RTI & Academics: Evidence-Based Interventions for Difficult-to-Teach Students

Jim Wright
www.interventioncentral.org

INTERVENTION CENTRAL

Response to Intervention

Intervention Central
www.interventioncentral.org

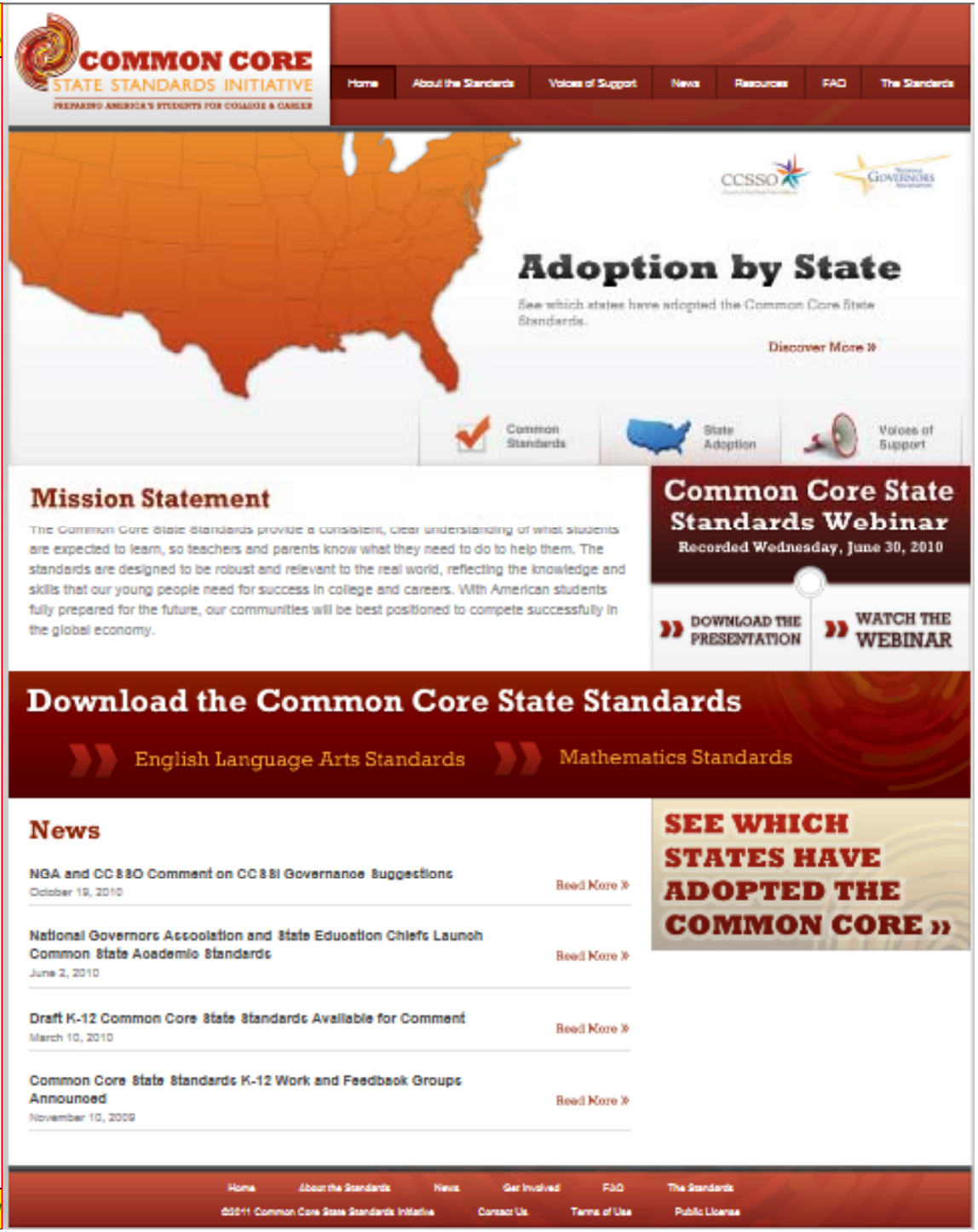
Past and present workshop PPTs and handout available at:

http://www.interventioncentral.org/canisius

Res

Common Core State Standards Initiative
http://www.corestandards.org/

View the set of Common Core Standards for English Language Arts (including writing) and mathematics being adopted by states across America.



w

Common Core State Standards: Supporting Different Learners in Reading

"The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students."

Source: *National Governors Association Center for Best Practices and Council of Chief State School Officers. (2010). Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects.. Retrieved on September 23, 2012, from http://www.corestandards.org/; p. 6.*

Common Core State Standards: Supporting Different Learners in Reading

"It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post–high school lives."

Source: *National Governors Association Center for Best Practices and Council of Chief State School Officers. (2010). Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects.. Retrieved on September 23, 2012, from http://www.corestandards.org/; p. 6.*

RTI: Evidence-Based Interventions

RTI Case Examples: What does RTI look like in the general-education classroom?

Tier 1 Case Example for the Primary Grades: Colin: **Letter Naming Fluency**

AIMSweb Cut-Points: Using National Aggregate Sample

- **Low Risk:** At or above the 25th percentile: *Core instruction alone is sufficient for the student.*
- **Some Risk:** 10th to 24th percentile: *Student will benefit from additional intervention, which may be provided by the classroom teacher or other provider (e.g., reading teacher).*
- **At Risk:** Below 10th percentile : *Student requires intensive intervention, which may be provided by the classroom teacher or other provider (e.g., reading teacher).*

Case Example: Letter Naming

The Concern

- In a mid-year (Winter) school-wide screening for Letter Naming Fluency, a first-grade student new to the school, Colin, was found have moderate delays when compared to peers. In his school, Colin fell below the 25th percentile compared with peers (AIMSweb norms). According to the benchmark norms, a student at the 25th percentile should read at least 38 letters per minute. Colin was able to read only 27 letters per minute. (NOTE: These results place Colin between the 10th and 25th percentile, a mild level of deficit—'Some Risk'.)
- Screening results, therefore, suggested that Colin has problems with Letter Naming. However, more information is needed to better understand this student academic delay.

AIMSweb Letter Naming Fluency Norms: Gr 1

25th percentile for Winter Screening: 38 letters per minute

Colin's Performance: 27 letters per minute

AIMSweb® Growth Table
Letter Naming Fluency
Multi-Year Aggregate
2006-2007 School Year

		Fall		Winter		Spring		
Grade	Percentile	Num	LNC	Num	LNC	Num	LNC	ROI
1	90	77585	63	5047	74	3286	82	0.5
	75		53		63		70	0.5
	50		41		52		57	0.4
	25		29		38		43	0.4
	10		18		19		25	0.2
	Mean		41		49		55	
	StdDev		18		21		23	

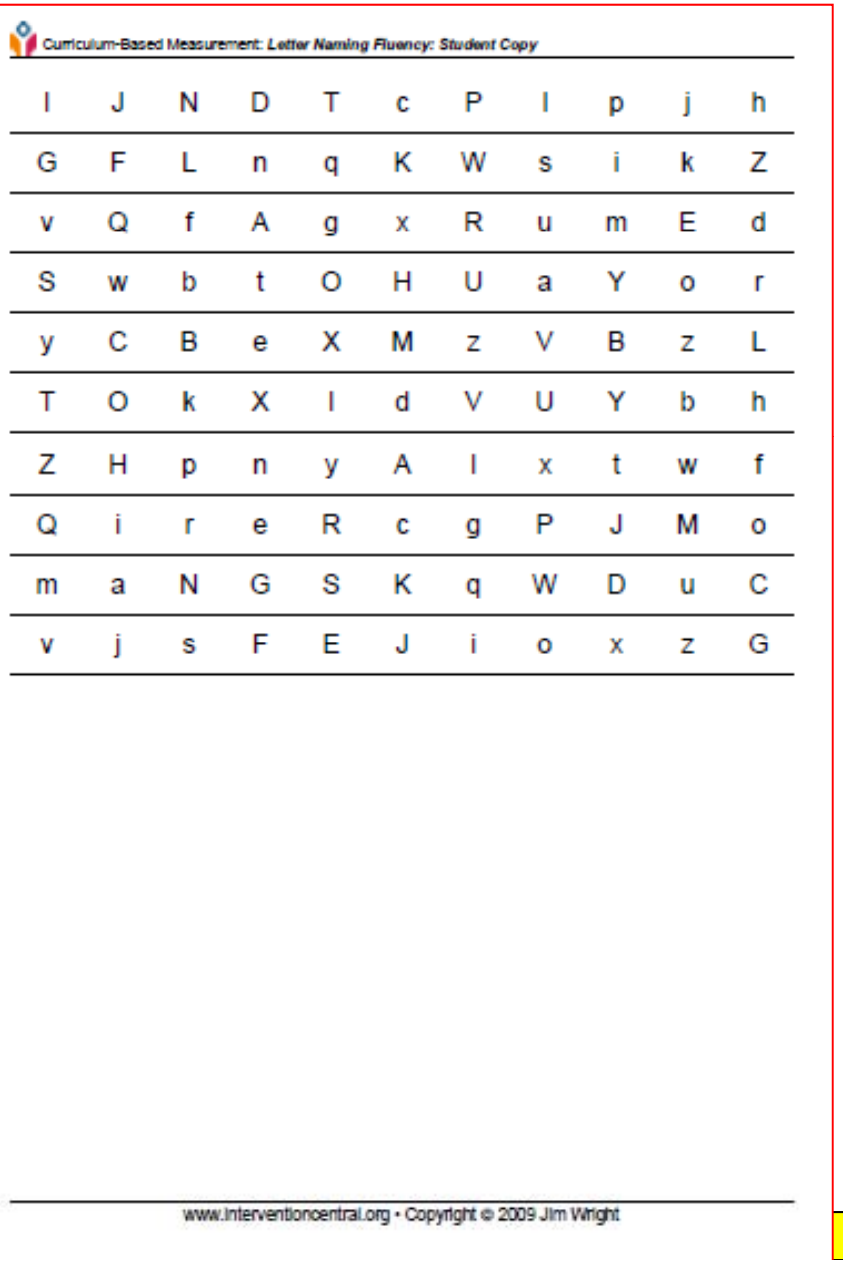
Case Example: Letter Naming

Instructional Assessment

- Colin's teacher, Ms. Tessia, sat with him and checked his letter knowledge. She discovered that, at baseline, Colin knew 23 lower-case letters and 19 upper-case letters. (Ms. Tessia defined 'knows a letter" as: "When shown the letter, the student can correctly give the name of the letter within 3 seconds.")
- Based on her findings, Ms. Tessia decided that Colin was still acquiring skill at letter names. He needed direct-teaching activities to learn to identify all of the letters.

Case Example: Letter Naming

Created at
www.interventioncentral.org



Curriculum-Based Measurement: *Letter Naming Fluency: Student Copy*

I	J	N	D	T	c	P	l	p	j	h
G	F	L	n	q	K	W	s	i	k	Z
v	Q	f	A	g	x	R	u	m	E	d
S	w	b	t	O	H	U	a	Y	o	r
y	C	B	e	X	M	z	V	B	z	L
T	O	k	X	l	d	V	U	Y	b	h
Z	H	p	n	y	A	l	x	t	w	f
Q	i	r	e	R	c	g	P	J	M	o
m	a	N	G	S	K	q	W	D	u	C
v	j	s	F	E	J	i	o	x	z	G

Case Example: Letter Naming

Intervention

- Ms. Tessia decided to use 'incremental rehearsal' (Burns, 2005) as an intervention for Colin. This intervention benefits students who are still acquiring their math facts, sight words, or letters.

  Students start by reviewing a series of 'known' cards. Then the instructor adds 'unknown' items to the card pile one at a time, so that the student has a high ratio of known to unknown items. This strategy promotes near-errorless learning.
- Colin received this intervention daily, for 10 minutes.

