each student and the tutor.

- 1 copy of the *Group Repeated Reading Intervention Behavior Rating Scale* (two versions of which appear later in this document).

Group-Based Repeated Reading

**Procedure.** The group repeated reading intervention has 4 components: passage preview, repeated readings, phrase-drill error correction, and contingent reward:

1. **Passage Preview.** The tutor reads the practice passage aloud once while students follow along silently, tracking their place with an index finger. During this initial read-through, the tutor stops several times at unpredictable points and asks a student selected at random to read the next word in the passage. (NOTE: This 'assisted cloze' strategy – Homan, Klesius, & Hite, 1993–ensures that students pay close attention to the tutor’s modeling of text.)

Group-Based Repeated Reading

Procedure.

2. Repeated Readings. The tutor next has the students read the practice passage aloud 3 times. For each read-aloud, the students engage in sequential reading, with the process continuing in round-robin fashion until the passage is completed. When a student misreads or hesitates in reading a word for 3 seconds or longer, the tutor states the correct word. At the beginning of each repeated reading, the tutor selects a different student, to ensure that by the end of the 3 readings, each student will have read each sentence in the passage once.

Response to Intervention

Group-Based Repeated Reading

Procedure.

3. **Phrase Drill Error Correction.** At the end of each reading, the tutor reviews error words (misreads or hesitations for 3 seconds or longer) with students. The tutor points to each error word, ensures that students are looking at the word, and asks them to read the word aloud in unison.

If students misread or hesitate for 3 seconds or longer, the tutor pronounces the error word and has students read the word aloud together (choral responding). Then the tutor has students read aloud a phrase of 2-3 words that includes the error word—performing this action twice.

4. **Contingent Reward.** At the start of each tutoring session, the tutor reviews with the group the 3 behavioral expectations from the Group Repeated Reading Intervention Behavior Rating Scale:

- When asked to read aloud, I did my best reading.
- When others were reading, I paid close attention.
- I showed good behaviors and followed all directions quickly.

The tutor reminds the students that they can earn a reward if they observe these behavioral expectations.

### Group Repeated Reading Intervention Behavior Rating Scale

**Student Name:** Reading Group Students  
**Date:**  
**Rater:** Tutor  
**Classroom:**  

**Directions:** Review each of the Behavior Report Card items below. For each item, rate the degree to which the student showed the behavior or met the behavior goal.

<table>
<thead>
<tr>
<th></th>
<th>Student 1</th>
<th>Student 2</th>
<th>Student 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When asked to read aloud, I did my best reading.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The degree to which Reading Group Students met this behavior goal</td>
<td>😞 1 😞 2 😊 3</td>
<td>😞 1 😞 2 😊 3</td>
<td>😞 1 😞 2 😊 3</td>
</tr>
<tr>
<td><strong>When others were reading, I paid close attention.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The degree to which Reading Group Students met this behavior goal</td>
<td>😞 1 😞 2 😊 3</td>
<td>😞 1 😞 2 😊 3</td>
<td>😞 1 😞 2 😊 3</td>
</tr>
<tr>
<td><strong>I showed good behaviors and followed all directions quickly.</strong></td>
<td></td>
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</tr>
<tr>
<td>The degree to which Reading Group Students met this behavior goal</td>
<td>😞 1 😞 2 😊 3</td>
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<td>😞 1 😞 2 😊 3</td>
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Rater: Tutor  
Classroom:

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<th>Student 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When asked to read aloud, I did my best reading.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well Reading Group Students did in meeting the behavior goal?</td>
<td>P F G</td>
<td>P F G</td>
<td>P F G</td>
</tr>
<tr>
<td>1             2           3</td>
<td>1........2........3</td>
<td>1........2........3</td>
<td>1........2........3</td>
</tr>
<tr>
<td>Poor           Fair        Good</td>
<td></td>
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<tr>
<td><strong>When others were reading, I paid close attention.</strong></td>
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<td>1             2           3</td>
<td>1........2........3</td>
<td>1........2........3</td>
<td>1........2........3</td>
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<tr>
<td>Poor           Fair        Good</td>
<td></td>
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</tr>
<tr>
<td><strong>I showed good behaviors and followed all directions quickly.</strong></td>
<td></td>
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</tr>
<tr>
<td>How well Reading Group Students did in meeting the behavior goal?</td>
<td>P F G</td>
<td>P F G</td>
<td>P F G</td>
</tr>
<tr>
<td>1             2           3</td>
<td>1........2........3</td>
<td>1........2........3</td>
<td>1........2........3</td>
</tr>
<tr>
<td>Poor           Fair        Good</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Response to Intervention

Group-Based Repeated Reading

Procedure.

4. **Contingent Reward (Cont.)** At the end of the session, the tutor rates each student’s behavior on the Group Repeated Reading Intervention Behavior Rating Scale. Any student who earns a top score (3 points) on all rating items receives a nickel (Klubnik & Ardoin, 2010), sticker, or other modest reward.

Sample Strategy to Promote...Reading Comprehension
Response to Intervention

Reading Comprehension: Self-Management Strategies

CLICK OR CLUNK: MONITORING COMPREHENSION

• The student continually checks understanding of sentences, paragraphs, and pages of text while reading.

• If the student understands what is read, he/she quietly says ‘CLICK’ and continues reading.

• If the student encounters problems with vocabulary or comprehension, he/she quietly says ‘CLUNK’ and uses a checklist to apply simple strategies to solve those reading difficulties.

‘Click or Clunk’ Check Sheet

**Sentence Check... “Did I understand this sentence?”**
- If you had trouble understanding a word in the sentence, try:
  - Reading the sentence over.
  - Reading the next sentence.
  - Looking up the word in the glossary (if the book or article has one).
  - Asking someone.

- If you had trouble understanding the meaning of the sentence, try:
  - Reading the sentence over.
  - Reading the whole paragraph again.
  - Reading on.
  - Asking someone.

**Paragraph Check... “What did the paragraph say?”**
- If you had trouble understanding what the paragraph said, try:
  - Reading the paragraph over.

**Page Check... “What do I remember?”**
- If you had trouble remembering what was said on this page, try:
  - Re-reading each paragraph on the page, and asking yourself, “What did it say?”

