

Interventions for Dyslexia

Nancy Mather, Ph.D.
March 24, 2020
Webinar

Sponsored by:



What do we know about evidence-based interventions for students with dyslexia?

Topics

- What is dyslexia?
- Development of decoding
- Instructional strategies and accommodations
- Technology and teacher training

What is Dyslexia?

- It is a specific problem in the development of word reading and spelling skills.
- It affects the development of automaticity with sound-symbol connections.
- It has both a neurobiological and genetic basis.
- It is often accompanied by specific weaknesses in cognitive factors that predict poor reading and spelling.

It is the most common specific learning disability.

70 to 80% of the referrals to special education involve concerns about reading development.



Aaron, Grade 6



Mystical Creatures

Hi my name is fred.
I'm the most unique ~~my~~ mystical creature
#in the planet
#becs I can travel throu time demchins.
#And I have the body of a garlin and the
wings and #I'm tall of a dragon.
The demchin #I lev in is calld the land
of #mystical creatures.
One day me and my wife talk about
doing sun time traveling.
We did not now wher we wanted to travel
to so we lokt at the maps we hade.
Her is one I hard Julie call out wht is
it I ask.
she brot it over and it red planet ertb.
#I thot about it and I rolized we have
never vizzotted this planet
And that is won the trake began.

Dyslexia and Alternate Terms

- Specific Reading Disability
- Specific Learning Disability in Basic Reading Skills
- Specific Reading Fluency/Rate Disability
- Specific reading disorder (ICD-10-F81.00)
- Specific learning disorder with an impairment in reading (DSM-5 315.00)

European Dyslexia Association

**“No Matter Which Country-
No Matter Which Language-
Dyslexia is Everywhere.”**

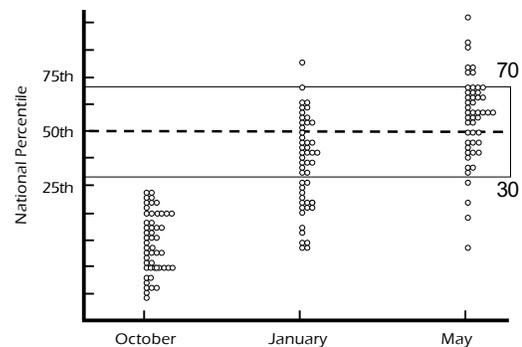


Design of Study in which intervention occurred

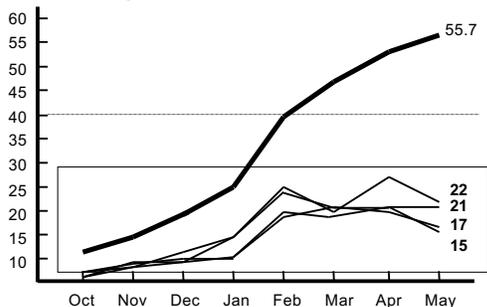
1. Most “at risk” first graders from five elementary school - PPVT above 70
2. Instruction provided in 45 min. sessions every day from October through May in groups of 3 or 5 by experienced teachers or well-trained paraprofessionals
3. Used a structured (scripted) reading program that contained instruction and practice in phonemic awareness, phonics, fluency, and comprehension
4. Used a number of methods to achieve fidelity of implementation: 3 days of initial training, weekly supervisory visits, and monthly inservices (3 hours)

Source: Torgesen, J. K. (2004, January). Setting new goals for reading interventions: Evidence from research. Keynote presentation at the Northern California Branch of the International Dyslexia Association, San Francisco.

Growth in Word Reading Ability



Growth in Correct Words Per Minute on First Grade Level Passages for four lowest performers



“The remedial work was unsuccessful in about 4 or 5 percent of the cases, in that this percentage of cases did not show improved scores on the retests” (p. 151).

Source: Monroe, M., & Backus, B. (1937). Remedial reading. Boston: Houghton Mifflin.

Strategies for Word Identification

- 1. By segmenting and blending sounds.**
- 2. By pronouncing common spelling units (e.g., syllables).**
- 3. By recognizing sight words from memory.**
- 4. By creating analogies to known words.**
- 5. By using context cues to predict words.**

Skilled Reading

The key to efficient text reading is automaticity (the ability to read words by sight automatically). Allows readers to process words in text quickly w/o conscious attention to words. All other cuing systems require conscious attention.

Source: Ehri, L. C. (1998). Grapheme-phoneme knowledge is essential for learning to read words in English. In J. L. Metsala & L. C. Ehri (Eds.), *Word recognition in beginning literacy* (pp. 3-40). Mahwah, NJ: Lawrence Erlbaum.