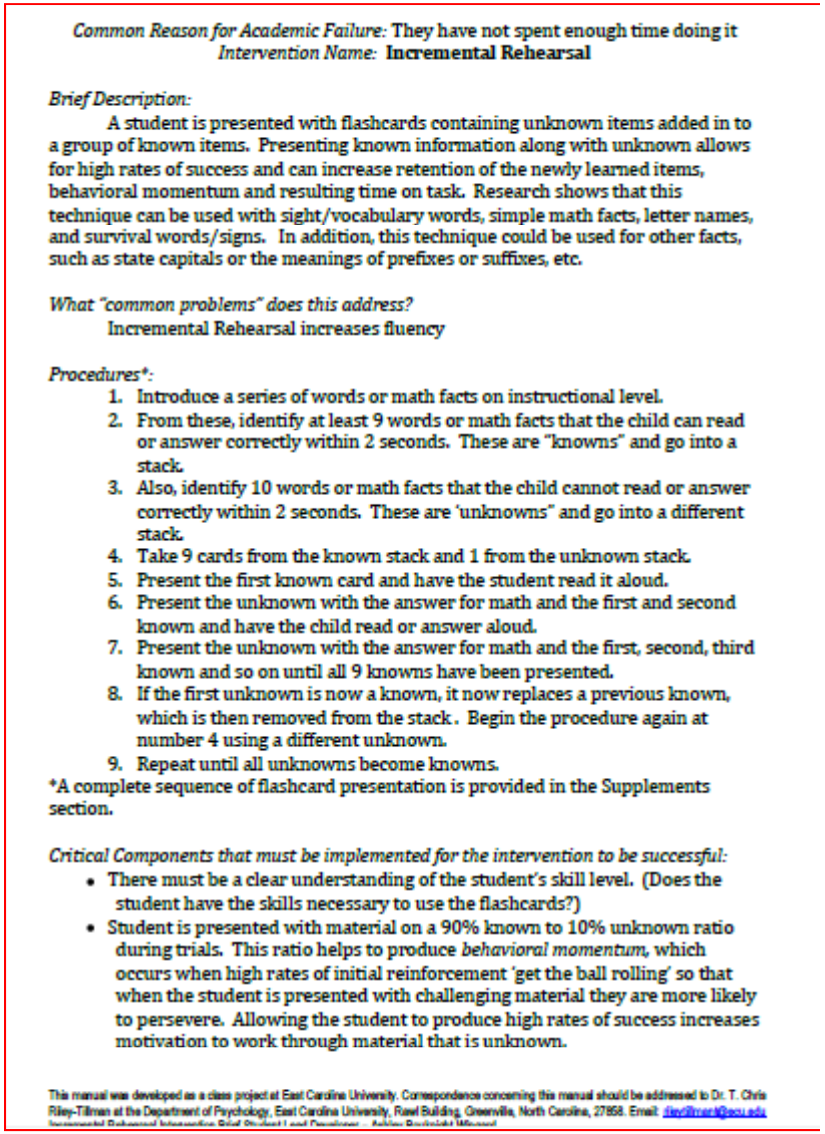
- NOTE: A paraprofessional, adult volunteer, or other non-instructional personnel can be trained to deliver this intervention.

Source: Burns, M. K. (2005). Using incremental rehearsal to increase fluency of single-digit multiplication facts with children identified as learning disabled in mathematics computation. Education and Treatment of Children, 28, 237-249.

East Carolina University Evidence-Based Intervention Project

http://ebi.missouri.edu/wp-content/uploads/2011/03/Incremental-Rehearsal-Intervention-Brief-2.pdf

Incremental Rehearsal Guidelines



Common Reason for Academic Failure: They have not spent enough time doing it
Intervention Name: **Incremental Rehearsal**

Brief Description:

A student is presented with flashcards containing unknown items added in to a group of known items. Presenting known information along with unknown allows for high rates of success and can increase retention of the newly learned items, behavioral momentum and resulting time on task. Research shows that this technique can be used with sight/vocabulary words, simple math facts, letter names, and survival words/signs. In addition, this technique could be used for other facts, such as state capitals or the meanings of prefixes or suffixes, etc.

What "common problems" does this address?

Incremental Rehearsal increases fluency

Procedures:*

1. Introduce a series of words or math facts on instructional level.
2. From these, identify at least 9 words or math facts that the child can read or answer correctly within 2 seconds. These are "knowns" and go into a stack.
3. Also, identify 10 words or math facts that the child cannot read or answer correctly within 2 seconds. These are 'unknowns" and go into a different stack.
4. Take 9 cards from the known stack and 1 from the unknown stack.
5. Present the first known card and have the student read it aloud.
6. Present the unknown with the answer for math and the first and second known and have the child read or answer aloud.
7. Present the unknown with the answer for math and the first, second, third known and so on until all 9 knowns have been presented.
8. If the first unknown is now a known, it now replaces a previous known, which is then removed from the stack. Begin the procedure again at number 4 using a different unknown.
9. Repeat until all unknowns become knowns.

*A complete sequence of flashcard presentation is provided in the Supplements section.

Critical Components that must be implemented for the intervention to be successful:

- There must be a clear understanding of the student's skill level. (Does the student have the skills necessary to use the flashcards?)
- Student is presented with material on a 90% known to 10% unknown ratio during trials. This ratio helps to produce *behavioral momentum*, which occurs when high rates of initial reinforcement 'get the ball rolling' so that when the student is presented with challenging material they are more likely to persevere. Allowing the student to produce high rates of success increases motivation to work through material that is unknown.

This manual was developed as a class project at East Carolina University. Correspondence concerning this manual should be addressed to Dr. T. Chris Riley-Tillman at the Department of Psychology, East Carolina University, Rawl Building, Greenville, North Carolina, 27858. Email: [illegible]

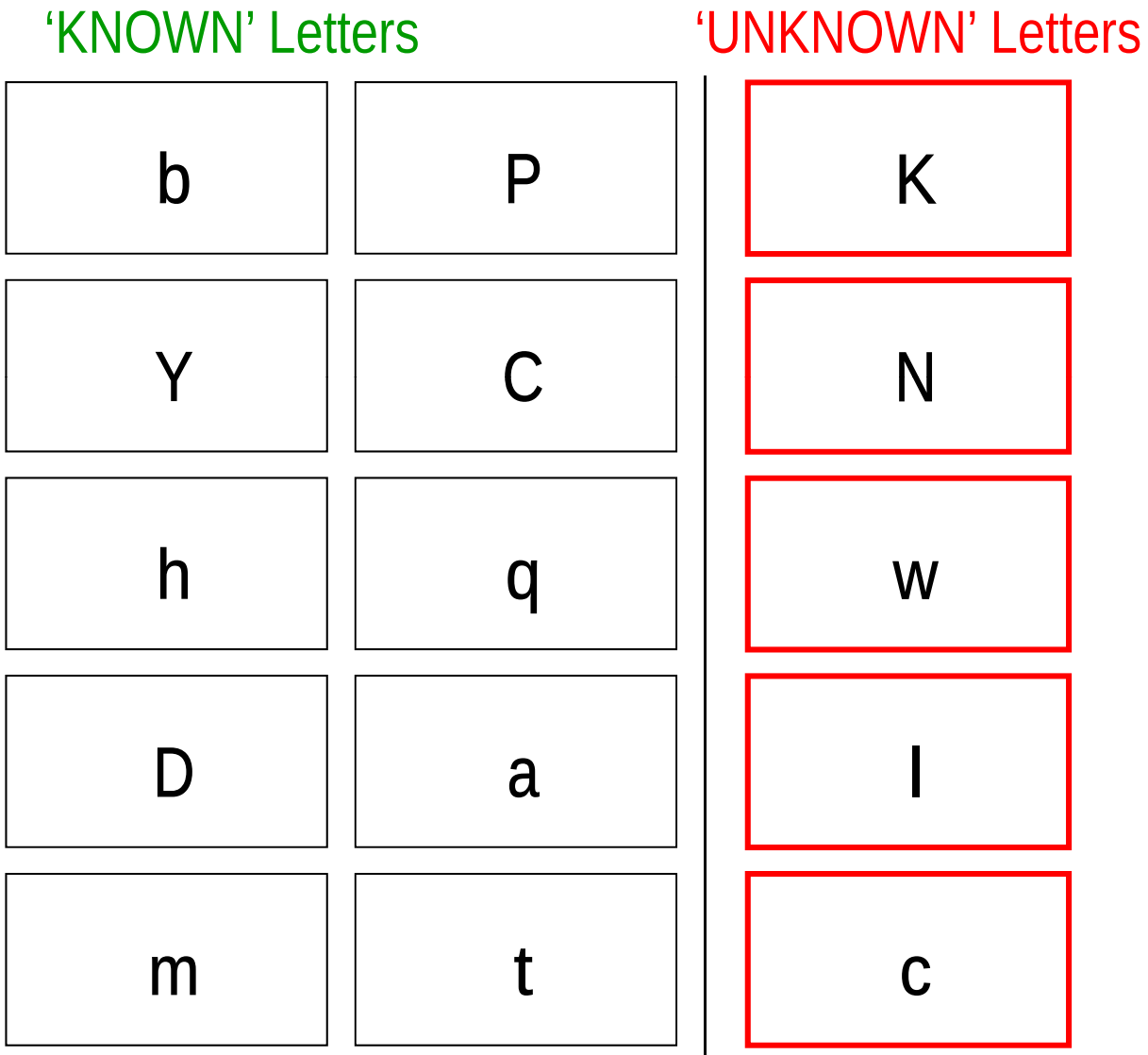
Acquisition Stage: Incremental Rehearsal of Letter Names (Available On Conference Page)

Step 1: The tutor writes down on a series of flash cards the letters that the student needs to learn.

K	P	b
t	m	c
D	I	a
w	q	h
N	C	Y

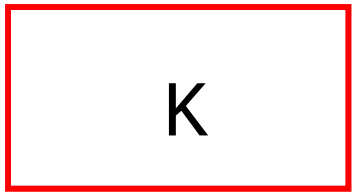
Incremental Rehearsal of Letter Names

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.



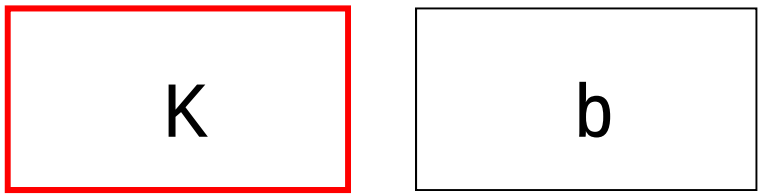
Incremental Rehearsal of Letter Names

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.



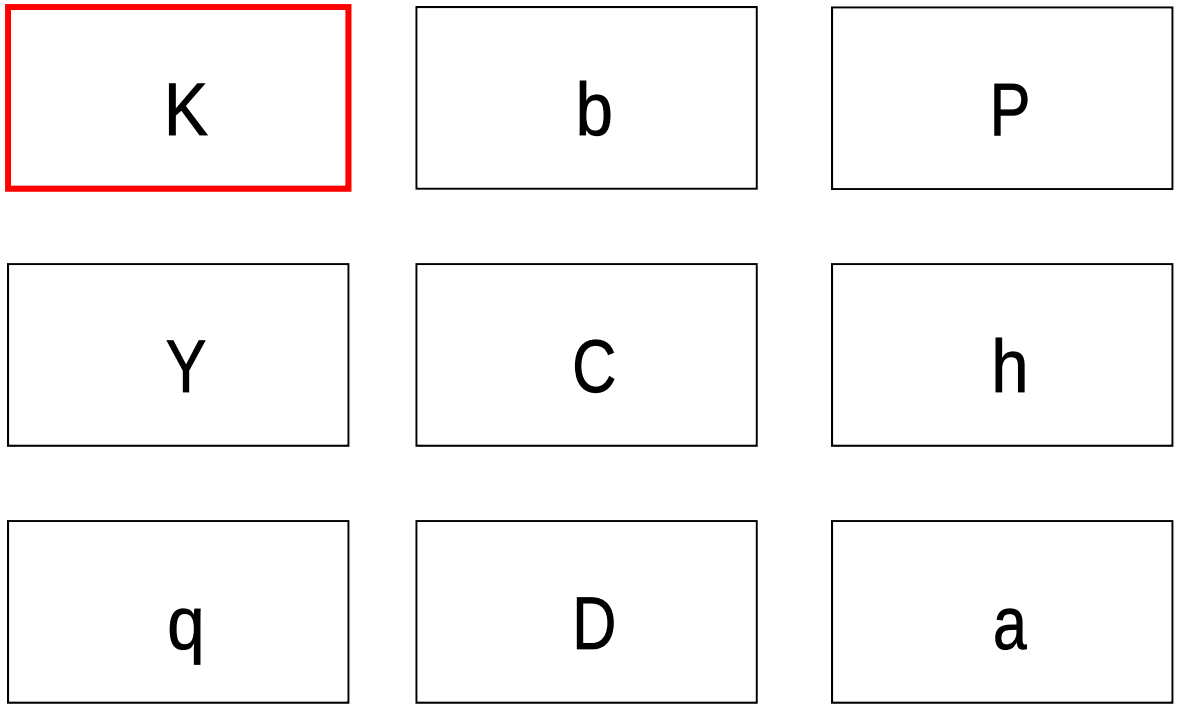
Incremental Rehearsal of Letter Names

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.