*Adapted from Anderson (1980), Babbit (1984)*
Sample Strategies to Promote... Math Facts
Math Facts: Cover-Copy-Compare

In this intervention to promote acquisition of math facts, the student is given a sheet with the math facts with answers. The student looks at each math model, covers the model briefly and copies it from memory, then compares the copied version to the original correct model (Skinner, McLaughlin & Logan, 1997).
<table>
<thead>
<tr>
<th>Math Facts</th>
<th>Student Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. $9 \times 7 = 63$</td>
<td>1a. $9 \times 7 = 63$</td>
</tr>
<tr>
<td>2. $9 \times 2 = 18$</td>
<td>2a.</td>
</tr>
<tr>
<td>3. $9 \times 4 = 36$</td>
<td>3a.</td>
</tr>
<tr>
<td>4. $9 \times 1 = 9$</td>
<td>4a.</td>
</tr>
<tr>
<td>5. $9 \times 9 = 81$</td>
<td>5a.</td>
</tr>
<tr>
<td>6. $9 \times 6 = 54$</td>
<td>6a.</td>
</tr>
<tr>
<td>7. $9 \times 3 = 27$</td>
<td>7a.</td>
</tr>
<tr>
<td>8. $9 \times 5 = 45$</td>
<td>8a.</td>
</tr>
<tr>
<td>9. $9 \times 10 = 90$</td>
<td>9a.</td>
</tr>
<tr>
<td>10. $9 \times 8 = 72$</td>
<td>10a.</td>
</tr>
</tbody>
</table>
Peer Tutoring in Math
Computation with Constant Time Delay
Peer Tutoring in Math Computation with Constant Time Delay

- **DESCRIPTION:** This intervention employs students as reciprocal peer tutors to target acquisition of basic math facts (math computation) using constant time delay (Menesses & Gresham, 2009; Telecsan, Slaton, & Stevens, 1999). Each tutoring ‘session’ is brief and includes its own progress-monitoring component—making this a convenient and time-efficient math intervention for busy classrooms.
Response to Intervention

Peer Tutoring in Math Computation with Constant Time Delay

MATERIALS:

Student Packet: A work folder is created for each tutor pair. The folder contains:

- 10 math fact cards with equations written on the front and correct answer appearing on the back. NOTE: The set of cards is replenished and updated regularly as tutoring pairs master their math facts.
- Progress-monitoring form for each student.
- Pencils.

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Peer Tutoring in Math Computation with Constant Time Delay

**PREPARATION:** To prepare for the tutoring program, the teacher selects students to participate and trains them to serve as tutors.

**Select Student Participants.** Students being considered for the reciprocal peer tutor program should at minimum meet these criteria (Telecsan, Slaton, & Stevens, 1999, Menesses & Gresham, 2009):

- Is able and willing to follow directions;
- Shows generally appropriate classroom behavior;
- Can attend to a lesson or learning activity for at least 20 minutes.
Peer Tutoring in Math Computation with Constant Time Delay

Select Student Participants (Cont.). Students being considered for the reciprocal peer tutor program should at minimum meet these criteria (Telecsan, Slaton, & Stevens, 1999, Menesses & Gresham, 2009):

• Is able to name all numbers from 0 to 18 (if tutoring in addition or subtraction math facts) and name all numbers from 0 to 81 (if tutoring in multiplication or division math facts).

• Can correctly read aloud a sampling of 10 math-facts (equation plus answer) that will be used in the tutoring sessions. (NOTE: The student does not need to have memorized or otherwise mastered these math facts to participate—just be able to read them aloud from cards without errors).

• [To document a deficit in math computation] When given a two-minute math computation probe to complete independently, computes fewer than 20 correct digits (Grades 1-3) or fewer than 40 correct digits (Grades 4 and up) (Deno & Mirkin, 1977).
Peer Tutoring in Math Computation: Teacher Nomination Form

Reciprocal Peer Tutoring in Math Computation: Teacher Nomination Form

Teacher: 
Classroom: 
Date: 

Directions: Select students in your class that you believe would benefit from participation in a peer tutoring program to boost math computation skills. Write the names of your student nominees in the space provided below. Remember, students who are considered for the peer tutoring program should—at minimum—meet these criteria:

- Show generally appropriate classroom behaviors and follow directions.
- Can pay attention to a lesson or learning activity for at least 20 minutes.
- Are able to wait appropriately to hear the correct answer from the tutor if the student does not know the answer.
- Can correctly read aloud a sampling of 10 math-facts (equation plus answer) that will be used in the tutoring sessions. (NOTE: The student does not need to have memorized or otherwise mastered these math facts to participate—just be able to read them aloud from cards without errors.)

<table>
<thead>
<tr>
<th>Number</th>
<th>Student Name</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td>3.</td>
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<td>4.</td>
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<td>5.</td>
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<td>6.</td>
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<td>7.</td>
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<tr>
<td>8.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Peer Tutoring in Math Computation with Constant Time Delay

**Tutoring Activity.** Each tutoring ‘session’ last for 3 minutes. The tutor:

- **Presents Cards.** The tutor presents each card to the tutee for 3 seconds.

- **Provides Tutor Feedback.** [When the tutee responds correctly] The tutor acknowledges the correct answer and presents the next card.

  [When the tutee does not respond within 3 seconds or responds incorrectly] The tutor states the correct answer and has the tutee repeat the correct answer. The tutor then presents the next card.

- **Provides Praise.** The tutor praises the tutee immediately following correct answers.

- **Shuffles Cards.** When the tutor and tutee have reviewed all of the math-fact cards, the tutor shuffles them before again presenting cards.
Response to Intervention

Peer Tutoring in Math Computation with Constant Time Delay

Progress-Monitoring Activity. The tutor concludes each 3-minute tutoring session by assessing the number of math facts mastered by the tutee. The tutor follows this sequence:

- **Presents Cards.** The tutor presents each card to the tutee for 3 seconds.
- **Remains Silent.** The tutor does not provide performance feedback or praise to the tutee, or otherwise talk during the assessment phase.
- **Sorts Cards.** Based on the tutee’s responses, the tutor sorts the math-fact cards into ‘correct’ and ‘incorrect’ piles.
- **Counts Cards and Records Totals.** The tutor counts the number of cards in the ‘correct’ and ‘incorrect’ piles and records the totals on the tutee’s progress-monitoring chart.
Peer Tutoring in Math Computation with Constant Time Delay

**Tutoring Integrity Checks.** As the student pairs complete the tutoring activities, the supervising adult monitors the integrity with which the intervention is carried out. At the conclusion of the tutoring session, the adult gives feedback to the student pairs, praising successful implementation and providing corrective feedback to students as needed. NOTE: Teachers can use the attached form *Peer Tutoring in Math Computation with Constant Time Delay: Integrity Checklist* to conduct integrity checks of the intervention and student progress-monitoring components of the math peer tutoring.
Peer Tutoring in Math Computation: Intervention Integrity Sheet: (Part 1: Tutoring Activity)

Peer Tutoring in Math Computation with Constant Time Delay: Integrity Checklist

Tutoring Session: Intervention Phase

Directions: Observe the tutor and tutee for a full intervention session. Use this checklist to record whether each of the key steps of the intervention were correctly followed.