Phases of Sight Word Development

Pre-Alphabetic Phase

Partial Alphabetic Phase

Full Alphabetic Phase

Consolidated Alphabetic Phase

Ehri, L. C. (1998). Grapheme-phoneme knowledge is essential for learning to read words in English. In J. L. Metsala & L. C. Ehri (Eds.), *Word recognition in beginning literacy* (pp. 3-40). Mahwah, NJ: Lawrence Erlbaum.

Pre-Alphabetic Phase

Makes connection between salient visual cues and word meaning

Does not use letter-sound relations to aid in word identification

Partial Alphabetic

Makes connections between some of the letters and sounds

Relies more on first and final consonant sounds

Lacks full knowledge of alphabetic system, particularly vowels

Reads same word inconsistently and confuses words with similar letters (e.g., cap and camp)

Full Alphabetic

Has complete connections between the phonemes and graphemes

Can decode words never read before by segmenting and blending letters

Remembers how to read sight words

Consolidated Alphabetic

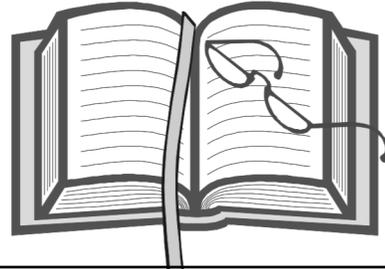
Recognizes larger letters units instantly
(e.g., common spelling patterns, syllables)

Has consolidated units in memory
(e.g., -est, -tion, -ing, -le)

Is sensitive and recalls spelling patterns
observed in words

Reads words rapidly and easily

Different People require Different Approaches at Different Developmental Stages

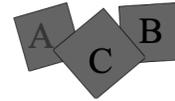


Elements of Whole Language Methods

- Child centered and motivating
- High-interest and authentic text
- Interactive: Language-rich environment
- Emphasis on meaning and language
- Main belief :Reading develops naturally through exposure

Poor readers have difficulties...

- learning how to blend (put together) and segment (take apart) the sounds in words.
- learning sound (phoneme) and letter (grapheme) correspondences.



“Decoding is at once the least and yet the most important aspect of reading...”

-Gerald Glass, 1973

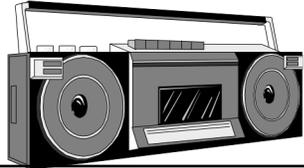
Pre-Alphabetic

- Teach rhyming.
- Teach sound blending and segmentation.
- Work on phonemic manipulation tasks with older students.

Phonological Awareness

Knowing that spoken language is composed of sounds

The ability to manipulate and integrate language sounds



Numerous Research Results have demonstrated:

Phonemic awareness...

is highly related to reading achievement and can cause reading failure

Phonemic awareness training...

reduces reading failure
provides long lasting benefits

National Reading Panel Conclusions about Phonemic Awareness

Can be taught explicitly

No more than 20 hours of instruction per year (5-18 hours)

Focus on one skill at a time

Most effective when combined with letters

Most effective with instruction in small groups

Phoneme

- **Basic building block of speech**
- **Single speech sound**
- **Distinguishes one word from another**
- **Signifies a change in meaning**

Letters, Phonemes, and Graphemes

How many letters in the alphabet? ____

How many speech sounds? ____

Pin or pen?

How many graphemes? ____

(a letter (f) or grouping of letters (ph) that represent a single speech sound)

Phonological Awareness Development

K-1st: rhyming, blending and segmenting compounds words and multisyllabic words

1st and 2nd grade: Segmenting and blending phonemes. Manipulating the initial, final, and then the middle sound.

Examples of Phonological Awareness Tasks

- Rhyming: What words rhyme with dog?
- Blending: What word is this... /sh/ /oe/?
- Phoneme Counting: How many sounds are in the word “ship”?
- Phoneme Segmentation: How many sounds do you hear in the word “bus”?
- Phoneme Deletion: What is left if the /t/ sound were taken from “cart”?

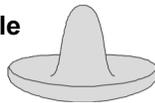
How many phonemes do you hear in...?

- pig** ___ 
- rabbit** ___ 
- rooster** ___ 
- sheep** ___ 
- box** ___ 

Onsets and Rimes

Two parts of the English syllable

Onset: the consonants h-at



Rime: the vowel and what follows; the part that rhymes h-at

In English, all syllables have a rime, but not necessarily an onset -at

37 rimes from which 500 primary words can be taught using analytic phonics.

Wylie & Durrell, 1972

-ack -ain -ake -ale -all -ame -an
-ank -ap -ash -at -ate -aw -ay
-eat -ell -est -ice -ick -ide -ight
-ill -in -ine -ing -ink -ip -ir
-ock -oke -op -or -ore -uck -ug
-ump -unk

Two most important phonological awareness abilities for early reading and spelling:

- Sound blending: provides the basis for learning phonics.
- Segmentation: provides the basis for sequencing sounds when spelling.
- Go back and forth between the two: compound words, syllables, then phonemes

The two most important phonological awareness abilities for older students are:

Phonemic Manipulation tasks:

- Deletion
- Substitution

More fine grain analysis supports orthographic mapping.