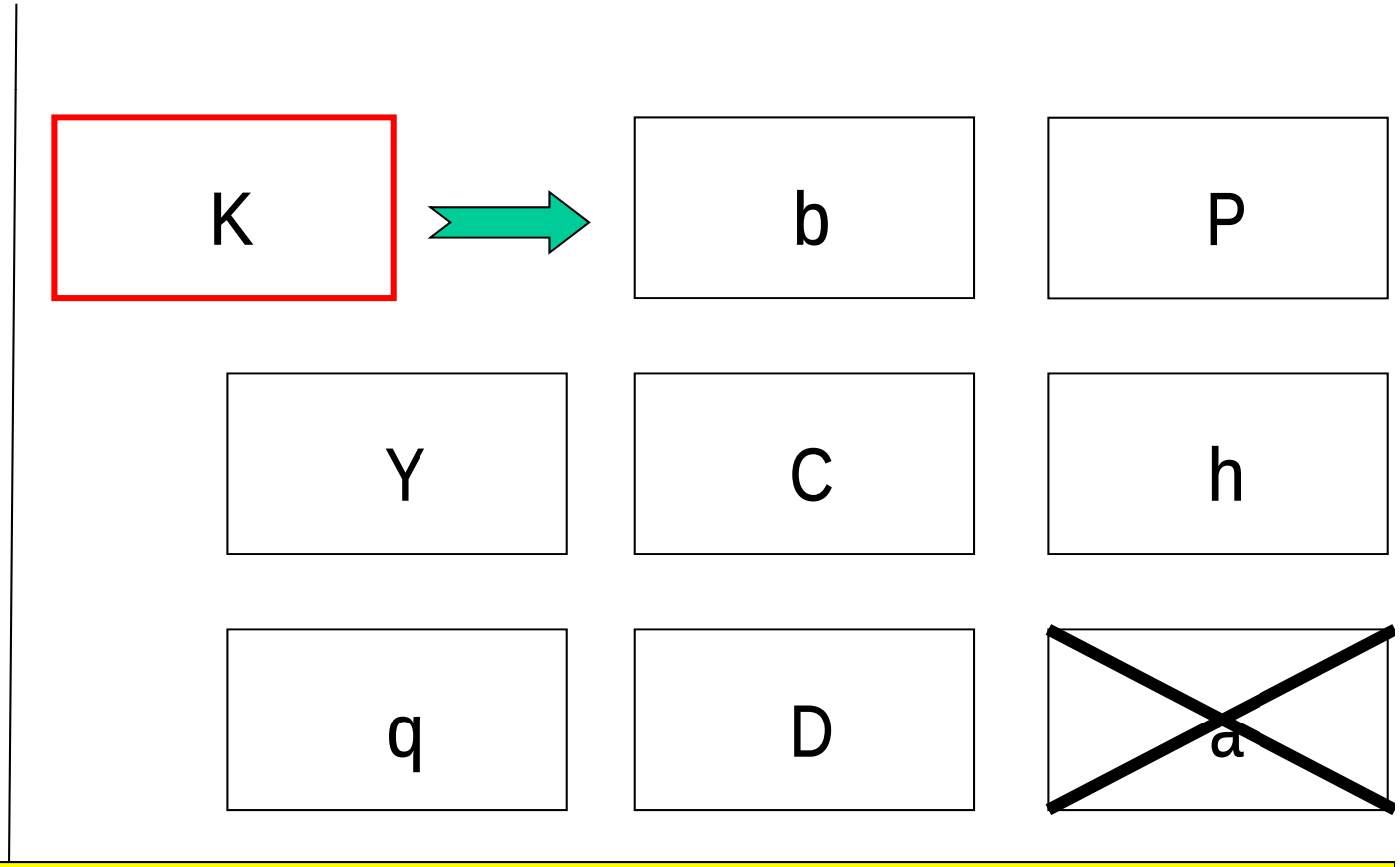
Incremental Rehearsal of Letter Names

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).



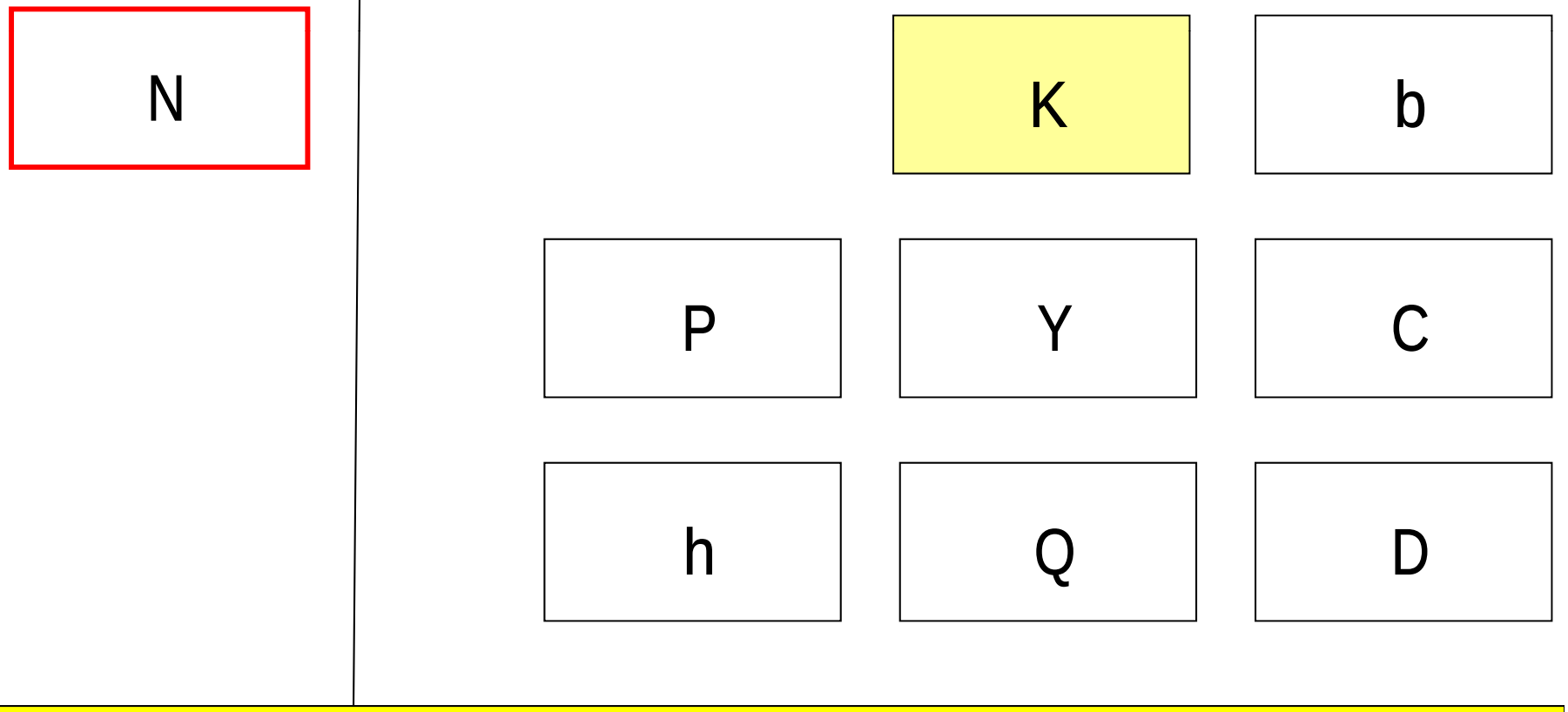
Incremental Rehearsal of Letter Names

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.



Case Example: Letter Naming

Goal-Setting and Data Collection

- Ms. Tessia set the goals that, within 4 instructional weeks, Colin would:
  - identify all upper-case and lower-case letters.
  - move above the 25th percentile in Letter Naming Fluency when compared to grade-level peers (using the AIMSweb norms).
- The teacher collected two sources of data on the intervention:
  - At the end of each tutoring session, the tutor logged any additional formerly unknown letters that were now 'known' (that the student could now accurately identify within 3 seconds).
  - Each week, the teacher administered a one-minute timed Letter Naming Fluency probe and charted the number of correctly identified letters.

Case Example: Letter Naming

Outcome

- Ms. Tessia discovered that Colin attained the first goal ('able to identify all upper-case and lower-case letters') within 2 weeks.
- Colin attained the second goal ('move above the 25th percentile in Letter Naming Fluency when compared to grade-level peers' by reading at least 38 letters per minute) within the expected four instructional weeks.
- Ms. Tessia then discontinued the intervention after four weeks, as Colin had moved into the average range with letter naming skills.

Tier 1 Case Example in the High School: Patricia: Reading Comprehension

Case Example: Reading Comprehension

The Problem

- A student, Patricia, struggled in her social studies class, particularly in understanding the course readings. Her teacher, Ms. Cardamone, decided that the problem was significant enough that the student required some individualized support.

Case Example: Reading Comprehension

The Evidence

- *Student Interview*. Ms. Cardamone met with Patricia to ask her questions about her difficulties with social studies content and assignments. Patricia said that when she reads the course text and other assigned readings, she doesn't have difficulty with the vocabulary but often realizes after reading half a page that she hasn't really understood what she has read. Sometimes she has to reread a page several times and that can be frustrating.

Case Example: Reading Comprehension

The Evidence (Cont.)

- *Review of Records.* Past teacher report card comments suggest that Patricia has had difficulty with reading comprehension tasks in earlier grades. She had received help in middle school in the reading lab, although there was no record of what specific interventions were tried in that setting.
- *Input from Other Teachers*. Ms. Cardamone checked with other teachers who have Patricia in their classes. All expressed concern about Patricia's reading comprehension skills. The English teacher noted that Patricia appears to have difficulty pulling the main idea from a passage, which limits her ability to extract key information from texts and to review that information for tests.

Case Example: Reading Comprehension

The Intervention

- Ms. Cardamone decided, based on the evidence collected, that Patricia would benefit from training in identifying the main idea from a passage, rather than trying to retain all the information presented in the text. She selected two simple interventions: Question Generation and Text Lookback. She arranged to have Patricia meet with her during an open period to review these two strategies. During that meeting, Ms. Cardamone demonstrated how to use these strategies effectively with the social studies course text and other assigned readings.

Question Generation

Students are taught to boost their comprehension of expository passages by (1) locating the main idea or key ideas in the passage and (2) generating questions based on that information.

http://www.interventioncentral.org/htmdocs/interventions/rdngcompr/qgen.php

Text Lookback

Text lookback is a simple strategy that students can use to boost their recall of expository prose by identifying questions that require information from the text and then looking back in the text in a methodical manner to locate that information.

http://www.interventioncentral.org/htmdocs/interventions/rdngcompr/txtlkbk.php

Case Example: Reading Comprehension

Documentation and Goal-Setting

- Ms Cardamone filled out a Tier 1 intervention plan for the student. On the plan, she listed interventions to be used, a checkup date (4 instructional weeks), and data to be used to assess student progress.
- Data: Ms. Cardamone decided that she would rate the student's grasp of text content in two ways:
  - Student self-rating (1-3 scale; 1=don't understand; 3 = understand well)
  - Quiz grades.
- She collected baseline on both and set a goal for improvement.

Classroom Intervention Planning Sheet

TeacherTeam: _____Mrs. Cardamone_____ Date: ___11-4-2009_____ Student: ____Patricia A._____

Student Problem Definition #1: ___has difficulty summarizing and retaining key information from course readings____

Student Problem Definition #2: _____

Interventions: Essential Elements (Witt et al., 2004)

- Clear problem-definition(s)
- Baseline data
- Goal for improvement
- Progress-monitoring plan

Intervention Description Describe each intervention that you plan to use to address the student's concern(s).	Intervention Delivery List key details about delivery of the intervention, such as:; (1) where & when the intervention will be used; (2) the adult-to-student ratio; (3) how frequently the intervention will take place; (4) the length of time each session of the intervention will last;.	Check-Up Date Select a date when the data will be reviewed to evaluate the intervention.	Assessment Data Note what classroom data will be used to establish baseline , set a goal for improvement, and track the student's progress during this intervention.
Text Lookback (see attached script)	Meet with student during open period to demonstrate intervention.	4 instructional weeks	Type(s) of Data to Be Used: Student self-evaluation of reading comprehension using 3 pt rating scale: 1= did not understand rdng, 3 = did understand rdng/quiz grades Baseline: 1.4 self-eval rating/60 avg quiz grade Goal by Check-Up: 2.5 self-eval rating/75 avg quiz grade
Question Generation	Meet with student during open period to demonstrate intervention. Ask student to show note card collection periodically to verify that she is using the intervention.	4 instructional weeks	Type(s) of Data to Be Used: See above Baseline: Goal by Check-Up:

Case Example: Reading Comprehension

The Outcome

- When the intervention had been in place for 4 weeks, Ms. Cardamone noted that Patricia appeared to have a somewhat better grasp of course content and expressed a greater understanding of material from the text.
- Because Patricia's self-ratings of reading comprehension and quiz grades met the goals after 4 weeks, Ms. Cardamone decided to continue the intervention plan with the student without changes.
- The teacher shared her intervention ideas with other teachers working with Patricia.