<table>
<thead>
<tr>
<th>Correctly Carried Out?</th>
<th>Step</th>
<th>Tutor Action</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ Y ___ N</td>
<td>1.</td>
<td>Promptly Initiates Session. At the start of the timer, the tutor immediately presents the first math-fact card.</td>
<td></td>
</tr>
<tr>
<td>___ Y ___ N</td>
<td>2.</td>
<td>Presents Cards. The tutor presents each card to the tutee for 3 seconds.</td>
<td></td>
</tr>
<tr>
<td>___ Y ___ N</td>
<td>3.</td>
<td>Provides Tutor Feedback. [When the tutee responds correctly] The tutor acknowledges the correct answer and presents the next card. [When the tutee does not respond within 3 seconds or responds incorrectly] The tutor states the correct answer and has the tutee repeat the correct answer. The tutor then presents the next card.</td>
<td></td>
</tr>
<tr>
<td>___ Y ___ N</td>
<td>4.</td>
<td>Provides Praise. The tutor praises the tutee immediately following correct answers.</td>
<td></td>
</tr>
<tr>
<td>___ Y ___ N</td>
<td>5.</td>
<td>Shuffles Cards. When the tutor and tutee have reviewed all of the math-fact cards, the tutor shuffles them before again presenting cards.</td>
<td></td>
</tr>
<tr>
<td>___ Y ___ N</td>
<td>6.</td>
<td>Continues to the Timer. The tutor continues to present math-fact cards for tutee response until the timer rings.</td>
<td></td>
</tr>
</tbody>
</table>
Peer Tutoring in Math Computation: Intervention Integrity Sheet (Part 2: Progress-Monitoring)

<table>
<thead>
<tr>
<th>Correctly Carried Out?</th>
<th>Step</th>
<th>Tutor Action</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>__Y__N</td>
<td>1.</td>
<td>Presents Cards. The tutor presents each card to the tutee for 3 seconds.</td>
<td></td>
</tr>
<tr>
<td>__Y__N</td>
<td>2.</td>
<td>Remains Silent. The tutor does not provide performance feedback or praise to the tutee, or otherwise talk during the assessment phase.</td>
<td></td>
</tr>
<tr>
<td>__Y__N</td>
<td>3.</td>
<td>Sorts Cards. The tutor sorts cards into ‘correct’ and ‘incorrect’ piles based on the tutee’s responses.</td>
<td></td>
</tr>
<tr>
<td>__Y__N</td>
<td>4.</td>
<td>Counts Cards and Records Totals. The tutor counts the number of cards in the ‘correct’ and ‘incorrect’ piles and records the totals on the tutee’s progress-monitoring chart.</td>
<td></td>
</tr>
</tbody>
</table>
## Math Tutoring: Score Sheet

<table>
<thead>
<tr>
<th>Date</th>
<th>Cards Correct</th>
<th>Cards Incorrect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Group Activity: Reading/Writing/Math Interventions

At your tables:

• Consider the academic intervention ideas shared here.

• Discuss how you might use one or more of these strategies in your classroom.

---

Sampler: Academic Interventions:

1. Incremental Rehearsal (Phonics)
2. Letter Cube Blending (Phonics/Alphabetics)
3. Reading Racetrack (Vocabulary)
4. Paired Reading (Fluency)
5. HELPS Program (Fluency)
6. Group-Based Repeated Reading (Fluency)
7. Click or Clunk (Comprehension)
8. Cover-Copy-Compare (Math Fact)
9. Classwide Peer Tutoring (Math Facts)
**Classroom Data Collection.**

What are examples of efficient ways that teachers can collect data to efficiently monitor growth in a range of student academic skills & behavior?
Data Collection: Assumptions Underlying This Workshop

Assumption #1: Methods of teacher data collection should directly measure student academic performance and/or behaviors.
Assumption # 2: The rigor of data collection should match the severity of the presenting student problem. Classroom (Tier 1) data collection can be less rigorous than Tiers 2 & 3—as student problems are not yet severe.
Interventions: The Essential Data Elements

1. **Clear problem definition:** ‘If you can’t name it, you can’t measure it.’

2. **Baseline data:** ‘If you don’t know the student’s starting point, you can’t know if that student has made progress with the intervention.’

3. **Intervention outcome goal:** ‘If you have no exit goal, you cannot judge if the intervention is successful—no matter how much data you collect.’

4. **Progress-monitoring plan:** ‘If you don’t actually collect the data, you are blind about the intervention outcome.’

Student outcome measures are ‘academic performance/student behavior’ detectors. When possible, they should be:

- convenient for teachers to use
- valid and reliable measures of the academic performance/behavior being measured
- sensitive to short-term student improvement
## Classroom Assessment Methods

1. **Curriculum-Based Measurement**

2. **Behavior Report Cards**
1. Curriculum-Based Measurement

- **What It Is.** Curriculum-based measurement (CBM) is a family of timed assessments to assess fluency in basic academic skills.

Examples include oral reading fluency (1-minute assessments of student reading from text), and math computation fluency (2-minute math-fact drills).
Curriculum-Based Measurement: Advantages as a Set of Tools to Monitor Basic Academic-Skill Fluency

- **Aligns** with curriculum-goals and materials
- **Is reliable** and **valid** (has ‘technical adequacy’)
- **Is criterion-referenced**: sets specific performance levels for specific tasks
- **Uses standard procedures** to prepare materials, administer, and score
- Samples student performance to give objective, observable ‘low-inference’ information about student performance
- **Has decision rules** to help educators to interpret student data and make appropriate instructional decisions
- **Is efficient** to implement in schools (e.g., training can be done quickly; the measures are brief and feasible for classrooms, etc.)
- Provides data that can be converted into **visual displays** for ease of communication

1. Curriculum-Based Measurement

- **When to Use It.** Curriculum-based measures are ideal tools when the teacher is interested in tracking a student’s increase in basic-skill fluency (i.e., speed plus accuracy).

If a student is slow and halting when reading from text, for example, the instructor may monitor the student weekly using 1-minute oral reading fluency probes to ascertain whether that student is developing fluency as a reader.
Fluency Example: CBM Student Reading Samples: What Difference Does Fluency Make?

- 3rd Grade: 19 Words Per Minute
- 3rd Grade: 70 Words Per Minute
- 3rd Grade: 98 Words Per Minute
1. Curriculum-Based Measurement

- How to assess and where to find materials.
  While CBM covers a wide range of different assessments, all are brief; timed; use standard procedures to prepare materials, administer, and score; and include decision rules to help educators to make appropriate instructional decisions (Hosp, Hosp & Howell, 2007).