Source: Kilpatrick, D. A. (2015). *Essentials of assessing, preventing, and overcoming reading difficulties*. Hoboken, NJ: John Wiley & Sons.

Phoneme Manipulation Tasks

- Deletion: say cart without /t/
- Addition: say at with /c/ at the front
- Substitution:
 - Initial: Change the /s/ in sun to /f/
 - Final: Change the /t/ in cat to /b/
 - Medial: Change the /i/ in hit to /a/
- Reversal: say the sounds in “enough” backward

Two Types of Consonant Sounds

- Stop: said with a puff of air /d/
- Continuous: sustained as long as you have breath /s/

Bounced and Stretched Sounds

Adapted from Success for All reading program

Bounced sounds are voiced softly and rapidly.

b c d g h j p t qu w x y

Stretched sounds are sustained for 1-2 seconds.

f l m n r s v z (a e i o u)

Training Sound Blending Ability

Ability to push speech sounds together

- Progress from compound words to syllables to onset-rimes to phonemes.
- Start the instruction with continuous sounds that can be prolonged (e.g., /s/, /f/, /m/).
- Present words with two sounds, three, and then four (e.g., /m/ /e/, /sh/ /oe/, /f/ /a/ /t/, /s/ /a/ /n/ /d/).
- Gradually increase the interval between sounds from 1/4 second to 1 second break.

Segmentation

1. Break compound words into words (e.g., cup-cake.)
2. Count the number of syllables in a word (e.g., car-pen-ter).
3. Break into onset-rime (e.g., c-at).
4. Count the number of phonemes (e.g., s-e-g-m-e-n-t).

Segmentation

Ability to separate sounds

- Manipulatives (e.g., tiles, poker chips)
- Bounce or throw a ball
- Tap out the number of words, syllables, phonemes
- Hold up fingers to count the number of phonemes

Instructional Guidelines

Consider the level of development and the difficulty level of the task:

Rhyme identification vs. production
Initial sound, final sound, and then medial sound

Compound words, syllables, onset-rimes, phonemes

Moving from Pre-Alphabetic to Partial/Full Alphabetic (Phonological Awareness to Print)

- Teach sounds and then how the sounds are spelled with letters (e.g., Elkonin boxes, phoneme-grapheme matching, Making Words).
- Start with regular patterns (e.g., Consonant-Vowel-Consonant-CVC) and progress to more complex patterns.
- Introduce and review words with irregular elements.

The Alphabetic Principle

The systematic use of alphabetic letters to represent speech sounds-how speech sounds are represented in print

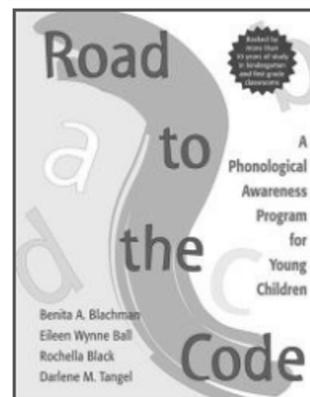
phoneme *grapheme*
/f/ **→** **f**

Four ways to spell the speech sound /f/

1. _____
2. _____
3. _____
4. _____

Starting point: forming the connections between the phonemes (speech sounds) and the graphemes (letters that represent those sounds).

Phonemes: /m/ /a/ /n/
↓ ↓ ↓
Graphemes: m a n
man



Adapted Elkonin Procedure (Pre-Alphabetic)

1. Select a simple line drawing. 
2. Place a rectangle for a word under the drawing divided into squares equal to number of phonemes 
3. Say the word slowly and push a marker forward for each sound. 
4. Color-code markers for vowels and consonants.



5. Progress to letter tiles

C A T

Talk-to-Yourself Chart

(Adapted from Benchmark School, Gaskins)

1. The word is _____.
2. When I stretch the word, I hear _____ sounds.
3. There are _____ letters because _____.
4. The spelling pattern is _____.
5. This is what I know about the vowel: _____.
6. Another word I know with the same vowel sound is: _____.
7. Other words that share this same spelling pattern are: _____.

1. The word is *right*.
2. When I stretch the word, I hear 3 sounds.
3. There are 5 letters because it takes *i-g-h* to represent the *i* sound.
4. The spelling pattern is *ight*.
5. This is what I know about the vowel: the vowel is a spelling pattern that makes the long *i* sound.
6. Another word that I know with the same vowel sound is: *ride*.
7. Other words that share this same spelling pattern are: *light, fight, flight, right, night, might, tight, sight, fright, plight*

Making Words

- Give each student 6 to 8 letters with one or two colored coded vowels
- Have each student make 2 then 3 letters words using the letters.
- Continue a pattern, increasing word length one letter during each step.
- Example: it, sit, slit, split, splint, splinter, splintering
- Practice with morphemes: -ed, -ing, -er

Source: Cunningham, P.M., & Cunningham, J. W. (1992). Making words: Enhancing the invented spelling-decoding connection. *Reading Teacher*, 46, 106-115.

