



The Science of Reading: An Overview

Jan Hasbrouck, Ph.D.
@janhasbrouck

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May I introduce myself...



- I live right here in beautiful Seattle.
- I was a reading specialist and reading coach in Oregon for 15 years.
- I was a researcher/instructor at the U of Oregon then a professor at Texas A&M.
- I work with several publishers to translate reading science into effective classroom tools.
- Volunteer at Salmon Bay K-8 school in Seattle.
- I have a daughter with dyslexia.

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COMPILED ORF NORMS

Hasbrouck & Tindal (2017). *An update to compiled ORF norms* (Technical Report #1702).
<https://www.brprojects.org/publications/technical-reports/>

Grade	%ile	Fall WCPM	Winter WCPM	Spring WCPM
1	90		97	116
	75		59	91
	50		29	60
	25		16	34
	10		9	18
2	90	111	131	148
	75	84	109	124
	50	50	84	100
	25	36	59	72
	10	23	35	43
3	90	134	161	166
	75	104	137	139
	50	83	97	112
	25	59	79	91
	10	40	62	63
4	90	153	168	184
	75	125	143	160
	50	94	120	133
	25	75	95	105
	10	60	71	83
5	90	179	183	195
	75	153	160	169
	50	121	133	146
	25	87	109	119
	10	64	84	102
6	90	185	195	204
	75	159	166	173
	50	132	145	146
	25	112	116	122
	10	89	91	91

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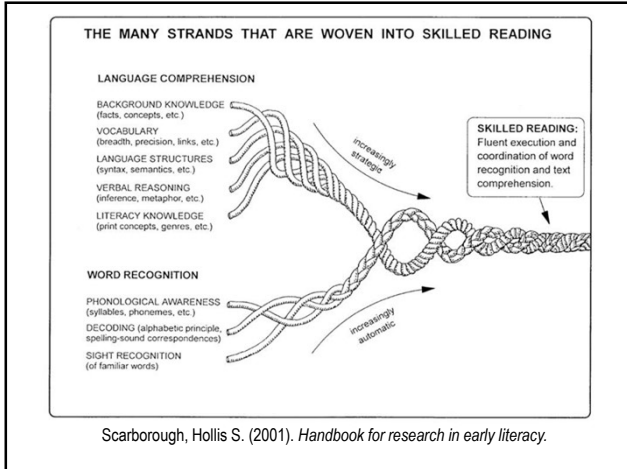


Science

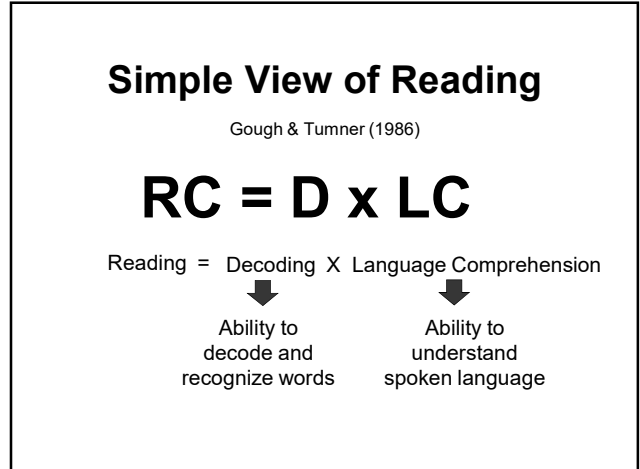
“...human beings were never born to read.”

Dr. Maryanne Wolf
Reader Come Home (2018)

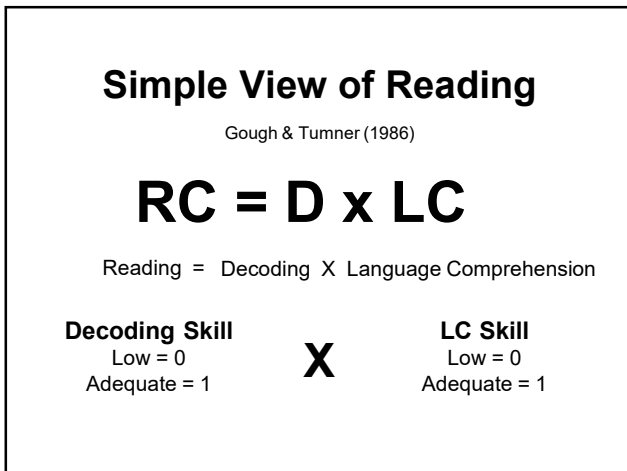
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Noah
 18 year old HS senior
 Dyslexic

One page from his daily journal in English class...

“School just hurts me!”