  There are both free and commercial sources for obtaining CBM materials.
<table>
<thead>
<tr>
<th>CBM</th>
<th>Skill Area</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letter Sound Fluency/Letter Name Fluency</td>
<td>Alphabetics/ Phonics</td>
<td>1 Minute: Student <strong>reads letter names</strong> or <strong>sounds</strong> from a randomly generated list.</td>
</tr>
<tr>
<td>Oral Reading Fluency</td>
<td>Reading Fluency</td>
<td>1 Minute: Student <strong>reads aloud</strong> from a text passage.</td>
</tr>
<tr>
<td>Reading Comprehension Fluency (Maze)</td>
<td>Reading Comprehension</td>
<td>3 Minutes: Student <strong>reads silently</strong> from a Maze passage and selects correct word in each choice item that restores meaning to the passage.</td>
</tr>
<tr>
<td>Early Math Fluency</td>
<td>Number Sense</td>
<td>1 Minute: Student completes an Early Math Fluency probe: (1) Quantity Discrimination; (2) Missing Number; or (3) Number Identification</td>
</tr>
<tr>
<td>Computation Fluency</td>
<td>Math Fact Fluency</td>
<td>2 Minutes: Student <strong>completes math facts</strong> and receives credit for each correct digit.</td>
</tr>
<tr>
<td>Written Expression</td>
<td>Mechanics/ Conventions of Writing</td>
<td>4 Minutes: Student reads a story-starter (sentence stem), then <strong>produces a writing sample</strong> that can be scored for Total Words Written, Correctly Spelled Words, Correct Writing Sequences.</td>
</tr>
</tbody>
</table>
Early Math Fluency: Measuring ‘Number Sense’

• Early Math Fluency measures track primary-grade students’ acquisition of number sense (defined as mastery of internal number line)
• **Early Math Fluency: Quantity Discrimination** [1 minute]:
  The student is given a worksheet with number pairs and, for each pair, identifies the larger of the two numbers.

```
  4  12
```

<table>
<thead>
<tr>
<th>Grade</th>
<th>Fall QD (Chard et al., 2005)</th>
<th>Fall: +/-1 SD (≈16th%ile to 84th%ile)</th>
<th>Winter QD (Chard et al., 2005)</th>
<th>Winter: +/-1 SD (≈16th%ile to 84th%ile)</th>
<th>Spring QD (Chard et al., 2005)</th>
<th>Spring: +/-1 SD (≈16th%ile to 84th%ile)</th>
<th>Weekly Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>15</td>
<td>8→22</td>
<td>20</td>
<td>8→32</td>
<td>23</td>
<td>12→34</td>
<td>0.25</td>
</tr>
<tr>
<td>1</td>
<td>23</td>
<td>16→30</td>
<td>30</td>
<td>21→39</td>
<td>37</td>
<td>28→46</td>
<td>0.44</td>
</tr>
</tbody>
</table>

• **Early Math Fluency: Missing Number** [1 minute]: The student is given a worksheet with 4-digit number series with one digit randomly left blank and, for each series, names the missing number.  

```
14 __ 16 17
```

---

**Missing Number (MN): 1 Minute**: The student is presented with response items consisting of 3 sequential numbers with one of those numbers randomly left blank. (Each 3-number series is randomly generated from the pool of numbers 1-20.) The student attempts to name the missing number in each series.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Fall MN (Chard et al., 2005)</th>
<th>Fall: +/-1 SD (≈16th%ile to 84th%ile)</th>
<th>Winter MN (Chard et al., 2005)</th>
<th>Winter: +/-1 SD (≈16th%ile to 84th%ile)</th>
<th>Spring MN (Chard et al., 2005)</th>
<th>Spring: +/-1 SD (≈16th%ile to 84th%ile)</th>
<th>Weekly Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>3</td>
<td>0→7</td>
<td>10</td>
<td>3→17</td>
<td>14</td>
<td>7→21</td>
<td>0.34</td>
</tr>
<tr>
<td>1</td>
<td>9</td>
<td>3→15</td>
<td>17</td>
<td>11→23</td>
<td>20</td>
<td>14→26</td>
<td>0.34</td>
</tr>
</tbody>
</table>

• **Early Math Fluency: Number Identification** [1 minute]: The student is given a worksheet randomly generated numbers and reads off as many as possible within the time limit.

```
34 37 50 38 1
```

<table>
<thead>
<tr>
<th>Grade</th>
<th>Fall NID (Chard et al., 2005)</th>
<th>Fall: +/-1 SD (≈16th%ile to 84th%ile)</th>
<th>Winter NID (Chard et al., 2005)</th>
<th>Winter: +/-1 SD (≈16th%ile to 84th%ile)</th>
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</tr>
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<tbody>
<tr>
<td>K</td>
<td>14</td>
<td>0-28</td>
<td>45</td>
<td>27-63</td>
<td>56</td>
<td>38-74</td>
<td>1.31</td>
</tr>
<tr>
<td>1</td>
<td>34</td>
<td>18-50</td>
<td>53</td>
<td>36-70</td>
<td>62</td>
<td>46-78</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Numberfly Early Math Fluency Generator
http://www.interventioncentral.org

Use this free online application to design and create Early Math Fluency Probes, including:

- Quantity Discrimination
- Missing Number
- Number Identification

**Quantity Discrimination (QD)**

*Description:* The student is given a sheet of number pairs and must verbally identify the larger of the two values for each pair.

Relate the lower and higher numbers to be selected in the quantity-discrimination items:

FROM 0 TO 20

How many quantity-discrimination items should appear in each row?: 3 items

How many rows of items should appear on the student worksheet?: 8

**QD Directions:** Download directions for administering and scoring Quantity Discrimination probes, test statistics, & brief guidelines for use in an RTI process

**QD Graph:** Access a time-series graph to chart student progress using Quantity Discrimination probes

**Missing Number (MN)**

*Description:* The student is given a sheet that contains a series of 3- or 4-number sequences. In each sequence, one number is missing. The student must verbally identify the missing number.

Select the lowest and highest numbers to be selected in the missing number items:

FROM 0 TO 20

How many missing number items should appear in each row?: 3 items

How many numbers should appear in each number series?: 3 items
<table>
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<tr>
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</tr>
</tbody>
</table>
1. Curriculum-Based Measurement

• How to Set a Goal. CBM measures typically are accompanied by research norms that allow the teacher to set student performance goals.
2. Behavior Report Cards

- **What It Is.** A behavior report card is a type of rating scale that the teacher fills out on a regular basis—e.g., daily—to rate targeted student behaviors (Riley-Tillman, Chafouleas, & Briesch, 2007).
Roy: Classroom Attention

Student Name: Roy

Date: ________________

Rater: Wright

Classroom: ________________

Directions: Review each of the Behavior Report Card items below. For each item, rate the degree to which the student showed the behavior or met the behavior goal.

Roy spoke respectfully and complied with Mrs. Smith’s requests within 1 minute without argument or complaint.

Did Roy succeed in this behavior goal?

☐ YES  ☐ NO

Roy sat in class without fidgeting or squirming more than most peers.

Percentage of times Roy showed this behavior out of total opportunities to engage in it

0% . . . . 10% . . . . 20% . . . . 30% . . . . 40% . . . . 50% . . . . 60% . . . . 70% . . . . 80% . . . . 90% . . . . 100%

Roy left his seat only with permission during academic periods.

The degree to which Roy met this behavior goal

😊 1  😊 2  😊 3

Roy took notes on lecture content, capturing the essential information presented.

How well Roy did in meeting the behavior goal?

1 . . . . 2 . . . . 3

Poor  Fair  Good

I have reviewed this completed Behavior Report with my child.

Parent Signature: ___________________________ Date: ________________

Comments:
2. Behavior Report Cards

• **When to Use It.** Behavior report cards are an optimal measurement tool for teachers to use in tracking classroom behaviors.

