Reading Fluency Intervention
Strategies to Build Automaticity at Multiple Levels

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Reading Fluency

Accuracy
Automaticity
Prosody
Reading Fluency

AUTOMATICITY

• Letter level—quick and effortless identification of letter sounds
• Word level—quick and effortless word recognition or decoding
• Text level—fluid pace in reading connected text
Automaticity

Letter level

• Slow access to letter sounds impairs decoding accuracy and fluency (Hudson et al. 2006).
• Not sufficient for students to be accurate in letter sound knowledge.
Automaticity

Word level

- Slow decoding impairs understanding
- Cognitive load is reduced as automaticity is increased
- Cognitive resources can be devoted to comprehension
Automaticity

Text level

- Refers to the fluidity of text reading, including the rate of reading
- Typically measured in correct words per minute (CWPM)
- Allows attention to focus on the connectedness of text
Improving Reading Fluency

The Bottom Line

As with any skill that requires an individual to coordinate a series of smaller actions to create a unified process, it is practice that allows the learner to develop expertise.

(Kuhn & Stahl, 2002)

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Improving Reading Fluency

We will focus on practice that improves automaticity at the letter, word, and text level in order to reduce the readers’ cognitive load and increase his or her reading comprehension.
A meta-analysis of repeated readings research by Theirran (2004) found that these elements are critical for success:

- Much more powerful if students read passages to an adult (ES = 1.37) rather than a peer (ES = .36)
- Instructors should provide direct corrective feedback after every session
- Much more powerful if students read until they reach a rate and accuracy criterion (ES = 1.78) rather than a set number of times (ES = .38)
Timed Repeated Readings

• Can be used to increase automaticity with
  ▪ Letter sounds
  ▪ Sight Words
  ▪ Decodable Words
  ▪ Connected Text

• Should only be used with students who are essentially accurate, but slow.

• Should not be used with students who are not accurate or who are already fluent.

• Are not appropriate for use with all students

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Timed Repeated Readings

• Assess struggling students to see what the areas of difficulty are
  ▪ Letter sounds appropriate for grade level, including digraphs
  ▪ Word families
  ▪ Sight words
  ▪ Connected text

• If a student is accurate but slow, then timed repeated reading is a good choice for him or her

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Timed Repeated Readings

• If using timed repeated reading with levels lower than connected text, ensure there is a connection between the levels of practice.
  - Practice in letter sounds
  - Words with those letter sounds
  - Sight words at a similar reading level (if desired)
  - Connected text with those decodable and sight words
Timed Repeated Readings: Schedule

- Best if done individually
- Can be done with groups up to 3
- At least 3 times a week
- 5 to 10 minutes per student
Timed Repeated Readings: Goals

• Isolated Letter Sounds  60 cspm
• Isolated Words or Connected Text
  ▪ Grade 1    40-55 cwpm
  ▪ Grade 2    90-100 cwpm
  ▪ Grade 3    110-115 cwpm
  ▪ Grade 4    120-125 cwpm
  ▪ Grade 5    130-140 cwpm
  ▪ Grade 6+   150 cwpm

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Timed Repeated Readings: Materials

- Materials can be purchased or teachers can make their own.
- It is important that the materials:
  - follow a sensible progression that systematically addresses the areas that need to be worked on,
  - increase in difficulty in small steps,
  - are organized so that teachers and students can easily use them,
  - and are at the appropriate level to meet the student’s needs.
Timed Repeated Readings: Materials

• Letter sounds timing sheets go from simple to more difficult in sequence that matches reading intervention materials.

• Words timing sheets consist of increasingly difficult sight words or decodable words that use letter sounds.
Timed Repeated Readings: Materials

• Connected text can come from anywhere: decodable books, leveled books, core reading program stories, etc.
  ▪ As long as it is at the student’s instructional (90-95% accuracy) or independent (95% + accuracy) reading level, any text can be used.
Timed Repeated Readings: Materials

Materials Organization

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Sounds Practice 1

s r m f a
r s m a f
f r a m s
a f s r m
s a m r a
f r a f s
m a f s m

Sounds Practice 1

s r m f a 5
r s m a f 10
f r a m s 15
a f s r m 20
s a m r a 25
f r a f s 30
m a f s m 35

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Word Practice 1

ram  at  am  as  cat
am  vas  mat  ram  fat
ham  rat  as  sat  ram
ham  fat  ram  at  am
as  sat  cat  vas  rat

Word Practice 1

ram  at  am  as  cat  5
am  vas  mat  ram  fat  10
ham  rat  as  sat  ram  15
ham  fat  man  at  am  20
as  sat  cat  vas  rat  25

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Word Practice 2

map rim as Tim sit
fit ham rim tap Pam
hit cap sit him him
vas rap nap cat am
Tim as fit nap pit
rim map pit fat rap

map rim as Tim sit
fit ham rim tap Pam 10
hit cap sit him rap 15
vas rim nap cat am 20
Tim as fit nap pit 25
him map pit fat rap 30

R. Hudson 2008
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These materials are available from the state of Florida…

Online:

• Go to http://www.fldoe.org/workforce/pdf/products_catalog.pdf

By Phone:

