







Development of Remedial Methods for Dyslexia

- <u>1920s</u> Dr. Grace Fernald developed a *multisensory* (VAKT) method at UCLA that involved tracing whole words.
- <u>1925</u> Dr. Samuel T. Orton developed a causal theory for strephosymbolia (twisted symbols: reversals & transpositions), later termed "dyslexia."
- <u>1932</u> Marion Munroe developed an expectancy formula to diagnose reading disabilities, & recommended synthetic phonics during individualized remedial reading.
- <u>1935</u> Anna Gillingham published the "Orton-Gillingham Method" to teach systematic multisensory phonics to dyslexic individuals.
- <u>1960s</u> Beth Slingerland applied the Orton-Gillingham Method to groups of children.
- <u>1970s</u> Pat Lindamood developed the Auditory Discrimination In-Depth Program in California.



"Whole" Language?

- Private clinics (e.g., Lindamood-Bell Learning Center from 1986+) were more helpful for dyslexic students.
- 1990 Dr. Steve Truch established The Reading Foundation in Calgary.
- 1991- published his book: <u>The Missing Parts of Whole</u> <u>Language</u>.
- 1993 Dr. Truch introduced "Phonemic Awareness" to a mixed audience (i.e., clinicians, teachers, administrators) in Winnipeg at a MASP conference.
- Over the next few years, resource teachers in parts of Manitoba got training in the Auditory Discrimination In-Depth Program (now called the LiPS).







































Orthographic Awareness?

Dr. Virginia Berninger

- Orthographic is a Greek word meaning letter forms in written words.
- Receptive Orthographic Coding: to read and spell words, children have to sequentially encode or input the visual images of written words into working memory in such a way that visual units correspond with phonological units.
- Expressive Orthographic Coding: The "orthographic loop" coordinates recall of orthographic codes in working memory with external <u>output</u> through the hand. This supports the integration of reading and spelling written words.

Criterion-Pred	diction Vali	dity
Measures of Literacy	SI Test Correlation	Magnitude
Gray Oral Reading Tests - 4ª Ed.		
Rate	.73	Very Large
Accuracy	.77	Very Large
Fluency	.75	Very Large
Comprehension	.51	Large
Woodcock Reading Mastery Tests		
Word Attack	.71	Very Large
Wide Range Achievement Test		
Spelling	.78	Very Large















Orthographic Awareness Training
by. Dr. virginia berninger
 Select words from the students' reading program to play these games, which are ordered developmentally (e.g., Pre-Primer, Fort, 1.g., 2.). These games should never be played for more than 5 to 10 min. in an instructional session or students will lose focus.
Matching Games
Create game sets by writing individual letters, digraphs, or words on 3 x 5 index cards.
 Have students choose matching letter pairs from a set of visually similar letters or digraph pairs from a set of visually similar digraphs.
f t f dh sh dh
2. Have students choose matching word pairs from a set of visually similar words.
sow was map wag



Sor students who have difficulty with learning to name letters, it helps to have them write the letters and pair the act of naming the letter with writing the letter or tracing over a model of the letter. 1. Have students name the target letter in sets of letters that are visually similar. What's this letter called? What's this letter called? What's this letter called? What's this letter called? It is b Pd k uwvxmnr y p q g j i 2. Have students name each of the 26 letters in random order. (e.g., y v r c z a u t l h n m o q s p b d e g x f l k j w)

Writing Games

Always pair writing the letter with naming the letter. Use the PAL <u>Talking Letters</u> Student Desk Guide (letters with arrow cues) for this game.

- 1. Have students copy the letter from a model of the letter with numbered arrow cues.
- 2. Have students write a letter from memory after the model is covered.
- 3. Have students write a letter from its dictated name.

Tal	Talking Letters								
de	f-	g	h	-i-	j	k		m	
qr	S		U	V	W	X	Y	Z	
	Tal de qr	def qrs	Taiking L defg qrst	Talking Lett defgh qrstu	Talking Letters defghi qrstuv	Talking Letters defghij qrstuvw	Talking Letters defghijk qrstuvwx	Talking Letters defghijk qrstuvwxy	









Purpose: t Instruction chart, stud and record	o improve spe w: After a trie lents are timed the number o	ed of word re f review of th I for 1 minute f words read	e words and a w (or until they co correctly, and th	rds with a pho sarm up in whi implete the ch ie time in seco	netically inegular e ich the teacher poin art) as they read ea nds if under 1 minu	sement. ts randomly to eight to ch word in the squares ta.	ten words on aloud. Then o
wł	10	they		aid	of	people	come
people	ple	ot	10	they		come	said
raid	id	come	pe	ople	they	of	who
the	Y I	bies	60	me	people	who	of
	ne	people		said		of	they
Day	Monday	Tuesday	Wednesday	Thursday	Friday		
No. Correct							
Time (sec.)							

Detr Detr Detr Detr Detr Detr Detr Detr	Name:								Page	of		
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1 1 1000 fbr word is a unstate 2 2 2 2 3. 2 2 2 2 3. 3 3 3 3 3 3. 3	Date [] (M / D / Y)	Copy the words you zeed to learn into the spaces below (shear costs of graphene, officiale, or over alline)	Say da whole word Pars (back (*) balan	Time seta lame in da weri n yen suns Gan, Pit a dation, Balen,	Const Ga word. Than, look upward to the tight, and site works ands hower with your index fingue as you seems them. e.g., "website.e"	While still coroning the motion word to the left, write the word in the space below. Uncover the original word. In your quilling coronal? Hype, go to step 7.	If incoment, underline the difficult pure(s) of the original used. Theo put a check (*) below.	Look upend & houses da didicul da didicul da didicul da didicul da baire, unite da baire, unite da baire, por parte for for	Look at the original word for 2 unit. Cover up perform column. While visualizing the word attent popil of iterms in different positions (e.g., 7, 1 not, etc.) Couly qual the word backwords. Then, write the word in the uncer bairs.	Wate you connect? 25 yes, po a check (r). 25 ast po as (20, 4 media co santhe chem.		
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41. Write for word is a segment 5. 11. Write for word is a segment 6.		4.			6							
5. With the word is a sense		4.1. Write the word in a searceace										
11 Within the word is a sense 6.		5.			6							
6.		5.1. Write the word is a sense ce										
		6.			6							





Orthographic Strategies

- Trace letters in words with a finger. This aids retention & helps to overcome reversals (e.g., b/d, p/q).
- Use visual language (e.g., What do you picture? What do you see?)
 Air write letters, digraphs, and words. Air writing facilitates symbol imagery.
- Image and identify letters in different positions within a word.
- Add, omit or substitute letters in your mind's eye to form new words.
- Spell words backwards, especially phonetically irregular sight words.
- Use matching, searching & naming games or exercises.
- Finger write imaged words on strips of paper, with a bottom line for each letter, before using a pencil to spell the words.
- Use a rapid word recognition chart for irregular sight words.
 Suggestion: Present letters, afixes, and words within a student's right visual
- field because it has a more direct route to the brain's Letterbox area.
- Adaptations: Alternate colors to highlight graphemes in words.
 For dyslexia, use wider letter and word spacing, or try special fonts like "Dyslexie."
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