Behavior report cards have several advantages: They are quick to complete, can be customized by the teacher to measure any observable behavior, and are an excellent vehicle for communicating classroom behavioral expectations to students and parents.
2. Behavior Report Cards

• **How to Assess and Where to Find Materials.** Classroom behaviors that can be assessed via a BRC are specific, observable behaviors that relate to such categories as general conduct (e.g., remaining in seat, calling out), compliance (e.g., following teacher directives); and academic readiness and engagement (e.g., paying attention to the teacher during a lesson, completing independent seatwork, bringing work materials to class).

• Teachers can use a free online app to create custom BRCs in PDF format.
Behavior Report Card Maker. Teachers can use this free app to create and download (in PDF format) customized Behavior Report Cards.
Behavior Report Card Maker

- Helps teachers to define student problem(s) more clearly.
- Reframes student concern(s) as replacement behaviors, to increase the likelihood for success with the academic or behavioral intervention.
- Provides a fixed response format each day to increase the consistency of feedback about the teacher’s concern(s).
- Can serve as a vehicle to engage other important players (student and parent) in defining the problem(s), monitoring progress, and implementing interventions.
2. Behavior Report Cards

- **How to Set a Goal.** As BRCs are customized rating scales, the teacher selects a response format appropriate to the behavior. The teacher also selects a threshold for appropriate behavior, typically a behavior rating representative of ‘typical’ students in the classroom.

<table>
<thead>
<tr>
<th>Roy completed and turned in his assigned class work on time.</th>
<th>Mon / / /</th>
<th>Tue / / /</th>
<th>Wed / / /</th>
<th>Thu / / /</th>
<th>Fri / / /</th>
</tr>
</thead>
<tbody>
<tr>
<td>Circle the degree to which Roy met the behavior goal?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

2
Activity: Data Collection

At your tables:

Review the 2 classroom data collection methods discussed at this workshop.

Discuss how you might use either of these methods in your classrooms.

Classroom Assessment Methods

1. Curriculum-Based Measurement
2. Behavior Report Cards

www.interventioncentral.org
Identifying the Academic Problem. How can teachers describe academic problems in a manner that increases the chances of finding interventions that work?
Activity: Describe an Academic Problem: Part 1

Each member of your group will:

• **select one student** in your room who you believe needs a Tier 1 academic intervention.

• **write a brief description** of that student’s academic problem.

• **share** that description with **your group** partners.
Academic Problem Identification: 3 Steps (pp. 5-7)

1. Describe the problem.
2. Format the problem description as a 3-part problem-identification statement.
3. Choose a hypothesis for what is the most likely cause of the problem.
Academic Problem Identification: 3 Steps

1. Describe the problem.

TIP 1: When available, use research-derived checklists that break global academic skills into more specific components. Evaluate the student’s skills for each of these components to locate the one that is the chief blocker to success.
Big Ideas in Reading

1. "Phonemic Awareness: The ability to hear and manipulate sounds in words.

2. Alphabetic Principle [Phonics]: The ability to associate sounds with letters and use these sounds to form words.

3. Fluency with Text: The effortless, automatic ability to read words in connected text.

4. Vocabulary: The ability to understand (receptive) and use (expressive) words to acquire and convey meaning.

5. Comprehension: The complex cognitive process involving the intentional interaction between reader and text to convey meaning.”

Academic Problem Identification: 3 Steps

1. Describe the problem.

   TIP 2: Task-analyze a global academic task into the component skills necessary for success on the larger task. Use this task-analysis checklist to locate the student academic-performance blocker.
Academic Problem Identification: 3 Steps

2. Format the problem description as a 3-part problem-identification statement.

The process of writing this statement can help to make the description of the academic behavior more specific and also prompts the teacher to think about an appropriate performance goal.
### 3-Part Problem ID Statement: Examples

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Problem Description</th>
<th>Typical/Expected Level of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>For science homework...</td>
<td>Tye turns in assignments an average of 50% of the time...</td>
<td>while the classroom median rate of homework turned in is 90%.</td>
</tr>
</tbody>
</table>
### 3-Part Problem ID Statement: Examples

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Problem Description</th>
<th>Typical/Expected Level of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>When given a 2-minute timed worksheet of</td>
<td>Brad computes an average of 21 correct digits...</td>
<td>while the math-computation benchmark norm for Brad's grade level is 42 correct digits.</td>
</tr>
<tr>
<td>multiplication facts 0-9...</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 3-Part Problem ID Statement: Examples

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Problem Description</th>
<th>Typical/Expected Level of Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>When completing an introductory-level algebra word problem...</td>
<td>Ann is unable to translate that word problem into an equation with variables...</td>
<td>while most peers in her class have mastered this skill.</td>
</tr>
</tbody>
</table>
Activity: Describe an Academic Problem: Part 2

- Review the models for 3-part problem-ID statements that appear on pp. 5-6 of your handout.
- Draw a blank 3-part problem-ID table:
- Rewrite your academic problem statement using this 3-part format.
- Share your completed statement with your group.
Academic Problem Identification: 3 Steps

3. Choose a hypothesis for what is the most likely cause of the problem.
## Academic Problems: Hypotheses & Recommendations

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skill Deficit.</strong> The student has not yet acquired the skill.</td>
<td>Provide direct, explicit instruction to acquire the skill. Reinforce the student for effort and accuracy.</td>
</tr>
</tbody>
</table>
### Academic Problems: Hypotheses & Recommendations

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fluency Deficit.</strong> The student has acquired the basic skill but is not yet proficient.</td>
<td>Provide opportunities for the student to practice the skill and give timely performance feedback. Reinforce the student for fluency as well as accuracy.</td>
</tr>
</tbody>
</table>
**Academic Problems: Hypotheses & Recommendations**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retention Deficit.</strong> The student can acquire the skill but has difficulty retaining it over an extended period.</td>
<td>Give the student frequent opportunities for practice to entrench a skill and help the student to retain it over time. Begin by scheduling more numerous practice episodes within a short time ('massed review') to promote initial fluency and then strengthen longer-term skill retention by scheduling additional periodic review ('distributed review') across longer spans of several weeks or more.</td>
</tr>
</tbody>
</table>
## Academic Problems: Hypotheses & Recommendations

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Recommendation</th>
</tr>
</thead>
</table>
| *Endurance Deficit.* The student can do the skill but engages in it only for brief periods. | Consider these ideas to boost endurance:  
- In structuring lessons or independent work, gradually lengthen the period of time that the student spends in skills practice or use.  
- Have the student self-monitor active engagement in skill-building activities—setting daily, increasingly ambitious work goals and then tracking whether he or she successfully reaches those goals. |
## Academic Problems: Hypotheses & Recommendations

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generalization Deficit.</strong> The student possesses the basic skill but fails to use it across appropriate situations or settings.</td>
<td>Train the student to identify the relevant characteristics of situations or settings when the skill should be used. Provide incentives for the student to use the skill in the appropriate settings.</td>
</tr>
<tr>
<td>Hypothesis</td>
<td>Recommendation</td>
</tr>
<tr>
<td>------------</td>
<td>----------------</td>
</tr>
<tr>
<td><strong>Motivation (Performance) Deficit.</strong> The student is capable of performing the skill and can identify when use of the skill is appropriate—but nonetheless is not motivated to use the skill.</td>
<td>Use various strategies to engage the student in the skill (e.g., select high-interest learning activities; offer incentives to the student for successful use of the skill, etc.).</td>
</tr>
</tbody>
</table>
Activity: Describe an Academic Problem: Part 3

- **Study** the list of hypotheses for academic problems on p. 6 of your handout.
- Select a hypothesis that you believe *best explains* your student’s problem. (If you find more than 1 hypothesis that fits, record all that could apply.)
- **Share** your selected hypothesis—and your rationale for choosing it—with your group.