Modifying Making Words

- Focus on CVC patterns
- Progress from changing the initial to the final to medial sounds
- Integrate with a reading/writing activity
- Pair at-risk student with a tutor

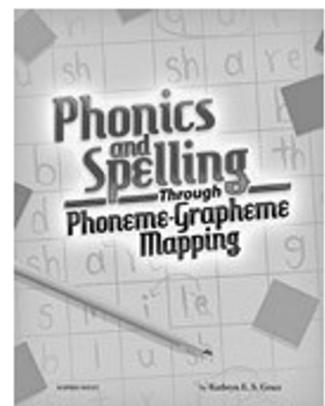
C

T

A

Voyager Sopris
Learning™

Kathryn Grace



Phoneme-Grapheme Mapping Kathi Grace, Cambium Sopris West

- Begin with regular words where the number of phonemes equals the number of graphemes
- Introduce blends
- Introduce digraphs (written in one box)
- Introduce silent letters (e.g., v-c-e, mb)
- Introduce vowel digraphs (e.g. oa, ee)

Phoneme-Grapheme Mapping

- What do you hear?
- What do you write?
- One chip = one sound

Phoneme-Grapheme Mapping

○	○	○		
sh	ee	p		
○	○	○		
s	i	ng		
○	○	○	○	
s	t	o	p	

Builds on phonemic awareness
Phoneme-Grapheme Mapping builds the bridge between sounds and letters

Kathi Grace, PG Mapping

National Reading Panel review concluded that Synthetic Phonics approaches are the most effective for students with reading disabilities

- Teach sounds in isolation
- Provide practice blending sounds into words
- Introduce graphemes, place emphasis on learning how to blend and break words into their basic parts

Importance of Phonics

“... that the logical training for these children would be that of extremely thorough repetitive drill on the fundamentals of phonic associations with letter forms, both visually presented and produced in writing, until the correct associations were built up...” (Orton, 1925, p. 614).

O-G Sequence

1. The child is shown a letter and repeats its name after the teacher.
2. The teacher demonstrates how to form the letter and the child traces over the model. The child then copies the letter, and then writes the letter from memory.
3. Each phonic unit is present on individual cards with consonant letters on white cards and vowel letters on salmon-colored cards. The sound is introduced with a key word. The student repeats the key word before providing the sound (e.g., a _ apple /a/)

4. The letter sounds are taught in groups as rapidly as they can be learned. The first letters are: a (short sound as in cat), b, f, h, j, k, m, p, t.
5. After the names and sounds are learned, blending is introduced. A consonant, vowel, and consonant are presented and the student provides the sounds rapidly until he or she can produce the whole word.

6. The teacher then pronounces a word slowly and separates the sounds. The teacher then asks the child to repeat the word, name the letters, write the word while naming each letter, and then read back the word.
7. Once mastery is assured, additional sounds are introduced. The manual provides the following sequence: g (go), o, initial r and l, n, th (this), u, ch, e, s, sh, d, w, wh, y, v, z
8. Consonant blends are introduced and then the following sounds: qu, x, y, ph, s, and z.
9. The long sounds of all vowels are introduced and the vowel consonant –e spelling pattern (e.g., a-e, safe).
10. The student practices reading material that has a controlled vocabulary (decodable text) to practice this alphabetic approach to words.

- **Begin with sounds, not letters.**
- **Teach short vowel sounds before long sounds.**
- **Teach a few consonants and one or two short vowels and then make words.**
- **Teach continuous consonants first (f, l, m, n, r, and s)**
- **Use a sequence in which the most words can be generated**
- **Progress from simple to more complex sounds**

Source: Blevins, W. (2006). *Phonics from A to Z: A Practical Guide (2nd ed.)*. New York, NY: Scholastic.

Examples of Effective Synthetic Phonics Programs

- Barton
- Corrective Reading
- Herman Method
- Lindamood Phonemic Sequencing Program for Reading, Spelling, and Speech (LiPS)
- Orton-Gillingham
- Phonic Reading Lessons: Skills and Practice
- Project Read
- Slingerland
- Sunday System
- Spalding Method
- SPIRE
- Take Flight
- Wilson Reading System®, Foundations, Just Words
- Zoo Phonics

Scope and Sequence of Phonic Reading Lessons

- Unit I: Short vowels, CVC words
- Unit II: CVCe and consonant digraphs
- Unit III: Consonant blends and digraphs
- Unit IV: R-controlled vowels, vowel digraphs
- Unit V: Common word endings and spelling rules
- Unit VI: Alternative pronunciations and spellings
- Unit VII: Prefixes
- Unit VIII: Suffixes
- Unit IX: Latin roots
- Unit X: Greek roots