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Conclusions from reading research:

Compelling evidence from a convergence of reading research is indicating that **90% to 95% of all students can achieve literacy skills at or approaching grade level.** These statistics include students with dyslexia and other learning disabilities. Students succeed when they receive intensive, comprehensive, and high-quality prevention and early intervention instruction, provided by well-informed and well-supported teachers. The most powerful instruction is systematic, explicit, multimodal and intensive, designed to appropriately integrate elements of oral language development, phonemic awareness, phonics and decoding, fluency, vocabulary development, and reading comprehension skills and strategies.

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Tweet from U. S. Department of Education March 11, 2018 4:28 PM


The U.S. ranks 23rd in reading, 25th in science, and 40th in math. Two out of three of our 4th graders can't read at grade level. We are sending far too many students out in the world unprepared. We can and must do better.

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We Have a National Reading Crisis
Ed Week March 7, 2019

Jared Myracle Chief Academic Officer Jackson-Madison County Public Schools, TN
Brian Kingsley Chief Academic Officer Charlotte-Mecklenburg Public Schools, NC
Robin McClellan Supervisor of Elementary C&I Sullivan County Public Schools, TN

 **Chad Hyatt**@PDin140orLESS
...no one is going to be the Chief of Academics without understanding how children learn to read. 7:18 PM - Jan 4, 2019

"Earlier in our careers, we might have thought the same thing. But we each learned critical reading research only *after* entering district leadership."

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"We should declare a No Shame Zone
for this work—to make it safe for all educators to say, *'I have unfinished learning around literacy.'*"

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WHY do we have a
“national reading crisis”???

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Medicine in Mind

Jerome Groopman, M.D.
The New Yorker May 27, 2019 p. 66

“...experimental evidence
gradually became conclusive.”

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Science

Conclusions from reading research:

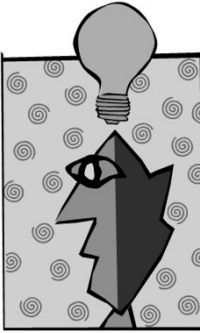
Compelling evidence from a convergence of reading research is indicating that **90% to 95% of all students can achieve literacy skills at or approaching grade level.** These statistics include students with dyslexia and other learning disabilities. Students succeed when they receive intensive, comprehensive, and high-quality prevention and early intervention instruction, provided by well-informed and well-supported teachers.

The most powerful instruction is systematic, explicit, multimodal, and intensive, designed to appropriately integrate elements of oral language development, phonemic awareness, phonics and decoding, fluency, vocabulary development, and reading comprehension skills and strategies.

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EFFECTIVE INSTRUCTION



Systematic

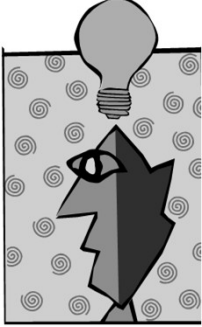
SCOPE of skills & content

SEQUENCE easy-to-hard;
foundational-to-applied;
possible confusions separated

Frequent **REVIEWS**

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EFFECTIVE INSTRUCTION



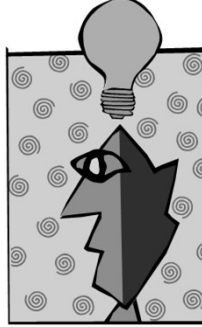
Explicit

3 Steps in Instruction:

- 1- DEMONSTRATION
- 2- GUIDED PRACTICE
- 3- INDEPENDENT PRACTICE

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EFFECTIVE INSTRUCTION



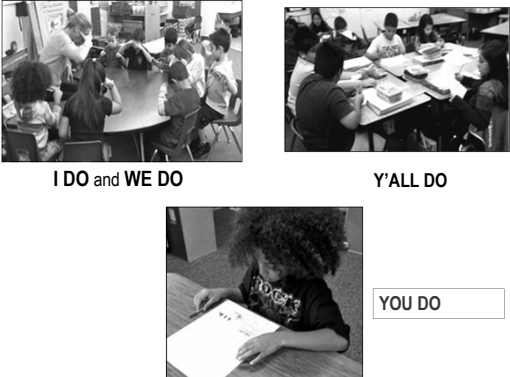
Explicit

4 Steps in Instruction?

- 1- DEMONSTRATION: I do
- 2- GUIDED PRACTICE: We do
- 3- COLLABORATION: Y'all do
- 4 - INDEPENDENT PRACTICE: You do

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This is what it looks like



I DO and WE DO

Y'ALL DO

YOU DO

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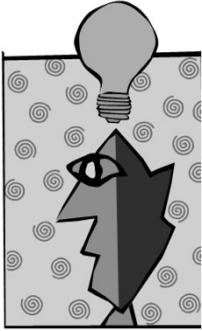


Small groups
and collaborative
practice at
ALL
grade levels
Prek-12+

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EFFECTIVE INSTRUCTION

Active Engagement



Minimum teacher **TALK**

Students **“DOING”**:

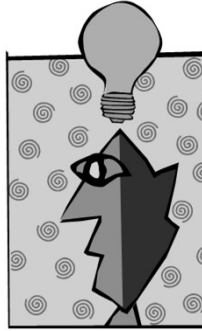
- ORAL reading— most time on connected text
- Encoding words, spelling, writing
- Talking, discussing, sharing, commenting, etc., etc.