RTI: Evidence-Based Interventions

RTI Model: What are the essential elements of the RTI model?

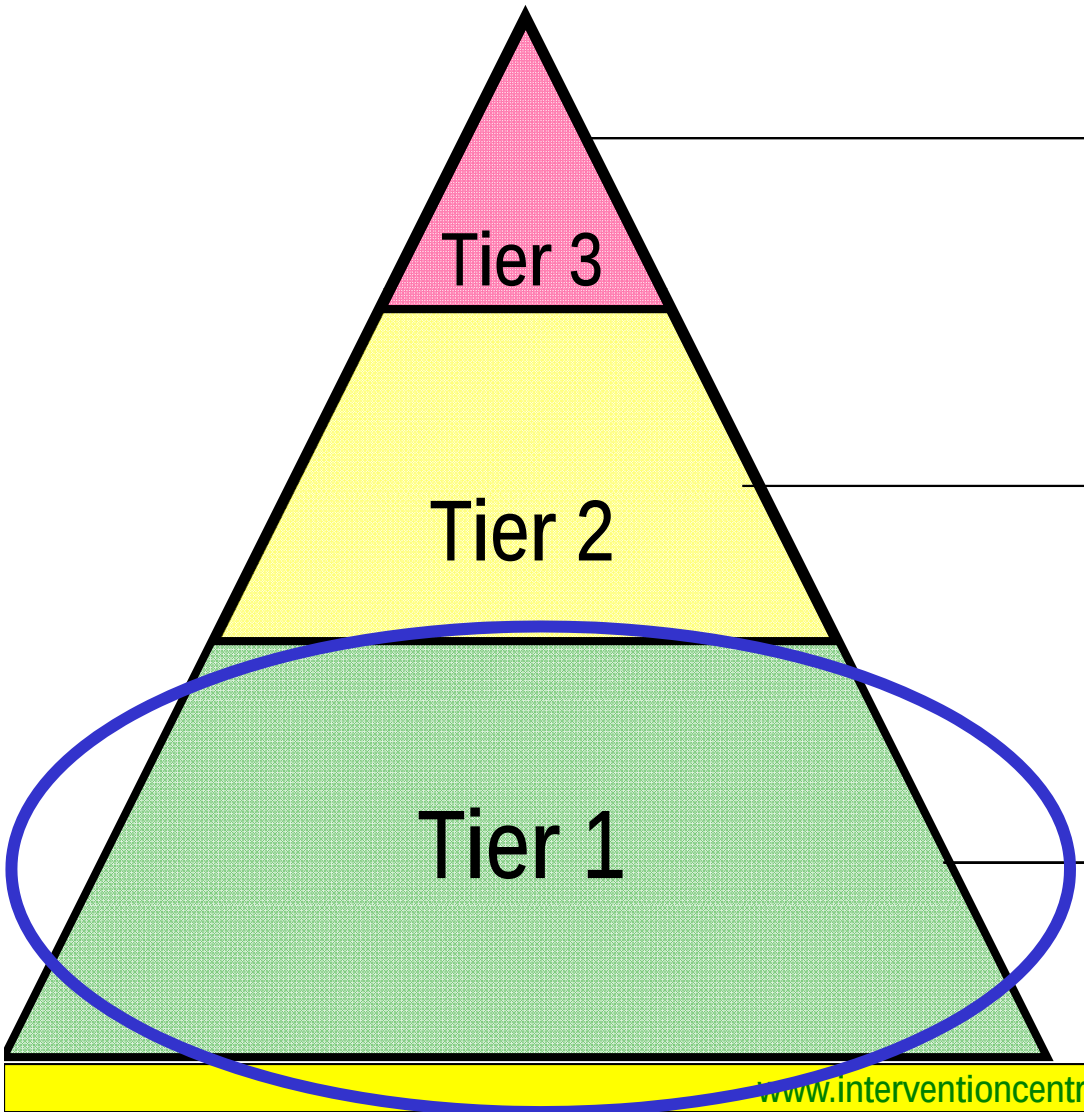
RTI Assumption: Struggling Students Are 'Typical' Until Proven Otherwise…

RTI logic assumes that:

- A student who begins to struggle in general education is *typical*, and that
- It is general education's responsibility to find the instructional strategies that will unlock the student's learning potential

Only when the student shows through well-documented interventions that he or she has 'failed to respond to intervention' does RTI begin to investigate the possibility that the student may have a learning disability or other special education condition.

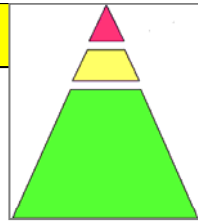
RTI 'Pyramid of Interventions'



Tier 3: Intensive interventions. Students who are 'non-responders' to Tiers 1 & 2 are referred to the RTI Team for more intensive interventions.

Tier 2 Individualized interventions. Subset of students receive interventions targeting specific needs.

Tier 1: Universal interventions. Available to all students in a classroom or school. Can consist of whole-group or individual strategies or supports.

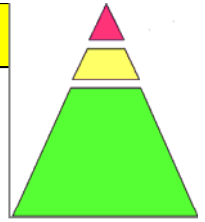


RTI Support: Tier 1 Core Instruction

- Tier 1 core instruction is considered to be 'universal' because all students receive it and benefit from it.
- Core instruction should include the elements of 'explicit instruction', a structured method for instructional delivery that is more likely to be effective with struggling students.
- To judge whether core instruction is adequate, RTI schools use screening instruments (e.g., reading fluency & comprehension probes; math computation fluency probes, math concepts and applications measures) to assess classwide math performance three times yearly. If at least 80 percent of students attain or exceed the screener's performance benchmark, core instruction is considered to be adequate.

Sources: Lembke, E. S., Hampton, D., & Beyers, S. J. (2012). Response to intervention in mathematics: Critical elements. Psychology in the Schools, 49(3), 257-272.

Wright, J. (2012). RTI Success in Secondary Schools: A toolkit for middle and high schools. Port Chester, NY: National Professional Resources, Inc.



RTI Support: Tier 1 (Classroom) Intervention

Tier 1 interventions are intended for 'red flag' students who struggle in the content area(s) and require additional individualized teacher support during core instruction. To successfully implement Tier 1 interventions, a middle or high school teacher will need:

- Clear criteria to identify Tier 1 intervention students (e.g., students who are failing the course on a 5-week grade report).
- Research-based strategies to address the student's academic (and perhaps motivational) deficits.
- A streamlined form to document the Tier 1 intervention plan.
- The ability to collect and interpret classroom data to judge whether the Tier 1 intervention is working.
- Guidelines for how long to implement the Tier 1 intervention before seeking additional RTI help for the student.

Sources: Wright, J. (2012). RTI Success in Secondary Schools: A toolkit for middle and high schools. Port Chester, NY: National Professional Resources, Inc.

The Key Role of Classroom Teachers as 'Interventionists' in RTI: 6 Steps

1. The teacher defines the student academic or behavioral problem clearly.
2. The teacher decides on the best explanation for why the problem is occurring.
3. The teacher selects 'research-based' interventions.
4. The teacher documents the student's Tier 1 intervention plan.
5. The teacher monitors the student's response (progress) to the intervention plan.
6. The teacher knows what the next steps are when a student fails to make adequate progress with Tier 1 interventions alone.

Response to Intervention

Classroom Intervention Planning Sheet

Teacher/Team: _____ Date: _____ Student: _____

Student Problem Definition #1: _____

Student Problem Definition #2: _____

[Optional] Person(s) assisting with intervention planning process: _____

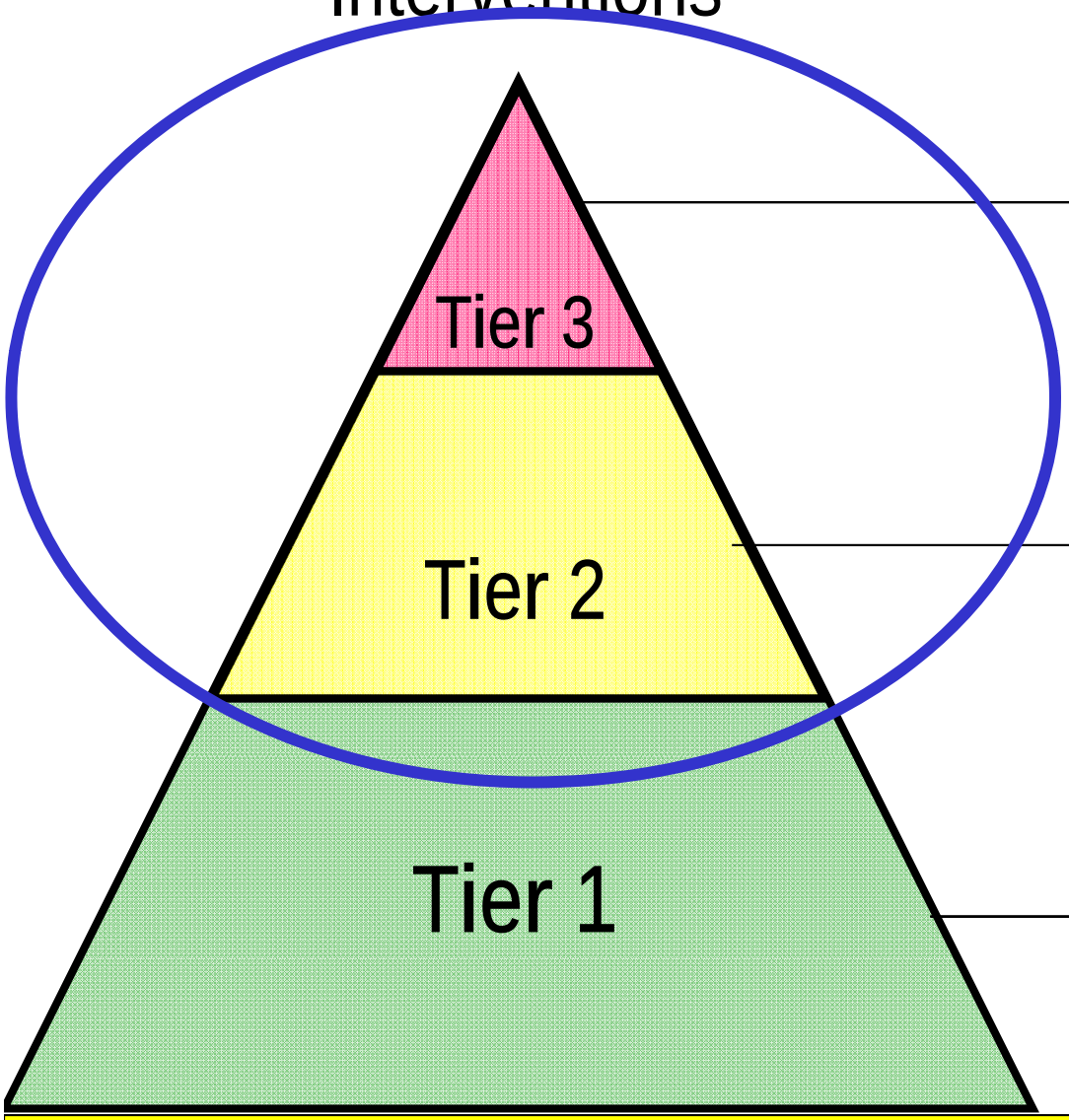
Interventions: Essential Elements (Witt et al., 2004)

- Clear problem-definition(s)
- Baseline data
- Goal for improvement
- Progress-monitoring plan

Intervention Description	Intervention Delivery	Check-Up Date	Assessment Data
Describe each intervention that you plan to use to address the student's concern(s).	List key details about delivery of the intervention, such as:; (1) where & when the intervention will be used; (2) the adult-to-student ratio; (3) how frequently the intervention will take place; (4) the length of time each session of the intervention will last;.	Select a date when the data will be reviewed to evaluate the intervention.	Note what classroom data will be used to establish baseline , set a goal for improvement, and track the student's progress during this intervention.
			Type(s) of Data to Be Used:
			Baseline / Goal by Check-Up
			Type(s) of Data to Be Used:
			Baseline / Goal by Check-Up
			Type(s) of Data to Be Used:
			Baseline / Goal by Check-Up

Witt, J. C., VanDerHeyden, A. M., & Gilbertson, D. (2004). Troubleshooting behavioral interventions. A systematic process for finding and eliminating problems. *School Psychology Review, 33*, 363-383.