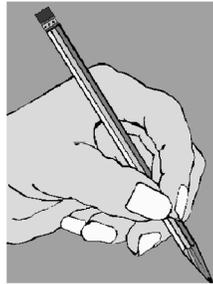
Academic Therapy Publications
20 Commercial Blvd.
Novato, CA 94949 (800) 422-7249,
www.AcademicTherapy.com

Principles of Effective Phonics Instruction

1. **Teach sound blending.**
2. **Provide instruction in decoding (grapheme to phoneme).**
3. **Provide instruction in encoding (phoneme to grapheme).**
4. **Have the student practice skills in decodable text.**

Tracing

- Attention
- Memory (Orthography)
- Sound-Symbol Associations
- Handwriting



Write-Say Method

- Select word and write it on a card.
- Pronounce the word and have the student look at and say the word.
- Have the student pronounce the word while tracing it as many times as needed until he or she can write the word from memory.
- Have the student write the word correctly 3 times from memory and then file in a word bank.
- Review the word periodically to ensure the student can read and spell the word with ease.

Color Coding

- **Green:** Phonically regular words: (e.g., cat, swim)
- **Yellow:** Irregular but frequent patterns (e.g., night)
- **Red:** Irregular (e.g., once)



Introduce exception (irregular) words one at a time.

s ai d

Highlight, enlarge, and/or color code the irregular part. Say the sounds of the regular letters and the letter names of the irregular part.

/s/ A- I- /d/

Moving from Full Alphabetic to Consolidated

- Emphasis is on structural analysis
- Teach prefixes and suffixes
- Glass-Analysis Approach
- Six Syllable Types
- **REWARDS** (Archer, Gleason, & Vachon, Voyager Sopris Learning) (multisyllabic words and reading fluency).
- **Morphology** (Henry & Redding, PRO-ED) *Patterns for Success in Reading and Spelling*

Three Skills for Pronouncing Multisyllabic Words

- Analysis: Where to divide a written word into syllables
- Pronunciation: How to pronounce the individual syllables
- Synthesis: How to combine the syllables to pronounce a spoken word.

Beck, I. L., & Beck, M. E. (2013). *Making sense of phonics: The hows and the whys* (2nd ed.). Guilford Press.

Structural Analysis

Breaking apart words by prefixes and suffixes (affixes) and other meaningful units

The Four Most Frequent Prefixes

Prefix	Meaning
dis-	opposite
in-, im-, il-, ir-	not
re-	again
un-	not

58% of prefixed words in English

Most Frequent Prefixes in Printed English
(26 prefixes account for 97% of prefixed words)

un-	de-	over-
en-	anti-	inter-
mis-	in- (not)	super-
fore-	in (in, into)	under-
semi-	pre-	
re-	trans-	
non-	mid-	
sub-	dis-	

Source: White, T. G, Sowell, J., & Yanagihara, A. (1989). Teaching elementary students to use word-part clues. *Reading Teacher*, 42, 302-308

Four Most Common Suffixes

Suffix	Meaning
-ed	past tense verb
-ing	verb form
-ly	characteristic of
-s, -es	more than one

72% of suffixed words in English

Affixes

Introduce the prefix or suffix in isolation. Underline the affix in words. Practice reading the word part. Have students read the word twice.

- 1. Read the suffix (or prefix), say the entire word.**
- 2. Read the entire word.**

friction instruction deduction

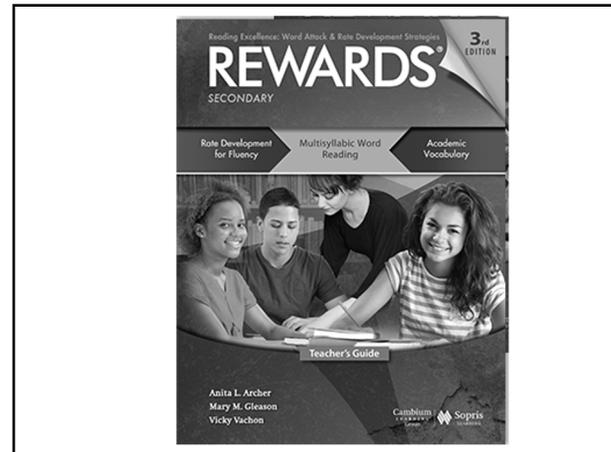
Glass Analysis Method

Easier to Learn, Box 329, Garden City, NY 11530

- **Identify the whole word and the letters and sound of the target cluster**
- **Give the sound(s) and ask for the letter or letters**
- **Give the letter or letters and ask for the sound(s)**
- **Take away letters and ask for the remaining sound**
- **Say the whole word**

Steps in Glass Analysis

1. The word is “carpenter.”
2. What letters make the /er/ sound?
The /ar/ sound? The /car/ sound?
3. What sound or sounds do the letters “ar” make? “ter”? “en”?
4. Say carpenter without the /c/ sound. Say carpenter without the /ter/ sound.
5. The word is “carpenter.”