Multimodality vs multisensory

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EFFECTIVE INSTRUCTION

Intensive



- **URGENT!**
 - NO wasted time
 - “Perky pace”
- **RELENTLESS!**
 - NO excuses
- **FOCUSED!**
 - Data-driven instruction: *WHO? WHAT? WORKING?*
 - KEY skills taught
 - Linked to standards

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The “Matthew Effect”

“To him that hath, more shall be given; and from him that hath not, the little that he hath shall be taken away.”
Matthew 25:29

The rich get richer and the poor get poorer

Keith Stanovich (1986)

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Children who can decode CAN and DO read more words, develop a larger vocabulary, are better comprehenders, enjoy reading, and thus read MORE...so continue to develop their skills and outpace low-skill peers.

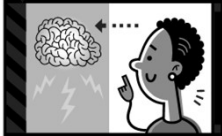
The act of reading itself improves reading.

Keith Stanovich (1986)

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PERFECT
practice
makes
perfect!



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The **MORE** challenges a student has
the **MORE** effective instruction is required.



- 1- **DEMONSTRATION:** I do
- 2- **GUIDED PRACTICE:** We do
- 3- **COLLABORATION:** Y'all do
- 4 - **INDEPENDENT PRACTICE:** You do

DIFFERENTIATED INSTRUCTION?
Amount of high-quality guided practice!

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Science

Children who can decode **CAN** and **DO** read more words,
develop a larger vocabulary, are better comprehenders,
enjoy reading, and thus read **MORE**...so continue to
develop their skills and outpace low-skill peers.

The act of *skillful, accurate* reading itself improves reading.

Keith Stanovich (1986)

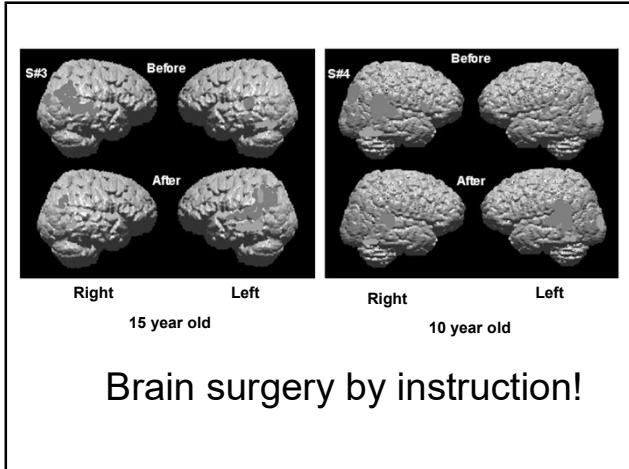
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"Beginning readers can already comprehend spoken
language. They will be able to read if they can just gain
access to language from print. Their task is to build a
new circuit linking the visual code to existing neural
systems for language..."

Dr. Mark Seidenberg
Language at the Speed of Sight (2017)

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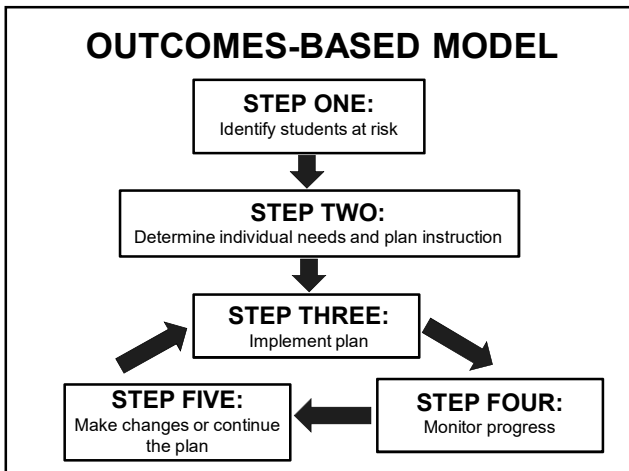
Well-INFORMED?

(1) the **SCIENCE** of reading!

(2) the right **DATA** to answer three key questions:

- **WHO** might need extra assistance?
- **WHAT** kind of help do they need?
- Is the **WORK WORKING?**

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Well-SUPPORTED?

(1) **TIME!**

(2) **Resources**


(3) On-going, high-quality, strategic **professional development**

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WHAT to teach?

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“How do children learn to read?...The answer is the same for all children. Cultural, economic, and educational circumstances obviously affect children’s progress, but *what they need to learn does not change.*”


Dr. Mark Seidenberg
Language at the Speed of Sight (2017)

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Next Steps?

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“Recommended Resources from Read WA”

The Reading League!
Dr. Maria Murray

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