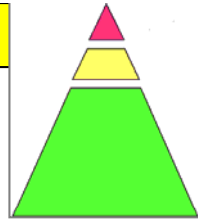
RTI 'Pyramid of Interventions'



Tier 3: Intensive interventions. Students who are 'non-responders' to Tiers 1 & 2 are referred to the RTI Team for more intensive interventions.

Tier 2 Individualized interventions. Subset of students receive interventions targeting specific needs.

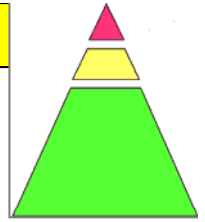
Tier 1: Universal interventions. Available to all students in a classroom or school. Can consist of whole-group or individual strategies or supports.



RTI Support: Tier 2/3 Supplemental Interventions

- Tier 2/3 interventions SUPPLEMENT core instruction.
- Students are identified for Tier 2/3 services based on objective data sources such as universal screeners that allow the school to predict each student's degree of 'risk' for academic failure.
- In a typical school, 10-15 % of students may require Tier 2 interventions in a given academic area. About 1-5 % of students may need more intensive Tier 3 interventions.
- Interventions at Tier 2 are monitored at least twice per month. Interventions at Tier 3 are monitored weekly.
- Each Tier 2/3 intervention should last at least 6-8 instructional weeks.

Sources: Wright, J. (2012). RTI Success in Secondary Schools: A toolkit for middle and high schools. Port Chester, NY: National Professional Resources, Inc.



RTI Support: Tier 2/3 Supplemental Interventions

Each Tier 2/3 intervention plan shows evidence that:

- Instructional programs or practices are 'evidence-based'.
- The intervention has been selected because it logically addresses the area(s) of academic deficit for the target student.
- The student-teacher ratio in the group provides adequate student support: Tier 2 up to 5 students; Tier 3 up to 2 students. NOTE: The instructional ratio for students engaged in computer-delivered Tier 2/3 instruction is 1:1.
- Students enrolled in the Tier 2/3 intervention group have the same shared intervention need(s).
- The intervention provides contact time adequate to the student academic deficit. Tier 2 interventions occur a minimum of 3-5 times per week in sessions of 30 mins or more; Tier 3 interventions occur daily in sessions of 30 mins or more (Burns & Gibbons, 2008).

Sources: Wright, J. (2012). RTI Success in Secondary Schools: A toolkit for middle and high schools. Port Chester, NY: National Professional Resources, Inc.

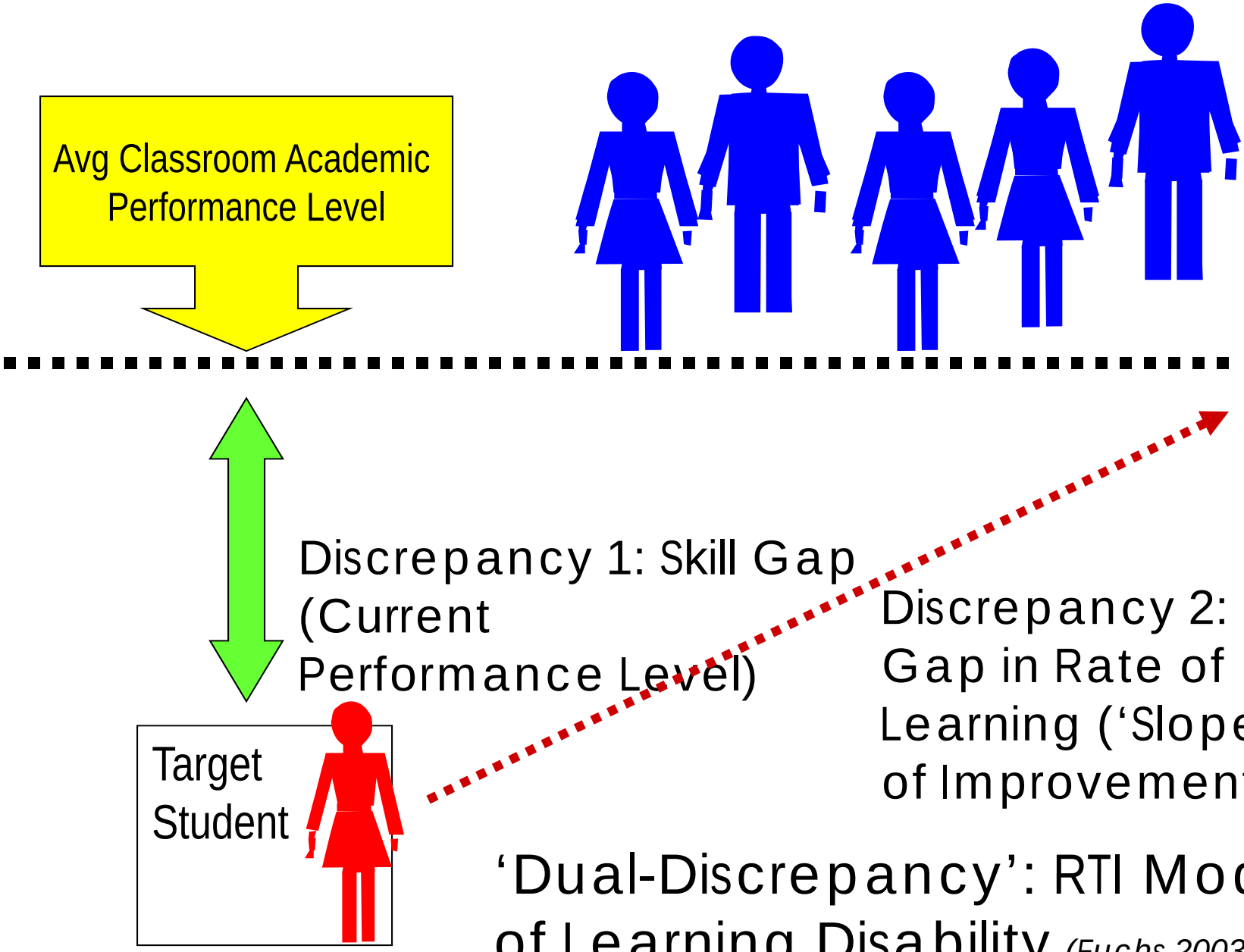
Scheduling Elementary Tier 2/3 Interventions

Option 3: *'Floating RTI':Gradewide Shared Schedule*. Each grade has a scheduled RTI time across classrooms. No two grades share the same RTI time. Advantages are that outside providers can move from grade to grade providing push-in or pull-out services and that students can be grouped by need across different teachers within the grade.

Anyplace Elementary School: RTI Daily Schedule

Grade K	Classroom 1	Classroom 2	Classroom 3	*9:00-9:30*
Grade 1	Classroom 1	Classroom 2	Classroom 3	*9:45-10:15*
Grade 2	Classroom 1	Classroom 2	Classroom 3	*10:30-11:00*
Grade 3	Classroom 1	Classroom 2	Classroom 3	*12:30-1:00*
Grade 4	Classroom 1	Classroom 2	Classroom 3	*1:15-1:45*
Grade 5	Classroom 1	Classroom 2	Classroom 3	*2:00-2:30*

Source: Burns, M. K., & Gibbons, K. A. (2008). Implementing response-to-intervention in elementary and secondary schools: Procedures to assure scientific-based practices. New York: Routledge.



'Dual-Discrepancy': RTI Model of Learning Disability *(Fuchs 2003)*

Discussion: What is the Role of the Classroom Teacher Under RTI?

In your groups:

Discuss your views about the role of the classroom teacher in the RTI model.

- What advantages do you see in this classroom teacher RTI role?
- What are questions or concerns that you have about this classroom teacher RTI role?

RTI: Evidence-Based Interventions

RTI Interventions: What are examples of research-based interventions?

Research-Based Classroom Strategies to Improve Student Behaviors: Example

A positive relationship with the teacher is often a crucial factor in motivating a struggling student. The power of positive teacher-student interactions is illustrated in one recent study, which found that--when instructors took just a few seconds to greet inattentive students by name at the start of class--the percentage of time those students spent academically engaged during the first 10 minutes of instruction soared from 45% to 72% (Allday & Pakurar, 2007).

Source: Allday, R. A., & Pakurar, K. (2007). Effects of teacher greetings on student on-task behavior. Journal of Applied Behavior Analysis, 40, 317-320.

NYSED Common Core State Standards: Reading Standards: Foundation Skills for K-5

Grade 5 students:

4. Read with sufficient accuracy and fluency to support comprehension.
   a. Read grade-level text with purpose and understanding.
   b. Read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
   c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Source: New York State P-12 Common Core Learning Standards for English Language Arts & Literacy. (2010). Retrieved from http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/p12_common_core_learning_standards_ela.pdf p. 24

Classroom Academic Interventions: Reading Fluency

- ASSISTED CLOZE INTERVENTION: INCREASE READING FLUENCY. Fluency is the goal of this reading intervention. Sessions last 10-15 minutes. The teacher selects a passage at the student's instructional level. The teacher reads aloud from the passage while the student follows along silently and tracks the place in the text with a finger. Intermittently, the teacher pauses and the student is expected to read aloud the next word in passage. Then the teacher continues reading. The process continues until the entire passage has been read. Then the student is directed to read the text aloud while the teacher follows along silently. Whenever the student commits a reading error or hesitates for 3 seconds or longer (whether during the assisted cloze or independent reading phase), the teacher stops the student, points to and says the error word, has the student read the word aloud correctly, has the student read the surrounding phrase that includes the error word, and then continues the current reading activity.

Source: Homan, S. P., Klesius, J. P, & Hite, C. (1993). Effects of repeated readings and nonrepetive strategies on students' fluency and comprehension. Journal of Educational Research, 87(2), 94-99.

Classroom Academic Interventions: Reading Fluency

- PAIRED READING: INCREASE READING FLUENCY. This reading fluency intervention prompts the student to read independently with prompt corrective feedback. Each session lasts 10-15 minutes, using an engaging passage at the student's instructional level. 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 stops the student, points to and says the error word, has the student read the word aloud correctly, has the student read the surrounding phrase that includes the error word, and resumes reading in unison. The teacher also praises the student for using the silent signal to read aloud independently and occasionally praises other aspects of the student's reading performance or effort.

Source: Homan, S. P., Klesius, J. P, & Hite, C. (1993). Effects of repeated readings and nonrepetive strategies on students' fluency and comprehension. Journal of Educational Research, 87(2), 94-99.

NYSED Common Core State Standards: Reading Standards Foundational Skills K-5

Grade 3 students:

Phonics and Word Recognition

3. Know and apply grade-level phonics and word analysis skills in decoding words.
   a. Identify and know the meaning of the most common prefixes and derivational suffixes.
   b. Decode words with common Latin suffixes.
   c. Decode multisyllable words.
   d. Read grade-appropriate irregularly spelled words.

Source: New York State P-12 Common Core Learning Standards for English Language Arts & Literacy. (2010). Retrieved from http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/p12_common_core_learning_standards_ela.pdf p. 24

Cover-Copy-Compare: Spelling (Available on conference page)

- DESCRIPTION: In this intervention to promote acquisition of spelling words, the student is given a spelling sheet with the target words correctly spelled. The student looks at each correctly spelled word, covers the word briefly and copies it from memory, then compares the copied word to the original correct model (Skinner, McLaughlin & Logan, 1997).
- GROUP SIZE: Whole class, small group, individual student
- TIME: Variable up to 15 minutes per session

Cover-Copy-Compare: Spelling

MATERIALS:

- *Worksheet: Cover-Copy-Compare*
- *Spelling Log: Mastered Words*

Cover-Copy-Compare: Spelling

INTERVENTION STEPS: Here are the steps of Cover-Copy-Compare for spelling:

1. *[Teacher] Create a Cover-Copy-Compare Spelling Sheet.* The teacher selects up to 10 spelling words for the student to work on during the session and writes those words as correct models into the left column ('Spelling Words') of the *Worksheet: Cover-Copy-Compare*. The teacher then pre-folds the spelling sheet using as a guide the vertical dashed line ('fold line') bisecting the left side of the student worksheet.

Cover-Copy-Compare Spelling Student Worksheet

Worksheet: Cover-Copy-Compare Student: _____ Date: _____

Spelling Words	Student Response
1. product	1a. product
	1b.
2. laughter	2a.
	2b.
3. string	3a.
	3b.
4. summer	4a.
	4b.
5. distract	5a.
	5b.
6. neighbor	6a.
	6b.
7. stable	7a.
	7b.
8. geography	8a.
	8b.
9. spool	9a.
	9b.
10. strict	10a.
	10b.