REWARDS Strategy (Sopris West)

Circle the prefixes

Circle the suffixes

Underline the vowel in the root word

Draw scoops under the parts and say:

What part? What part? What part?
What word?

Independent Reading

Differences in Amounts of Independent Reading

Percentile	Minutes of book reading per day	Words read per year
• 98	65.0	4,358,000
• 90	21.1	1,823,000
• 80	14.2	1,146,000
• 70	9.6	622,000
• 60	6.5	432,000
• 50	4.6	282,000
• 40	3.2	200,000
• 30	1.3	106,000
• 20	0.7	21,000
• 10	0.1	8,000
• 2	0.0	0

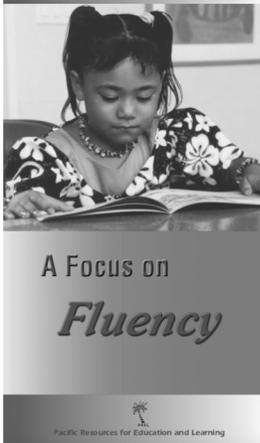
Note. From “Growth in Reading and How Children Spend Their Time Outside of School,” by R. C. Anderson, P. T. Wilson, and L. G. Fielding, 1988. *Reading Research Quarterly*, 23, pp. 285-303. Copyright 1988 by Richard C. Anderson and the International Reading Association.

Defining Fluency

Reasonably accurate reading at an appropriate rate with suitable prosody that leads to accurate and deep comprehension and motivation to read (Hasbrouck & Glaser, 2012).

“Automaticity refers to the ability to perform tasks without actively thinking through them” (p. 15).

Source: Denckla, M. B., & Mahone, E. M. (2018). *Executive function: Binding together the definitions of attention-deficit/hyperactivity disorder and learning disabilities*. In L. Meltzer (Ed.), *Executive function in education: From theory to practice* (2nd ed.) (pp. 5-24). Guilford.



Focus on Fluency
(Osborn, Lehr, & Heibert)
textproject.org
Free download.
Lots of free materials!

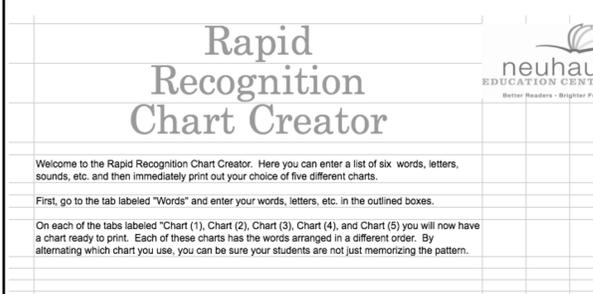
Interventions for Reading Fluency

- **Rapid Word Recognition Chart**
- **Repeated Reading**
- **Books on CD**
- **Great Leaps**

Rapid Word Recognition Chart
Method for practicing quick word reading

1. Use a chart composed of five rows of 6 irregular (or high frequency) words.
2. Time how long it takes the student to read the chart.
3. Count and record number of words read successfully.
4. Review any missed words.

Source: Carreker, S. (2005). Teaching reading: Accurate decoding and fluency. In J. R. Birsh (Ed.), *Multisensory teaching of basic language skills* (2nd edition). Baltimore, MD: Paul H. Brookes Publishing.



Rapid Recognition Chart Creator

Welcome to the Rapid Recognition Chart Creator. Here you can enter a list of six words, letters, sounds, etc. and then immediately print out your choice of five different charts.

First, go to the tab labeled "Words" and enter your words, letters, etc. in the outlined boxes.

On each of the tabs labeled "Chart (1)", "Chart (2)", "Chart (3)", "Chart (4)", and "Chart (5)" you will now have a chart ready to print. Each of these charts has the words arranged in a different order. By alternating which chart you use, you can be sure your students are not just memorizing the pattern.

<https://www.neuhaus.org/document.doc?id=292>

Common Elements of Fluency Methods

- **Read while listening to the same material**
- **Track print with finger or marker**
- **Use high-interest material**
- **Use material at the instructional level**

Repeated Reading

Designed for children who read slowly despite adequate word recognition (Samuels, 1979).

Select a passage from 50 to 100 words long from a book that is slightly above the student's reading level.

Have student read the same passage several times.

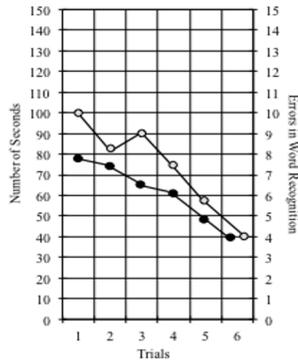
Time the reading and count the number of errors.