### Hypotheses for Academic Problems

- Skill Deficit
- Fluency Deficit
- Retention Deficit
- Endurance Deficit
- Generalization Deficit
- Motivation (Performance) Deficit

www.interventioncentral.org
The Classroom Teacher as ‘First Responder’. What are the steps that a teacher would follow to implement a classroom intervention plan?
Response to Intervention

Tier 1: Teacher Consultation/Team

• At Tier 1, problem-solving occurs when the teacher meets briefly with a team (e.g., grade-level team, instructional team, department) or a consultant.

• The teacher defines the student problem(s), selects intervention(s), decides how to monitor the intervention, and documents the intervention plan—with the guidance of the team or consultant.

• The teacher meets again with team or consultant several weeks later to check on the status of the intervention.

• The classroom teacher is the person primarily responsible for the integrity of the Tier 1 intervention plan.

• The numbers of students requiring Tier 1 interventions depends on district decision-rules defining classroom ‘at-risk’ status.
How To: Create a Written Record of Classroom Interventions

Classroom Intervention Planning Sheet: Math Computation Example

This worksheet is designed to help teachers quickly create classroom plans for academic and behavioral interventions. (For a tutorial on how to fill out this sheet, review the accompanying directions.)

Case Information

What to Write: Record the important case information, including student, person delivering the intervention, date of plan, start and end dates for the intervention plan, and the total number of instructional weeks that the intervention will run.

Student: John Samuelson-Gr 4
Interventionist(s): Mrs. Kennedy, classroom teacher
Date Intervention Plan Was Written: 10 October 2012

Date Intervention is to Start: M 8 Oct 2012
Date Intervention is to End: F 16 Nov 2012
Total Number of Instructional Weeks: 6 weeks

Description of the Student Problem: Slow math computation speed (computes multiplication facts at 12 correct digits in 2 minutes, when typical gr 4 peers compute at least 24 correct digits).

Intervention

What to Write: Write a brief description of the intervention(s) to be used with the student. TIP: If you have a script for the intervention, you can just write its name here and attach the script to this sheet.

Math Computation Time Drill (Rhymer et al., 2002)
Exploitation of drill exercises a method to boost students’ recall of computation facts: (1) The teacher hands out the worksheet. Students are instructed that they will have 3 minutes to work on problems on the sheet. (2) The teacher starts the stopwatch and tells the students to start work. (3) At the end of the first minute in the 3-minute span, the teacher calls ‘time’, stops the stopwatch, and tells the students to underline the last number written and to put their pens in the air. Then students are told to resume work and the teacher restarts the stopwatch. (4) This process is repeated at the end of minutes 2 and 3. (5) At the conclusion of the 3 minutes, the teacher collects the student worksheets.

Materials

What to Write: List out materials (e.g., flashcards or resources (e.g., internet-connected computer) needed to carry out the intervention.

Use math worksheet generator on www.interventioncentral.org to create all time-drill and assessment materials.

Training

What to Write: Note what training—if any—is needed to prepare adult(s) and/or the student to carry out the intervention.

Meet with the student at least once before the intervention to familiarize with the time-drill technique and timed math computation assessments.

Progress-Monitoring

What to Write: Select a method to monitor student progress on the intervention. For the method selected, record what type of data is to be used, enter student baseline (starting-point) information, calculate an intervention outcome goal, and note how frequently you plan to monitor the intervention. TIP: Several ideas for classroom data collection appear on the right side of this table.

Type of Data Used to Monitor: Curriculum-based measurement: math computation assessments: 2 minute single-skill probes

Baseline: 12 correct digits per 2 minute probe
Outcome Goal: 24 correct digits per 2 minute probe

How often will data be collected? (e.g., daily, every other day, weekly): WEEKLY
Creating a Written Record of Classroom Interventions: Form

- **Case information.** The opening section of the form includes general information about the case, including:
  - Target student
  - Teacher/interventionist
  - Date of the intervention plan
  - Start and end dates for the intervention
  - Description of the student problem to be addressed

### Case Information

<table>
<thead>
<tr>
<th>What to Write:</th>
<th>Record the important case information, including student, person delivering the intervention, date of plan, start and end dates for the intervention plan, and the total number of instructional weeks that the intervention will run.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student:</td>
<td>John Samuelson-Gr 4</td>
</tr>
<tr>
<td>Interventionist(s):</td>
<td>Mrs. Kennedy, classroom teacher</td>
</tr>
<tr>
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<td>10 October 2012</td>
</tr>
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<td>F 16 Nov 2012</td>
</tr>
<tr>
<td>Total Number of Intervention Weeks:</td>
<td>6 weeks</td>
</tr>
<tr>
<td>Description of the Student Problem:</td>
<td>Slow math computation speed (computes multiplication facts at 12 correct digits in 2 minutes, when typical gr 4 peers compute at least 24 correct digits).</td>
</tr>
</tbody>
</table>
Creating a Written Record of Classroom Interventions: Form

- **Intervention.** The teacher describes the evidence-based intervention(s) that will be used to address the identified student concern(s). As a shortcut, the instructor can simply write the intervention name in this section and attach a more detailed intervention script/description to the intervention plan.

<table>
<thead>
<tr>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What to Write:</strong> Write a brief description of the intervention(s) to be used with this student. TIP: If you have a script for this intervention, you can just write its name here and attach the script to this sheet.</td>
</tr>
<tr>
<td><strong>Math Computation Time Drill.</strong> (Rhymer et al., 2002) - See attached description</td>
</tr>
</tbody>
</table>
Creating a Written Record of Classroom Interventions: Form

- **Materials.** The teacher lists any materials (e.g., flashcards, wordlists, worksheets) or other resources (e.g., Internet-connected computer) necessary for the intervention.

<table>
<thead>
<tr>
<th>Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What to Write:</strong> Jot down materials (e.g., flashcards) or resources (e.g., Internet-connected computer) needed to carry out this intervention.</td>
</tr>
<tr>
<td><strong>Use math worksheet generator on</strong> <a href="http://www.interventioncentral.org">www.interventioncentral.org</a> to create all time-drill and assessment materials.</td>
</tr>
</tbody>
</table>
Creating a Written Record of Classroom Interventions: Form

- **Training.** If adults and/or the target student require any training prior to the intervention, the teacher records those training needs in this section of the form.