• Call 1-800-342-9271
Great site to get your own reading pages of connected text made:

- The website (www.interventioncentral.com) is very helpful in the areas of CBM, RTI, positive behavioral support, reading, writing, and math

- The name of the tool is OKAPI! The Internet Application for Creating Curriculum-Based Assessment Reading Probes

Okapi Tool:

From http://www.interventioncentral.org/htmdocs/tools/okapi/okapi.php
Okapi Tool:

Text to Be Analyzed: (Submit text samples of up to 200 words)

Additional Options:
- Highlight Difficult Words
- Show Readability Formula
- Show Sentence Boundaries
- Count Semi-Colons (;), Colons (;) As Sentence Punctuation

'Magic Characters' Guide: (Optional)
- Place an asterisk (*) in front of any additional word (i.e., first names for Spache, names of persons or places for Dale-Chall) that you would like OKAPI! to accept as an 'easy' word.

From http://www.interventioncentral.org/htmdocs/tools/okapi/okapi.php
Okapi Tool:

'Magic Characters' Guide: (Optional)

- Place an asterisk (*) in front of any additional word (i.e., first names for Spache, names of persons or places for Dale-Chall) that you would like OKAPIII to accept as an easy word.
- Place a right-bracket (]) at any point in the text where you would like OKAPIII to force a new paragraph.
- Place a backslash (\) at the dividing point of any compound sentence that you would like OKAPIII to count as two sentences.
- Place an underscore (_) in front of any word containing one or more punctuation marks (e.g., Y.W.C.A.) that you would like to prevent OKAPIII from treating as end-of-sentence markers.

Readability Resources:

- Spache Revised Word List Spache Readability Formula Instructions [web page; pdf]
- Dale Familiar Word List Dale Readability Formula Instructions [web page; pdf]
- Public Domain Text Web Sites: Project Gutenberg, Bartleby.com, Blackmask.com

From http://www.interventioncentral.org/htmdocs/tools/okapi/okapi.php

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Mr. Noisy made noise when he walked.
Mr. Noisy made noise when he talked. Mr.
Noisy made noise when he danced. Mr.
Noisy made noise when he sang. Mr. Noisy
made noise when he drove his car. Mr.
Noisy made noise when he rode his bike.
"It's too noisy!" everybody yelled. Mr.
Noisy walked quietly. Mr. Noisy talked
quietly. Mr. Noisy danced quietly. Mr.
Noisy sang quietly. Mr. Noisy drove his
car quietly. Mr. Noisy rode his bike
quietly." It's too quiet!" everybody
yelled." Where's Mr. Noisy?" Here I am!"
Mr. Noisy made noise when he walked. 7
Mr. Noisy made noise when he talked. Mr. 15
Noisy made noise when he danced. Mr. 22
Noisy made noise when he sang. Mr. Noisy made noise when he drove his car. Mr. 38
Noisy made noise when he rode his bike. 46
"It's too noisy!" everybody yelled. Mr. 52
Noisy walked quietly. Mr. Noisy talked quietly. Mr. Noisy danced quietly. Mr. 64
Noisy sang quietly. Mr. Noisy drove his car quietly. Mr. Noisy rode his bike quietly. "It's too quiet!" everybody 83
For example...a first grader

- Accurate but slow in all of the single letter sounds
- Inaccurate on digraphs
- Accurate but slow on decoding CvC words with letter sounds
- Accurate but slow in text with CvC and simple Dolch words
For example...a first grader

Recommendations:

• Letter pages that systematically practice single letter sounds.

• Word pages that systematically practice CvC words with those sounds.

• Connected text with those words and simple Dolch Words.
Letter Sounds Example

One page of each:

1. m, s, r, f, short a
2. p, c, t, l, short l
3. g, d, k, n, short o
4. k, b, j, z, short u
5. v, y, w, x, short e
6. Mastery Test: Single letters
7. qu, th, ch, sh, ck
8. qu, th, ch, sh, ck
9. or, ing, ar, ir
10. wh, ur, er, ow (long o)
11. oa, ee, ea, ai
12. ay, igh, oo, oi
13. kn, wr, ew
14. ph, ui, ou
15. Review
16. Mastery Test: All Sounds
Sounds Practice 6

Single Sounds Mastery Test

m y n x e g
p b k z u b
g h d l o j
m c t f i z
v r s n u x
j a w r s k
p c e f i v
y d h l o w
k e j z u x
v y w a t b

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A reminder…

Whenever teaching or practicing individual letter sounds, be sure to model, teach, and have the students produce blendable sounds.
For example...a second grader

• Fluent in single letter sounds
• Accurate but slow on digraphs
• Fluent on reading CvC words
• Accurate but slow on decoding words with blends and digraphs.
• Fluent in simple text primarily made up of CvC words.
• Accurate but slow in text with digraphs and blends.
For example...a second grader

Recommendations:

• Systematic practice in digraph sounds.
• Systematic practice in words with those sounds and with blends
• Connected text with those words and common Dolch Words
For example...a third grader

- Fluent in single and digraph letter sounds
- Fluent on reading CvC words
- Accurate but slow on decoding words with blends and digraphs.
- Fluent in first grade text
- Accurate but slow in second grade text.
For example...a third grader