Record the reading time and the number of errors.

Use two different colored pencils for recording time and errors, or make time, a circle, and the mark for errors an "X" or square.

Adapted from: Samuels, S.J. (1979). The method of repeated readings. *Reading Teacher*, 32, 403-408.

Repeated Reading Chart



Choosing Text for Repeated Reading

Choose a selection of from 50-100 words at the student's instructional reading level.

If the student takes more than 2 minutes or makes more than 5 to 10 errors, the passage is too difficult.

Determine the number of Words Correct Per Minute (WCPM).

When the student is able to read 80-85 WCPM, increase the difficulty level of the passages.

Types of Interventions between Readings

Provide no interventions.

Review any errors made on the passage.

Have student practice with a peer.

Have student listen to the passage on a recording.

Read the passage with the student.

Improving Reading Fluency

A listening passage preview in combination with repeated reading (reading the passage at least 4 times) was most effective for improving the reading fluency of students with reading disabilities.

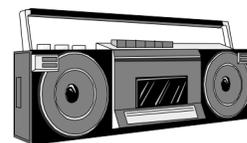
Source: Lee, J., & Yoon Yoon, S. (2017). The effects of repeated reading on reading fluency for students with reading disabilities: A meta-analysis. *Journal of Learning Disabilities, 50*, 213-224.

- Repeated reading remains the most effective intervention for improving fluency in students with learning disabilities.
- Provide a model of fluent reading prior to repeated reading practice.
- Set a performance criterion (how fast the student should read).
- Use of easier level text produced greater gains in accuracy, fluency, and comprehension for most students.
- Correction and feedback can also enhance fluency performance.

Source: Stevens, E. A., Walker, M. A., & Vaughn, S. (2017). The effects of reading fluency interventions on the reading fluency and comprehension performance of elementary students with learning disabilities: A synthesis of the research from 2001 to 2014. *Journal of Learning Disabilities, 50*, 576-590.

Recorded Books

- Have child follow along with the print.
- Ensure that the pace is appropriate.
- Ensure child can follow procedure for finding the place (e.g., chime, page number).
- Encourage repeated listenings.



Great Leaps Reading (C. Mercer & K. Campbell)

Daily timing (one-minute each) and charting of three areas: Phonics: sounds in isolation to cvc, cvvc, cvce patterns; Sight Phrases; and Stories.

Versions for levels:
Grades K-5
Grades 6-8
Grades 9-12

1-877-475-3277 or www.greatleaps.com

Tips for Teaching Fluency

1. Multiple readings improves speed and accuracy (4-5 times).
2. Use instructional level text.
3. Use decodable text with struggling readers.
4. Provide short, frequent periods of fluency practice with concrete measures of progress.

Reading

- Extended time
- Shorter Assignments
- Read for a specific amount of time, not a certain number of pages
- Partner reading



Adjustments: Simple Facts

For some students adjustments must be made in the:

Difficulty level of the material

Amount of material to be covered

Amount of time (extra time does not bring extra knowledge).

Method of acquisition (Technology can help performance).

Log In
Sign Up
Give a Gift

Full Online Curriculum
FOR CHILDREN AGES 2-8

Reading • Math • Science • Art & Colors

Special Offer
49% OFF
Annual Subscription!
Learn More

Try it **FREE** for 30 days!
Click Here to Learn More

Read, Write & Type

TRY IT | How It Works | FAQs | Research | News & Reviews | Testimonials | Parent Corner | Teacher Corner

- Revolutionary reading software that includes phonics, spelling, keyboarding and word processing!
- Special features for students with learning disabilities (LD), reading difficulties, or learning English as a second language (ESL)
- Research-proven boosts reading scores significantly!
- Easy-to-use reading software, assessment software and engaging materials for learning to read and teaching reading!

ESL help in nine languages!

For ages 6 to 9

"Among all the commercially available computer software claiming to offer reading instruction, use like Read, Write and Type the best."

from Straight Talk About Reading, Susan L. Hall & Louisa C. Moats, Ed.D.

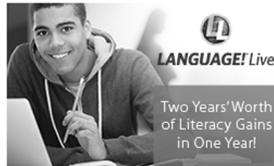
UNLIKE ANY OTHER READING PROGRAM

LEARN MORE!

www.talkingfingers.com

LANGUAGE LIVE!

- Author: Louisa C. Moats, Ed.D.
- Publisher: Voyager Sopris Learning™
- Grades 5-12



LANGUAGE! Live
Balances mastery of foundational skills through online learning with teacher-directed small- or large-group instruction.

Join Great Leaps Digital

- Great for parents & school districts
- For students grades K - 12
- Perfect for long distance tutoring
- Cross-platform compatibility

Sign Up Today!
14 - DAY FREE TRIAL

digital.greatleaps.com
877-475-3277

"Just 15 minutes a day can change everything."