<table>
<thead>
<tr>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What to Write:</strong> Note what training—if any—is needed to prepare adult(s) and/or the student to carry out the intervention.</td>
</tr>
<tr>
<td>Meet with the student at least once before the intervention to familiarize with the time-drill technique and timed math computation assessments.</td>
</tr>
</tbody>
</table>
Creating a Written Record of Classroom Interventions: Form

- **Progress-Monitoring.** The teacher selects a method to monitor student progress during the intervention, to include:
  - what type of data is to be used
  - collects and enters student baseline (starting-point) information
  - calculates an intervention outcome goal
  - The frequency that data will be collected.

<table>
<thead>
<tr>
<th>Progress-Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What to Write:</strong> Select a method to monitor student progress on this intervention. For the method selected, record what type of data is to be used, enter student baseline (starting-point) information, calculate an intervention outcome goal, and note how frequently you plan to monitor the intervention. Tip: Several ideas for classroom data collection appear on the right side of this table.</td>
</tr>
<tr>
<td><strong>Type of Data Used to Monitor:</strong> Curriculum-based measurement: math computation assessments: 2 minute single-skill probes</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
</tr>
<tr>
<td>12 correct digits per 2 minute probe</td>
</tr>
<tr>
<td><strong>How often will data be collected?</strong> (e.g., daily, every other day, weekly):</td>
</tr>
<tr>
<td>WEEKLY</td>
</tr>
<tr>
<td><strong>Ideas for Intervention Progress-Monitoring</strong></td>
</tr>
<tr>
<td>- Existing data: grades, homework logs, etc.</td>
</tr>
<tr>
<td>- Cumulative mastery log</td>
</tr>
<tr>
<td>- Rubric</td>
</tr>
<tr>
<td>- Curriculum-based measurement</td>
</tr>
<tr>
<td>- Behavior reportcard</td>
</tr>
<tr>
<td>- Behavior checklist</td>
</tr>
</tbody>
</table>
How To: Create a Written Record of Classroom Interventions

**Classroom Intervention Planning Sheet: Math Computation Example**

This worksheet is designed to help teachers quickly create classroom plans for academic and behavioral interventions. (For a tutorial on how to fill out this sheet, review the accompanying directions.)

### Case Information
- **Student:** John Samuelson Gr 4
- **Interventionist(s):** Mrs. Kennedy, classroom teacher
- **Date Intervention Plan Was Written:** 10 October 2012
- **Date Intervention is to Start:** M 8 Oct 2012
- **Date Intervention is to End:** F 16 Nov 2012
- **Total Number of Intervention Weeks:** 6 weeks

**Description of the Student Problem:** Slow math computation speed (computes multiplication facts at 12 correct digits in 2 minutes, when typical gr 4 peers compute at least 24 correct digits).

### Intervention
- **What to Write:** Write a brief description of the intervention(s) to be used with the student. TIP: If you have a script for the intervention, you can just write its name here and attach the script to the sheet.

**Math Computation Time Drill (Rhymer et al., 2002)**

Exploit time-drills as a method to boost students’ rate of responding on arithmetic-related worksheets: (1) The teacher hands out the worksheet. Students are instructed that they will have 3 minutes to work on problems on the sheet. (2) The teacher starts the stopwatch and tells the students to start work. (3) At the end of the first minute in the 3-minute span, the teacher calls “time,” stops the stopwatch, and tells the students to underline the last number written and to put their pens in the air. Then students are told to resume work and the teacher restarts the stopwatch. (4) This process is repeated at the end of minutes 2 and 3. (5) At the conclusion of the 3 minutes, the teacher collects the students' worksheets.

### Materials
- **What to Write:** Jot down materials (e.g., flashcards) or resources (e.g., Internet-connected computer) needed to carry out the intervention.

Use math worksheet generator on [www.interventioncentral.org](http://www.interventioncentral.org) to create all time-drill and assessment materials.

### Training
- **What to Write:** Note what training—If any—is needed to prepare adult(s) and/or the student to carry out the intervention.

Meet with the student at least once before the intervention to familiarize with the time-drill technique and timed math computation assessments.

### Progress-Monitoring
- **What to Write:** Select a method to monitor student progress on the intervention. For the method selected, record what type of data is to be used, enter student baseline (starting-point) information, calculate an intervention outcome goal, and note how frequently you plan to monitor the intervention. Tip: Several ideas for classroom data collection appear on the right side of this table.

**Type of Data Used to Monitor:** Curriculum-based measurement: math computation assessments: 2 minute single-skill probes

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Outcome Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 correct digits per 2 minute probe</td>
<td>24 correct digits per 2 minute probe</td>
</tr>
</tbody>
</table>

**Ideas for Intervention Progress-Monitoring:**
- Exit data: grades, homework logs, etc.
- Cumulative mastery log
- Rubric
- Curriculum-based measurement
- Behavior report card
- Behavior checklist
Documenting Classroom (Tier 1) Interventions: Discuss how you might use a form like the one demonstrated at this training to keep a record of your own classroom interventions.
Response to Intervention

Tier 1: Teacher Consultation/Team

- At Tier 1, problem-solving occurs when the teacher meets briefly with a team (e.g., grade-level team, instructional team, department) or a consultant.
- The teacher defines the student problem(s), selects intervention(s), decides how to monitor the intervention, and documents the intervention plan—with the guidance of the team or consultant.
- The teacher meets again with team or consultant several weeks later to check on the status of the intervention.
- The classroom teacher is the person primarily responsible for the integrity of the Tier 1 intervention plan.
- The numbers of students requiring Tier 1 interventions depends on district decision-rules defining classroom ‘at-risk’ status.
Access PPTs and other materials from this workshop at:

http://www.interventioncentral.org/springsschool
Chromebook Activity: Explore or Create Resources

In your groups:

• Go to the webpage created for this workshop:
  
  http://www.interventioncentral.org/springsschool

• Select one of the tasks on the right to complete.

Chromebook Activity Choices

1. **Task:** Review academic intervention ideas.
   
   **Goal:** Select at least 1 to try immediately in your classroom.

2. **Task:** Browse methods of data collection.
   
   **Goal:** Create & download sample materials from at least 1 of the online apps.

3. **Task:** Review the Classroom Intervention Planning Sheet.
   