Recommendations:

• Systematic practice of words with blends and digraphs, moving to multisyllabic words

• Connected text at the second grade level with the same patterns as the words that gets increasingly difficult.
Timed Repeated Readings: Letter, Word, and Text Level

1. Preview material to be read
2. Review Graph and Set Goal for Session
3. Student Reads for 1 minute
4. Instructor Listens and Records
5. Instructor Provides Constructive Feedback
6. Calculate Score
7. Graph Data
8. Determine if Goal is met
9. Celebrate or Support

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Timed Repeated Readings:
1. Preview Material

- The student practices the timing probe.
- The instructor models the correct responses (i.e., correct pronunciation of isolated sounds or of difficult words) for any unknown items before beginning the timing.
Timed Repeated Readings:
2. Review Graph and Set Goal for Session

• Make sure to use the graph during every session with the student to provide critical information about progress and motivation.

• The student and instructor look at the graph of the previous session to review progress made to date and set a progress goal for today’s session.

• Ask the student to state what he or she will work to accomplish (e.g., I will read 5 more words. I will make fewer mistakes).
Review Graph and Set Goal for Session
Timed Repeated Readings:
3. Student Reads and
4. Instructor Records

- After instructor modeling, the student is asked to read as many sounds or words as possible in one minute from his or her copy of the reading materials.
- The instructor times the student for 1 minute.
- While listening, the instructor circles all errors on the instructor's copy of the page with a dry erase marker or wipe-off pen.
- In addition, the instructor offers the correct pronunciations during the timed reading.

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Timed Repeated Readings: 5. Constructive Feedback

- The instructor and student review the student's performance on the task.
- First, the instructor provides positive feedback.
- Next, the instructor provides correct pronunciations for errors and the student practices the correct pronunciation of sounds and words.
Timed Repeated Readings: 6. Calculate Score

• To determine the number of words the student read, look at the number of words at the end of the last complete line he read and then count on to the last word read.

• Then count the number of errors.

• Subtract the errors from the total words read. This yields the fluency score that will be graphed, the number of correct words read per minute.

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Timed Repeated Readings: 7. Graph Data

- Explain to the student that he or she will read as many times as it takes to reach that goal without too many mistakes.

- When the goal is reached, you will celebrate with the student and give him or her a new timing page.
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**Student:** Sammy Sample  
**Teacher:** Hudson  
**Target Skill (circle one):** Letter Sounds  
**Goal:** 60 cspm ≤ 2 errors

Available from www.fluenterader.org
Timed Repeated Readings: 7. Graph Data

- You will use the graphs with the student to provide critical information about progress and motivation.
- Record the student’s score in the correct week and day, with the number of correct words per minute/errors.
- On the graph, find the correct week and day and put a dot on the right horizontal line for the data point.
Timed Repeated Readings:
8. Determine if Goal is Met

• If a student reads at or above the number of correct words (sounds) per minute marked as his goal with fewer than the number of errors, then she has “made his goal”.

• This determination is made based solely on the data. A student may make his goal in one session or seven. Either way, the student moves on to a new passage.
8. Determine if Goal is Met
Timed Repeated Readings: 9. Celebrate

If the student met the goal, Celebrate!!

• In addition to using the graph, put into place a motivation plan
  ▪ Lunch with teacher
  ▪ Banana Split

  (Picture of a recipe for a banana split and a picture of the banana split.)
Timed Repeated Readings: 9. Celebrate

If the student met the goal, Celebrate!!

- In addition to using the graph, put into place a motivation plan
  - Lunch with teacher
  - Banana Split
  - Pizza
Timed Repeated Readings: 9. Celebrate

If the student met the goal, Celebrate!!

- In addition to using the graph, put into place a motivation plan
  - Lunch with teacher
  - Banana Split
  - Pizza
  - Reach for the Stars

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Timed Repeated Readings:
9. Celebrate

If the student met the goal, Celebrate!!

- In addition to using the graph, put into place a motivation plan
  - Lunch with teacher
  - Banana Split
  - Pizza
  - Reach for the Stars
  - Add shapes to a bulletin board for each goal reached
Timed Repeated Readings: 8. Determine if Goal is Met

• If a student read below the number of correct words (sounds) per minute marked as his goal or had more than the number of allowed errors, then he has not “made his goal”.

• The student will read that page again during the next instructional session and continue with that page until she reaches the goal.
Timed Repeated Readings:
9. Support

- If the student has not met the goal, provide support.
- Many students who struggle in school attribute failure to lack of ability or the task being too hard. As you provide support to the student, be sure to attribute reaching his goal to hard work and his failure to reach the goal as a result of not working hard enough.
- You may want to discuss strategies to use, additional practice, or other ways to help himself reach the goal.
“The goal of helping children learn to recognize words quickly and easily is to ensure that word recognition will feed rather than compete with comprehension. The goal of explicitly and systematically teaching children to understand and use phonics is to bring them to that point faster.”

(Adams, 2001, p. 78)
Questions?

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A list of resources and materials are found on handout 6 of your packet