Fold Line

Cover-Copy-Compare: Spelling

2. *[Student] Use the Cover-Copy-Compare Procedures.* During the Cover-Copy-Compare intervention, the student follows these self-directed steps for each spelling word:

- Look at the correctly spelled target word 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 correct model ('Cover').
- Spell the word from memory, writing it in the first response blank under the 'Student Response' section of the spelling sheet ('Copy').
- Uncover the correct model and compare it to the student response ('Compare')..
- Continue until all words on the spelling list have been spelled and checked against the correct models.

Cover-Copy-Compare: Spelling

3. *[Teacher] Log Spelling Words Mastered by Student.* The teacher should select an objective standard for judging that the student using Cover-Copy-Compare has 'mastered' a spelling word (e.g., when the student is able to copy a specific word from memory without error on three successive occasions). The teacher can then apply this standard for mastery to identify and log spelling words in each session, using the *Spelling Log: Mastered Words* sheet.

Spelling Log: Mastered Words Sheet

Spelling Log: Mastered Words

Student: _____ School Yr: _____ Classroom/Course: _____

Spelling Cumulative Mastery Log: During the spelling intervention, log each mastered word below with date of mastery.

Word 1: _____ Date: __/__/__	Word 21: _____ Date: __/__/__
Word 2: _____ Date: __/__/__	Word 22: _____ Date: __/__/__
Word 3: _____ Date: __/__/__	Word 23: _____ Date: __/__/__
Word 4: _____ Date: __/__/__	Word 24: _____ Date: __/__/__
Word 5: _____ Date: __/__/__	Word 25: _____ Date: __/__/__
Word 6: _____ Date: __/__/__	Word 26: _____ Date: __/__/__
Word 7: _____ Date: __/__/__	Word 27: _____ Date: __/__/__
Word 8: _____ Date: __/__/__	Word 28: _____ Date: __/__/__
Word 9: _____ Date: __/__/__	Word 29: _____ Date: __/__/__
Word 10: _____ Date: __/__/__	Word 30: _____ Date: __/__/__
Word 11: _____ Date: __/__/__	Word 31: _____ Date: __/__/__
Word 12: _____ Date: __/__/__	Word 32: _____ Date: __/__/__
Word 13: _____ Date: __/__/__	Word 33: _____ Date: __/__/__
Word 14: _____ Date: __/__/__	Word 34: _____ Date: __/__/__
Word 15: _____ Date: __/__/__	Word 35: _____ Date: __/__/__
Word 16: _____ Date: __/__/__	Word 36: _____ Date: __/__/__
Word 17: _____ Date: __/__/__	Word 37: _____ Date: __/__/__
Word 18: _____ Date: __/__/__	Word 38: _____ Date: __/__/__
Word 19: _____ Date: __/__/__	Word 39: _____ Date: __/__/__
Word 20: _____ Date: __/__/__	Word 40: _____ Date: __/__/__

NYSED Common Core State Standards: Writing Standards for 6-12

Grade 8 students:

3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
   a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
   b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters.
   c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events.

Source: New York State P-12 Common Core Learning Standards for English Language Arts & Literacy. (2010). Retrieved from http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/p12_common_core_learning_standards_ela.pdf p. 56

Sentence Combining (Available on conference page)

Students with poor writing skills often write sentences that lack 'syntactic maturity'. Their sentences often follow a simple, stereotyped format. A promising approach to teach students use of diverse sentence structures is through sentence combining.

In sentence combining, students are presented with kernel sentences and given explicit instruction in how to weld these kernel sentences into more diverse sentence types either

- by using connecting words to combine multiple sentences into one or
- by isolating key information from an otherwise superfluous sentence and embedding that important information into the base sentence.

Sources: Saddler, B. (2005). Sentence combining: A sentence-level writing intervention. *The Reading Teacher, 58,* 468-471.

Strong, W. (1986). *Creative approaches to sentence combining.* Urbana, OL: ERIC Clearinghouse on Reading and Communication Skill & National Council of Teachers of English.

Formatting Sentence Combining Examples

- In each example, the base clause (sentence) appears first. Any sentence(s) to be combined or embedded with the base clause appear below that base clause.

  Example: **Base clause:** The dog ran after the bus.
  Sentence to be embedded: The dog is yellow.
  Student-Generated Solution: *The yellow dog ran after the bus.*

- 'Connecting words' to be used as a sentence-combining tool appear in parentheses at the end of a sentence that is to be combined with the base clause.

  Example: **Base clause:** The car stalled.
  Sentence to be combined: The car ran out of gas. (because)
  Student-Generated Solution: *The car stalled because it ran out of gas.*

- The element(s) of any sentence to be embedded in the base clause are underlined.

  Example: **Base clause:** The economic forecast resulted in strong stock market gains.
  Sentence to be embedded: The economic forecast was upbeat.
  Student-Generated Solution: *The upbeat economic forecast resulted in strong stock market gains.*

Table 1: Sentence-combining types and examples (Saddler, 2005; Strong, 1986)	
Type of Sentence	Sentence Combining Example
Multiple (Compound) Sentence Subjects or Objects: Two or more subjects can be combined with a conjunction (e.g., *or*, *and*). Two or more direct or indirect objects can be combined with a conjunction (e.g., *or*, *and*).	• Skyscrapers in the city were damaged in the hurricane. Bridges in the city were damaged in the hurricane. *Skyscrapers and bridges in the city were damaged in the hurricane.* • When they travel, migratory birds need safe habitat. When they travel, migratory birds need regular supplies of food. *When they travel, migratory birds need safe habitat and regular supplies of food.*
Adjectives & Adverbs: When a sentence simply contains an adjective or adverb that modifies the noun or verb of another sentence, the adjective or adverb from the first sentence can be embedded in the related sentence.	• Dry regions are at risk for chronic water shortages. Overpopulated regions are at risk for chronic water shortages. *Dry and overpopulated regions are at risk for chronic water shortages.* • Health care costs have risen nationwide. Those health care costs have risen quickly. *Health care costs have risen quickly nationwide.*

Table 1: Sentence-combining types and examples (Saddler, 2005; Strong, 1986)	
Type of Sentence	Sentence Combining Example
Connecting Words: One or more sentences are combined with connecting words. Coordinating conjunctions (e.g., *and, but*) link sentences on an equal basis. Subordinating conjunctions (e.g., *after, until, unless, before, while, because*) link sentences with one of the sentences subordinate or dependent on the other.	• The house was falling apart. No one seemed to care. (but) *The house was falling apart, but no one seemed to care.* • The glaciers began to melt. The earth's average temperature increased. (because) *The glaciers began to melt because the earth's average temperature increased.*
Relative Clauses: Sentence contains an embedded, subordinate clause that modifies a noun.	• The artist was the most popular in the city. The artist painted watercolors of sunsets. (who) *The artist who painted watercolors of sunsets was the most popular in the city.*
Appositives: Sentence contains two noun phrases that refer to the same object. When two sentences refer to the same noun, one sentence be reduced to an appositive and embedded in the other sentence.	• The explorer paddled the kayak across the raging river. The explorer was an expert in handling boats. *The explorer, an expert in handling boats, paddled the kayak across the raging river.*

Table 1: Sentence-combining types and examples (Saddler, 2005; Strong, 1986)	
Type of Sentence	Sentence Combining Example
Possessive Nouns: A sentence that describes possession or ownership can be reduced to a possessive noun and embedded in another sentence.	• Some historians view the Louisiana Purchase as the most important expansion of United States territory. The Louisiana Purchase was President Jefferson's achievement. *Some historians view President Jefferson's Louisiana Purchase as the most important expansion of United States territory.*

Grade 4 Math Fluency Goal: Number & Operations in Base Ten

Grade 4-Overview

Use place value understanding and properties of operations to perform multi-digit arithmetic.

4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.

5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Source: New York State P-12 Common Core Learning Standards for Mathematics (2010). Retrieved from http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/nysp12cclsmath.pdfp. 27

Explicit Time Drills

Math Computational Fluency-Building Intervention

Explicit time-drills are a method to boost students' rate of responding on math-fact worksheets.

The teacher hands out the worksheet. Students are told that they will have 3 minutes to work on problems on the sheet. The teacher starts the stop watch and tells the students to start work. 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 pencils in the air. Then students are told to resume work and the teacher restarts the stopwatch. This process is repeated at the end of minutes 2 and 3. At the conclusion of the 3 minutes, the teacher collects the student worksheets.

Source: *Rhymer, K. N., Skinner, C. H., Jackson, S., McNeill, S., Smith, T., & Jackson, B. (2002). The 1-minute explicit timing intervention: The influence of mathematics problem difficulty. Journal of Instructional Psychology, 29(4), 305-311.*

Peer Tutoring in Math Computation with Constant Time Delay (Available on Conference Page)

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.

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.

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.
- 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).
- Can 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).

Number	Student Name	NOTES
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

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 carts, the tutor shuffles them before again presenting cards.

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.			
Correctly Carried Out?	Step	Tutor Action	NOTES
__Y__N	1.	**Promptly Initiates Session.** At the start of the timer, the tutor immediately presents the first math-fact card.	
__Y__N	2.	**Presents Cards.** The tutor presents each card to the tutee for 3 seconds.	
__Y__N	3.	**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.	
__Y__N	4.	**Provides Praise.** The tutor praises the tutee immediately following correct answers.	
__Y__N	5.	**Shuffles Cards.** When the tutor and tutee have reviewed all of the math-fact cards, the tutor shuffles them before again presenting cards.	
__Y__N	6.	**Continues to the Timer.** The tutor continues to presents math-fact cards for tutee response until the timer rings.	

Peer Tutoring in Math Computation: Intervention Integrity Sheet (Part 2: Progress-Monitoring)

Tutoring Session: Assessment Phase			
Directions: Observe the tutor and tutee during the progress-monitoring phase of the session. Use this checklist to record whether each of the key steps of the assessment were correctly followed.			
Correctly Carried Out?	Step	Tutor Action	NOTES
__Y__N	1.	**Presents Cards.** The tutor presents each card to the tutee for 3 seconds.	
__Y__N	2.	**Remains Silent.** The tutor does not provide performance feedback or praise to the tutee, or otherwise talk during the assessment phase.	
__Y__N	3.	**Sorts Cards.** The tutor sorts cards into 'correct' and 'incorrect' piles based on the tutee's responses.	
__Y__N	4.	**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: Score Sheet

Math Tutoring: Score Sheet

Tutor 'Coach': _____ Tutee 'Player': _____

Directions to the Tutor: Write down the number of math-fact cards that your partner answered *correctly* and the number answered *incorrectly*.		
Date:	Cards Correct:	Cards Incorrect:
Date:	Cards Correct:	Cards Incorrect:
Date:	Cards Correct:	Cards Incorrect:
Date:	Cards Correct:	Cards Incorrect:
Date:	Cards Correct:	Cards Incorrect:
Date:	Cards Correct:	Cards Incorrect:
Date:	Cards Correct:	Cards Incorrect:
Date:	Cards Correct:	Cards Incorrect:

RTI: Evidence-Based Interventions

Intervention 'Big Ideas': What are important concepts to keep in mind when providing academic interventions to students?

Common Core Standards:

- Are ambitious
- Are tied to grade-level expectations
- Are consistent with models of foundation reading and math skills—but those underlying models are *implied* rather than explicit.

Source: New York State P-12 Common Core Learning Standards for English Language Arts & Literacy. (2010). Retrieved from http://www.p12.nysed.gov/ciai/common_core_standards/pdfdocs/p12_common_core_learning_standards_ela.pdf p.21

Reading Standards for Informational Text K–5

Grade 3 students:

Key Ideas and Details

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2. Determine the main idea of a text; recount the key details and explain how they support the main idea.
3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Craft and Structure

4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a *grade 3 topic or subject area*.
5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
6. Distinguish their own point of view from that of the author of a text.

Integration of Knowledge and Ideas

7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

Five Core Components of Reading

- "Phonemic Awareness: The ability to hear and manipulate sounds in words.
- Alphabetic Principle: The ability to associate sounds with letters and use these sounds to form words.
- Fluency with Text: The effortless, automatic ability to read words in connected text.
- Vocabulary: The ability to understand (receptive) and use (expressive) words to acquire and convey meaning.
- Comprehension: The complex cognitive process involving the intentional interaction between reader and text to convey meaning."