   **Goal:** Review the sheet and decide how you might use it in your own classroom practice.
Defining Intervention-Related Terms. What are the definitions for different types of student instruction and support? p. 11
Core Instruction, Interventions, Instructional Adjustments & Modifications: Sorting Them Out

- **Core Instruction.** Those instructional strategies that are used routinely with all students in a general-education setting are considered ‘core instruction’. High-quality instruction is essential and forms the foundation of classroom academic support. NOTE: While it is important to verify that a struggling student receives good core instructional practices, those routine practices do not ‘count’ as individual student interventions.
Core Instruction, **Interventions**, Instructional Adjustments & Modifications: Sorting Them Out

- **Intervention.** An academic *intervention* is a strategy used to teach a new skill, build fluency in a skill, or encourage a child to apply an existing skill to new situations or settings. An intervention can be thought of as “a set of actions that, when taken, have demonstrated ability to change a fixed educational trajectory” (Methe & Riley-Tillman, 2008; p. 37).
Core Instruction, Interventions, Instructional
Adjustments & Modifications: Sorting Them Out

Intervention: Example

- **Question Generation.** The student is taught to locate or generate main idea sentences for each paragraph in a passage and record those ‘gist’ sentences on index cards for later review.
Instructional Adjustment/Accommodation. An instructional adjustment (also known as an 'accommodation') is intended to help the student to fully access and participate in the general-education curriculum without changing the instructional content and without reducing the student’s rate of learning (Skinner, Pappas & Davis, 2005).

An instructional adjustment removes barriers to learning while still expecting that students will master the same instructional content as their typical peers.
Core Instruction, Interventions, Instructional Adjustments & Modifications: Sorting Them Out

Instructional Adjustment/Accommodation: Example.

- **Chunking.** The teacher breaks a larger assignment into smaller ‘chunks’ and provides a student with performance feedback and praise for each completed ‘chunk’ of assigned work (Skinner, Pappas & Davis, 2005).

- **Choice in Mode of Task Completion.** The teacher allows the student two or more choices for completing a given academic task. For example, a student may be given the option to use a computer keyboard to write an essay instead of writing it by hand -- or to respond orally to math-facts on flashcards rather than recording answers on a math worksheet (Kern & Clemens, 2007).
Core Instruction, Interventions, Instructional Adjustments & Modifications: Sorting Them Out

- **Modification.** A modification changes the expectations of what a student is expected to know or do—typically by lowering the academic standards against which the student is to be evaluated.

Modifications are generally not included on a general-education student’s classroom intervention plan—because lowering academic expectations is likely to result in these students falling further behind rather than closing the performance gap.
Modification: Examples.

- **Reduced Amount of Work on a Fluency-Building Assignment.** A student is given 5 math computation problems for practice on a math-computation fluency task instead of the 20 problems assigned to the rest of the class.

- **Open-Book Test for One.** Allowing a single student to consult course notes during a test when peers are not permitted to do so.
A Sampling of Accommodation Ideas
Accommodations: Sampling

- The following is a sampling of accommodations that could be used to support general-education students in the area of ‘instruction’, taken from the free Accommodations Finder application on Intervention Central (www.interventioncentral.org).

- A link to this resource also appears on the conference web page.
ARRANGE CLASSROOM SEATING. Arrange classroom seating to elicit the desired student behavior: (1) to promote higher rates of student engagement and on-task behavior, arrange seats in traditional rows facing the instructor; (2) to promote discussion and student questions, arrange seats in a semi-circle.
Instructional Adjustments/Accommodations

- CREATE LOW-DISTRACTION WORK AREAS. For students who are off-task during independent seatwork, set up a study carrel in the corner of the room or other low-distraction work area. The teacher can then either direct the distractible student to use that area whenever independent seatwork is assigned or can permit the student to choose when to use the area.

Instructional Adjustments/Accommodations

• DIRECTIONS: ASSIGN A BUDDY. Assign a study buddy who is willing and able to repeat and explain directions to the student.

Instructional Adjustments/Accommodations

- PROVIDE CLASSROOM STORAGE SPACE. Provide the student with a section of shelf or container in the classroom to store work materials required for class.

Response to Intervention

Instructional Adjustments/Accommodations

• DEVELOP A STUDENT SELF-CHECK ERROR CHECKLIST. Meet with the student and generate a short list of the most common errors that the student habitually makes on course assignments (e.g., ‘In writing assignments, some words are illegible’, ‘Not all words at sentence beginning are capitalized’.) Format that list as a customized error-correction checklist. Instruct the student to review completed assignments using the error-correction checklist before turning in the work.

Instructional Adjustments/Accommodations

• PROMOTE STUDENT-DEVELOPED STUDY SCHEDULES. Sit with the student to develop daily (and perhaps weekly and monthly) schedules to study material from a course or content-area. Meet periodically with the student to update these study schedules, gradually placing full responsibility on the student to create the schedule independently and bring to the instructor for review.

Response to Intervention

Instructional Adjustments/Accommodations: Instruction

• USE ‘VISUAL BLOCKERS’. Encourage the student to reduce distractions on assignments by using a blank sheet of paper or similar aid to cover sections of the page that the student is not currently working on.

Instructional Adjustments/Accommodations: Instruction

• TEST: ALLOW OPEN-BOOK/OPEN-NOTES. In situations in which students are being tested on their ability to apply—rather than memorize—course information or concepts, allow students full access to their textbooks and/or notes during the test.

Instructional Adjustments/Accommodations: Instruction

• TEST: EVALUATE MORE FREQUENTLY. Assess student mastery of course content frequently (e.g., weekly) through shorter quizzes in place of less-frequent, more-comprehensive tests. More frequent, smaller assessments can make study more manageable for students, build strong habits of continual study and review, and provide more formative assessment information for the teacher.

Instructional Adjustments/Accommodations: Instruction

- **TEST:** HIGHLIGHT KEY WORDS IN DIRECTIONS. When preparing test directions, highlight key words or phrases in bold or underline to draw student attention.

RTI & the Classroom: Training Teachers in Definitions of Intervention Terms

In your ‘elbow groups’, discuss the difference between ‘instructional adjustment (accommodation)’ and ‘modification’ (handout: p. 11).

Discuss whether – in your school – general-education students may be receiving modified core instruction. If YES, brainstorm ideas to provide appropriate support to students without modifying instruction.
AccommodationFinder
http://www.interventioncentral.org/tools/accommodationfinder

This application allows the user to browse a set of 60+ classroom accommodations to put together a unique plan for a struggling learner.
Activity: Next Steps

In your groups:

- Review the information presented at today’s workshop on classroom intervention and data collection.
- Select 1-2 next steps that each of you would like to take to apply this information in your classroom.

Academic Intervention Workshop

- Motivating Students: Growth Feedback
- Defining Academic Problems
- Sample Academic Intervention Ideas
- Sample Data Collection Methods
- Documenting Intervention Plans
- Using Classroom Accommodations—While Avoiding Modifications
### Tools for Teacher as RTI

**‘First Responder’: A Mosaic**

1. **Knowledge of Teacher’s Role in Supporting RTI**
2. **Delivery of Strong Core Instruction**
3. **Skill in Defining Student Academic Problems in Clear & Specific Terms**
4. **Capacity to Create Classroom (Tier 1) Academic Intervention Plans**
5. **Access to Research-Supported Tier 1 Intervention Ideas**
6. **Ability to Set Intervention Goals and Collect Data to Monitor Classroom Interventions**