Follow us on @greatleaps

With all programs: Importance of Fidelity

Commitment to ensure consistent student use



Fact: Many teachers are not provided with adequate information and training regarding code-based reading instruction in their education.



“...lower level language mastery is as essential for the literacy teacher as anatomy is for the physician” (p. 99).

Source: Moats, L. C. (1994). The missing foundation in teacher education: Knowledge of the structure of spoken and written language. *Annals of Dyslexia*, 44, 81–102.

“If teachers are better prepared, the impact of reading difficulties, including dyslexia, will be lessened, and many more students will receive the instruction and support they require to reach their potential.”

Press Release: International Dyslexia Association Recognizes Nine Universities for Meeting Teacher Training Standards in Reading *Teachers who are Better Prepared Lessen the Impact of Reading Difficulties* BALTIMORE, May 2, 2012



“To be successful, the most struggling child requires the most expert teacher”

Lose, 2007

My mind is humming with ideas, and I'm thinking about the 40 hour course you were telling us about. I'm wondering if it would be appropriate for our special ed aides? Your slides about the most struggling child needing the most expert teacher really hit home, as in my experience that is often not the case. Would your course be away to remediate that? I don't believe that any of our aides have had instruction in teaching reading and they are the ones working with our LD students.

E-mail from a Special Education Director:
November, 2019

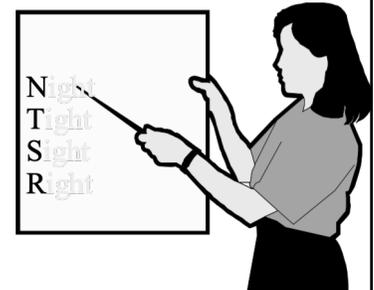
“In the final analysis, reading difficulties can be prevented to the degree that the teacher has a professional understanding of her work” (p. 245).

Source: Betts, E. A. (1936). *The prevention and correction of reading difficulties*. Evanston, IL: Row, Peterson and Company.



Explicit Reading Instruction

Direct
Structured
Systematic
Repetitious
Controlled
Intensive



Teaching reading really is rocket science.



Source: Moats, L.C. (1999). *Teaching reading is rocket science*. Washington, DC: American Federation of Teachers.

“A variety of programs must be available for children who have a variety of needs” (p. 194).

Source: Cruickshank, W. M. (1977). Least-restrictive placement: Administrative wishful thinking. *Journal of Learning Disabilities, 10*, 193-194.

Developing readers need to be provided with reading materials at their instructional level

The level at which the reader demonstrates word recognition of at least 95+%.



Knowing what is needed to help students is not the same thing as being able to provide it.

Source: Kauffman, J. M., Lloyd, J. W., Baker, J., & Riedel, T. M. (1995). Inclusion of all students with emotional or behavioral disorders? Let's think again. *Phi Delta Kappan, 542-546*.

January 27, 2014, 04:00 pm **Make dyslexia a national priority** by Sally E. Shaywitz, M.D. and Bennett A. Shaywitz, M.D Rep. Bill Cassidy (R- La.) has introduced a House Resolution on Dyslexia (H.Res. 456, 113th Congress...“As physician-scientists, we have seen the devastating impact on children and families resulting from the failure by our schools to recognize and address dyslexia; as scientists we know the powerful scientific knowledge that both explains dyslexia and offers an evidence-based route to remediation. Often we wish there were more knowledge to address a problem. In the case of dyslexia, we have the knowledge to do much better for our children and our nation and so rather than a knowledge gap, there is an action gap which H.R. 456 – by bringing science to education - takes a major step to close.”

Solutions

- Provide early intervention with a structured, systematic phonics program, followed by methods to increase reading rate.
- Provide students with highly trained teachers and support with technology to ensure that all children learn to read.
- Ensure that all school personnel feel a commitment to help struggling readers in all grades.

Solutions

- Be eclectic in methodologies.
- Select reading interventions based on a student's developmental levels.
- Ensure that teachers have adequate time to teach reading.

Students with Reading Disabilities Need Understanding Teachers...

- Sympathetic
- Interested
- Developmental
- Process Oriented
- Inspiring



Teacher influence on student achievement has shown to be 20 times greater than other variables, such as class size and poverty.

Source: Fallon, Daniel. (2003). *Case study of a paradigm shift (The value of focusing on instruction)*. Education Research Summit: Establishing Linkages. University of North Carolina.

“Failure in reading is likely to lead to a general sense of inferiority that will cripple the individual's whole life. One of the greatest compensations in remedial reading work is to see the transformation in a child when you have shown him, in spite of his conviction, that he can read” (p. 3).

Source: Dolch, E. W. (1939). *A manual for remedial reading*. Champaign, IL: Garrard Press.