SOURCE: Big ideas in beginning reading. University of Oregon. Retrieved September 23, 20012, from http://reading.uoregon.edu/index.php

Five Strands of Mathematical Proficiency (NRC, 2002)

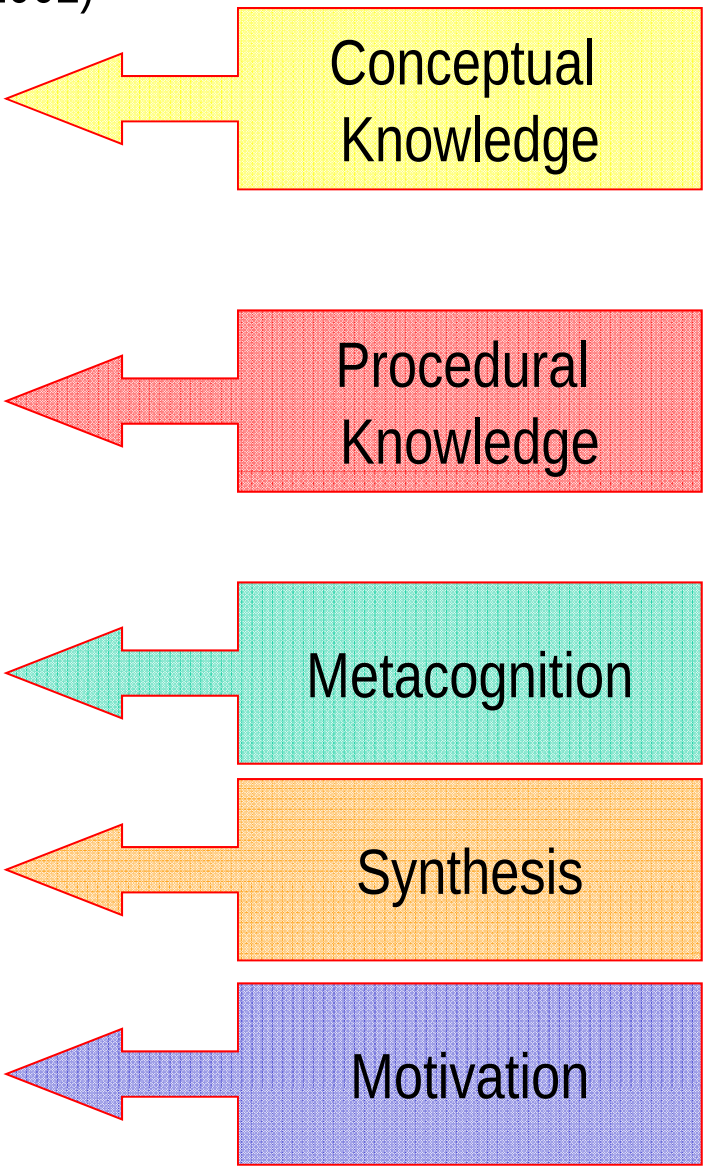
1. ***Understanding:*** *Comprehending mathematical concepts, operations, and relations--knowing what mathematical symbols, diagrams, and procedures mean.*

2. ***Computing:*** *Carrying out mathematical procedures, such as adding, subtracting, multiplying, and dividing numbers flexibly, accurately, efficiently, and appropriately.*

3. ***Applying:*** *Being able to formulate problems mathematically and to devise strategies for solving them using concepts and procedures appropriately.*

4. ***Reasoning:*** *Using logic to explain and justify a solution to a problem or to extend from something known to something less known.*

5. ***Engaging:*** *Seeing mathematics as sensible, useful, and doable—if you work at it—and being willing to do the work.*



Big Ideas: The Four Stages of Learning Can Be Summed Up in the 'Instructional Hierarchy' pp. 9-10

(Haring et al., 1978)

Student learning can be thought of as a multi-stage process. The universal stages of learning include:

- Acquisition: The student is just acquiring the skill.
- Fluency: The student can perform the skill but must make that skill 'automatic'.
- Generalization: The student must perform the skill across situations or settings.
- Adaptation: The student confronts novel task demands that require that the student adapt a current skill to meet new requirements.

The type of academic intervention selected should match a student's 'stage' of learning.

Source: Haring, N.G., Lovitt, T.C., Eaton, M.D., & Hansen, C.L. (1978). The fourth R: Research in the classroom. Columbus, OH: Charles E. Merrill Publishing Co.

Core Instruction, *Interventions*, Accommodations & Modifications: Sorting Them Out p. 2

- **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 RTI academic support. NOTE: While it is important to verify that good core instructional practices are in place for a struggling student, those routine practices do not 'count' as individual student interventions.

*Core Instruction, **Interventions***, Accommodations & 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, Accommodations & Modifications: Sorting Them Out

- **Instructional Adjustment (Accommodation).** 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 accommodation is intended to remove barriers to learning while still expecting that students will master the same instructional content as their typical peers.
  - Accommodation example 1: Students are allowed to supplement silent reading of a novel by listening to the book on tape.
  - Accommodation example 2: For unmotivated students, the instructor breaks larger assignments into smaller 'chunks' and providing students with performance feedback and praise for each completed 'chunk' of assigned work (Skinner, Pappas & Davis, 2005).

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.

Instructional Adjustments/Accommodations: Instruction

- CHUNK CLASSWORK AND INCLUDE BREAKS. Break up lectures or student work sessions into smaller chunks and include brief breaks to sustain student attention.

Source: Barkley, R. A. (2008). 80+ classroom accommodations for children or teens with ADHD. The ADHD Report, 16(4), 7-10.

Instructional Adjustments/Accommodations: Instruction

- CLASS NOTES: CREATE GUIDED NOTES. Prepare a copy of notes summarizing content from a class lecture or assigned reading—with blanks inserted in the notes where key facts or concepts should appear. As information is covered during lecture or in a reading assignment, the student writes missing content into blanks to complete the guided notes.

Source: Konrad, M., Joseph, L. M., & Eveleigh, E. (2009). A meta-analytic review of guided notes. Education and Treatment of Children, 32, 421-444.

Instructional Adjustments/Accommodations: Instruction

- CLASS NOTES: PROVIDE A STUDENT COPY. Provide a copy of class notes to allow the student to focus more fully on the lecture and class discussion. This strategy can be strengthened by requiring that the student highlight key vocabulary terms appearing in the prepared notes as they are brought up in the lecture or discussion.

Source: International Dyslexia Association. (2002). Accommodating students with dyslexia in all classroom settings. Retrieved from http://www.interdys.org/

Instructional Adjustments/Accommodations: Instruction

- CLASS NOTES: PROVIDE LECTURE OUTLINE. Make up an outline of the lecture to share with students. Encourage students to use the elements of the outline to help to structure their class notes and to ensure that their notes do not omit important information.

Source:International Dyslexia Association. (2002). Accommodating students with dyslexia in all classroom settings. Retrieved from http://www.interdys.org/

Instructional Adjustments/Accommodations: Instruction

- LECTURE: TIE INFORMATION TO COURSE READINGS. When presenting important course concepts during lecture, explicitly link that content to page references in the course text or other assigned readings that also cover that information. In class notes, also link important information to the course text by page number.

Source: Beech, M. (2010). Accommodations: Assisting students with disabilities. Florida Department of Education. Retrieved from http://www.fldoe.org/ese/pdf/accomm-educator.pdf

Instructional Adjustments/Accommodations: Instruction

- SET A REASONABLE HOMEWORK QUOTA. Limit homework to a manageable amount of work. Use this formula to estimate an appropriate homework load: 10 minutes times the student's grade level equals an appropriate TOTAL time devoted to nightly homework.

Source: Barkley, R. A. (2008). 80+ classroom accommodations for children or teens with ADHD. The ADHD Report, 16(4), 7-10.

Instructional Adjustments/Accommodations: Instruction

- TEST: ALLOW EXTRA TIME. For tests that evaluate student knowledge or skills but do not formally assess speed/fluency with fixed time limits, allow all students a reasonable amount of additional time if needed.

Source: Nelson, J. (2000). Student preferences for adaptations in classroom testing. Remedial & Special Education, 21, 21, 41-52.

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.

Source: Nelson, J. (2000). Student preferences for adaptations in classroom testing. Remedial & Special Education, 21, 21, 41-52.

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.

Source: Nelson, J. (2000). Student preferences for adaptations in classroom testing. Remedial & Special Education, 21, 21, 41-52.

Instructional Adjustments/Accommodations: Instruction

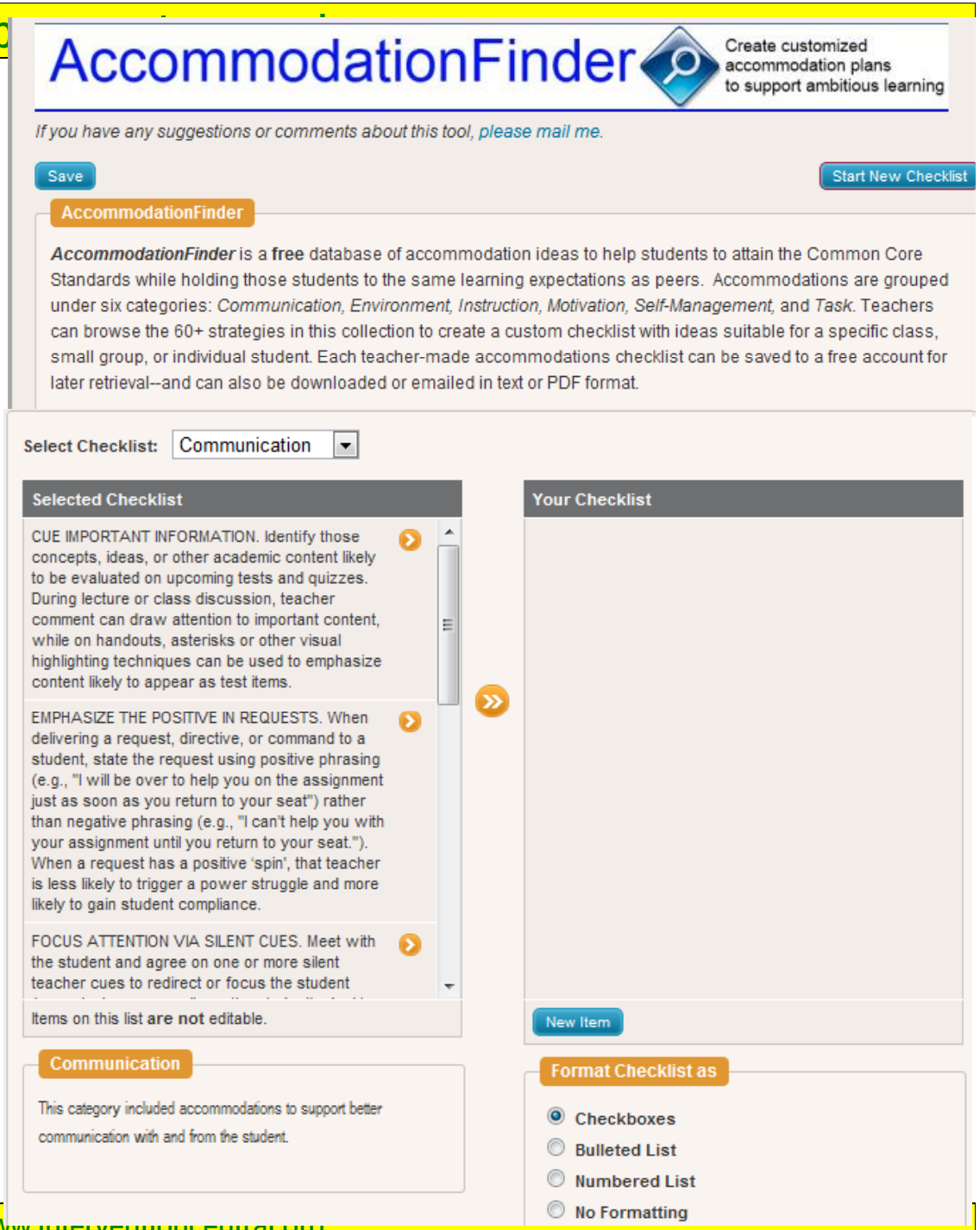
- TEST: HIGHLIGHT KEY WORDS IN DIRECTIONS. When preparing test directions, highlight key words or phrases in bold or underline to draw student attention.

Source: Nelson, J. (2000). Student preferences for adaptations in classroom testing. Remedial & Special Education, 21, 21, 41-52.

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.



> *"Teaching is giving; it isn't taking away."*
>
> *(Howell, Hosp & Kurns, 2008; p. 356).*

Source: Howell, K. W., Hosp, J. L., & Kurns, S. (2008). Best practices in curriculum-based evaluation. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology V* (pp.349-362). Bethesda, MD: National Association of School Psychologists..

Core Instruction, Interventions, Accommodations & **Modifications**: Sorting Them Out

- **Modification.** A modification changes the expectations of what a student is expected to know or do in core instruction—typically by lowering the academic standards against which the student is to be evaluated.
- Under RTI, schools should not modify core instruction for general-education students.

  Examples of modifications:
  - Giving a student five math computation problems for practice instead of the 20 problems assigned to the rest of the class
  - Letting the student consult course notes during a test when peers are not permitted to do so

RTI: Are Modifications Occurring in Core Instruction?

Are general-education students being given modifications during core instruction in your school or district?

If so, what are ways to help teachers to prevent these modifications from being used?

Accommodations Plan: Classwide Example

An eighth-grade instructional team ('8th Grade Green Team') met to discuss six students who showed difficulty in keeping up with course content and performing well on tests. The group browsed the Accommodations Finder application and selected a list of 5 ideas (next screen) to include in a classwide Accommodations Plan

Accommodations Menu: Classwide Example (Cont.)

8th Grade Green Team Classwide Accommodations Plan :

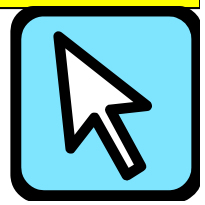
- CLASS NOTES: PROVIDE LECTURE OUTLINE
- INTERSPERSE LOW- AND HIGH-INTEREST ACTIVITIES
- LECTURE: TIE INFORMATION TO COURSE READINGS
- PREPARE READING GUIDES
- TEST: EVALUATE MORE FREQUENTLY

RTI: Evidence-Based Interventions

RTI & the Student: How can the teacher engage the *student* to take some responsibility for the intervention?

pp. 11-13

TUTORIAL: How To…Help the Student Develop Work-Planning Skills: Plan, Evaluate, Adjust



PLANNING: The teacher & student meet prior to the work to create a plan, with 3 phases to the meeting:

1. Task. The student describes each academic task in clear and specific terms (e.g., "Complete first 10 problems on page 48 of math book", "write an outline from notes for history essay").

   For this part of the work plan, the teacher may need to model for the student how to divide larger global assignments into component tasks. in the future to improve performance and outcomes.

Source: Martin, J. E., Mithaug, D. E., Cox, P., Peterson, L. Y., Van Dycke, J. L., & Cash, M.E. (2003). Increasing self-determination: Teaching students to plan, work, evaluate, and adjust. *Exceptional Children, 69*, 431-447.

TUTORIAL: How To…Help the Student Develop Work-Planning Skills: Plan, Evaluate, Adjust

PLANNING: The teacher & student meet prior to the work to create a plan, with 3 phases to the meeting:

2. **Time Allocated.** The student decides how much time should be reserved to complete each task (e.g., For a math workbook assignment: "20 minutes" or "11:20 to 11:40").

   Because students with limited planning skills can make unrealistic time projections for task completion, the teacher may need to provide initial guidance and modeling in time estimation.

Source: Martin, J. E., Mithaug, D. E., Cox, P., Peterson, L. Y., Van Dycke, J. L., & Cash, M.E. (2003). Increasing self-determination: Teaching students to plan, work, evaluate, and adjust. *Exceptional Children, 69*, 431-447.

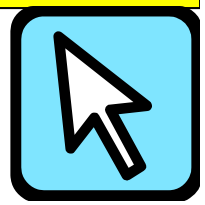
TUTORIAL: How To…Help the Student Develop Work-Planning Skills: Plan, Evaluate, Adjust

PLANNING: The teacher & student meet prior to the work to create a plan, with 3 phases to the meeting:

3. **Performance Goal**. The student sets a performance goal to be achieved for each task. Performance goals are dependent on the student and may reference the amount, accuracy, and/or qualitative ratings of the work: (e.g., for a reading assignment: "To read at least 5 pages from assigned text, and to take notes of the content"; for a math assignment: "At least 80% of problems correct"; for a writing assignment: "Rating of 4 or higher on class writing rubric").

Source: Martin, J. E., Mithaug, D. E., Cox, P., Peterson, L. Y., Van Dycke, J. L., & Cash, M.E. (2003). Increasing self-determination: Teaching students to plan, work, evaluate, and adjust. *Exceptional Children, 69*, 431-447.

TUTORIAL: How To…Help the Student Develop Work-Planning Skills: Plan, Evaluate, Adjust



SELF-EVALUATION: The teacher & student meet after the work to evaluate with 2 phases to the meeting:

1. **Comparison of Performance Goal to Actual Performance**. For each task on the plan, the student compares his or her actual work performance to the original performance goal and notes whether the goal was achieved. In addition to noting whether the performance goal was attained, the student evaluates whether the task was completed within the time allocated.

Source: Martin, J. E., Mithaug, D. E., Cox, P., Peterson, L. Y., Van Dycke, J. L., & Cash, M.E. (2003). Increasing self-determination: Teaching students to plan, work, evaluate, and adjust. *Exceptional Children, 69*, 431-447.

TUTORIAL: How To…Help the Student Develop Work-Planning Skills: Plan, Evaluate, Adjust

SELF-EVALUATION: The teacher & student meet after the work to evaluate with 2 phases to the meeting:

2. **Adjustment.** For each task that the student failed to reach the performance goal within the time allocated, the student reflects on the experience and decides what adjustments to make on future assignments. For example, a student reviewing a homework work-plan who discovers that she reserved insufficient time to complete math word problems may state that, in future, she should allocate at least 30 minutes for similar tasks.

Source: Martin, J. E., Mithaug, D. E., Cox, P., Peterson, L. Y., Van Dycke, J. L., & Cash, M.E. (2003). Increasing self-determination: Teaching students to plan, work, evaluate, and adjust. *Exceptional Children, 69*, 431-447.

Independent Work: Student Planner

Student: _____ **Teacher/Staff Member:** _____ **Date:** ___/___/___

		Planning	Planning	Planning	Self-Evaluation	Self-Evaluation
	Date: ___/___/___	**Task:** Describe the assignment or task to be completed.	**Time Allocated:** E.g., "20 minutes"; "11:20 to 11:40"	**Performance Goal:** Your goal for the amount, accuracy, and/or quality of work to be completed.	**Actual Performance:** Amount, accuracy, and/or quality of the work *actually completed*.	**Goal Met?:** Did you achieve the goal within the time allocated?
1	___/___/___					☐ YES ☐ NO
2	___/___/___	p. 13				☐ YES ☐ NO
3	___/___/___					☐ YES ☐ NO
4	___/___/___					☐ YES ☐ NO

Adjustment: Find any 'NO' responses in the **Goal Met?** column. In the space below, write the number of that goal and your plan to improve on that goal next time.

Number of Goal Not Met & Action Plan to Fix: _____ _____

Number of Goal Not Met & Action Plan to Fix: _____ _____

Number of Goal Not Met & Action Plan to Fix: _____ _____

Source: Martin, J. E., Mithaug, D. E., Cox, P., Peterson, L. Y., Van Dycke, J. L., & Cash, M.E. (2003). Increasing self-determination: Teaching students to plan, work, evaluate, and adjust. *Exceptional Children, 69*, 431-447.

RTI: Evidence-Based Interventions

RTI & Data Collection: What is an example of a method to measure student interventions?

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.'

Source: Witt, J. C., VanDerHeyden, A. M., & Gilbertson, D. (2004). Troubleshooting behavioral interventions. A systematic process for finding and eliminating problems. *School Psychology Review, 33*, 363-383.

Teacher-Friendly Data Collection Method:

Behavior Report Card

The Problem That This Tool Addresses:

Behavior Report Card

Most traditional methods of behavioral data collection are time-consuming to collect and difficult to juggle for a classroom teacher.

What is needed is a simple behavior-collection method that can be completed quickly and on a daily basis.

Behavior Report Card: What It Is…

- A behavior report card is a customized *rating scale* created by the teacher to rate various target student behaviors on a daily basis.
- If a teacher can describe and observe a student behavior, it can be tracked using a behavior report card.
- Examples of behaviors to track using a behavior report card include: Hyperactivity, work completion, organizational skills, and compliance with teacher requests.

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.

Behavior Report Card

Mak

www.intervention

Example: Daily R

Jim's Report Card

Student Name: Brian Date: _____

Rater: Mr. Wright Classroom: Classroom 345

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.

Brian spoke respectfully and complied within 1 minute with adult requests without argument or complaint.

The degree to which Brian met this behavior goal

☹ 😐 ☺

1 2 3

Brian went to the nurse only when needed.

How well Brian did in meeting the behavior goal

1.....2.....3

Poor Fair Good

Brian spoke respectfully and complied within 1 minute with adult requests without argument or complaint.

How well Brian did in meeting the behavior goal

1.....2.....3

Poor Fair Good

Brian spoke respectfully and complied within 1 minute with adult requests without argument or complaint.

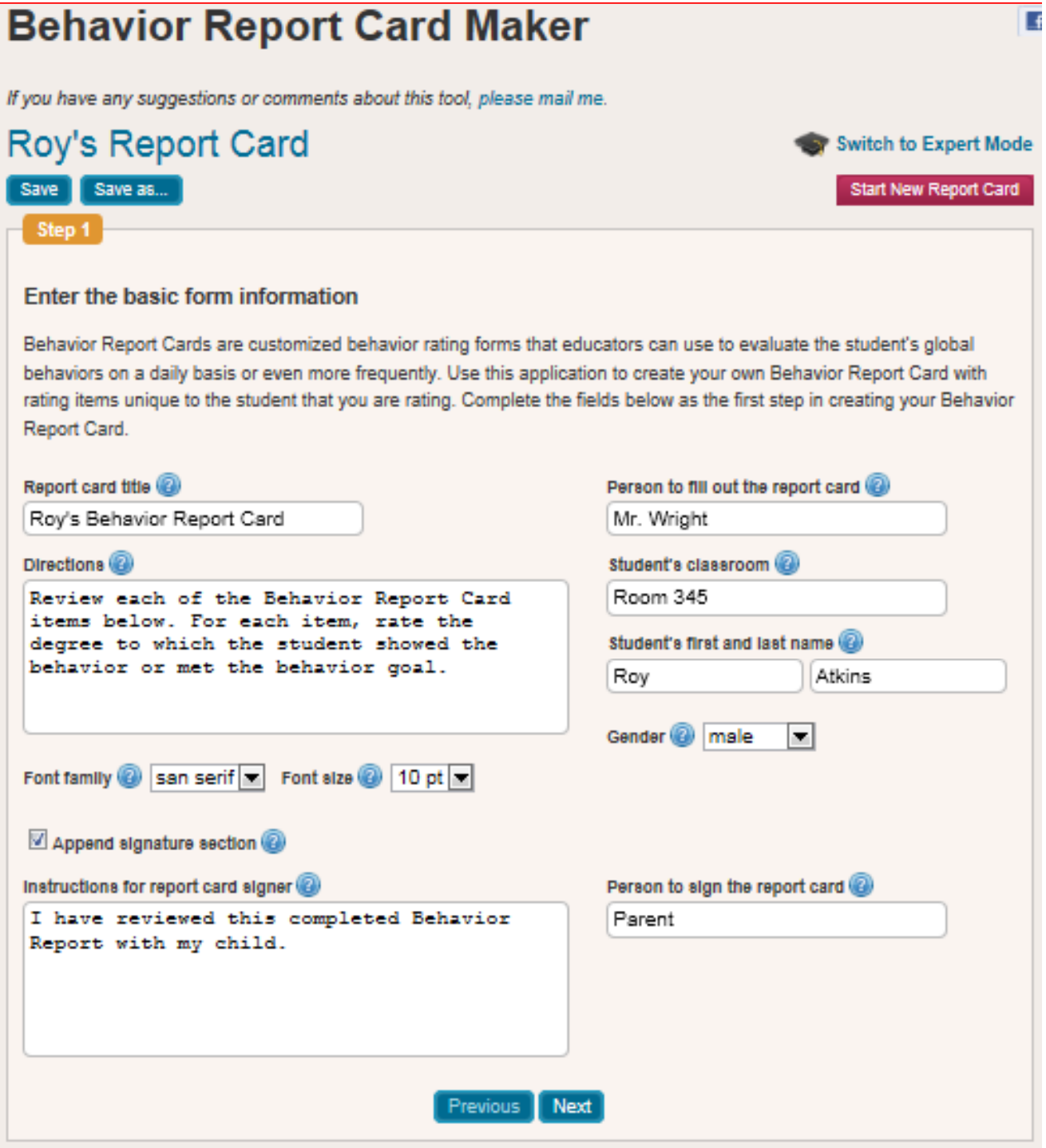
The degree to which Brian met this behavior goal

☹ 😐 ☺

1 2 3

Behavior Report Card Maker

www.interventioncentral.org



Rating Scales (Behavior Report Cards) and the Standards

Behavior Report Cards and similar rating scales are ideal for:

- monitoring observable student behaviors and interactions that support or are directly cited as part of Common Core Standards.

What RTI Questions Do You Still Have?

In your groups:

- Discuss the RTI information presented today.
- What additional questions do you have about Response to Intervention and difficult-to-teach students?