

Reading Comprehension

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Today.....

What is Reading Comprehension?

Current thoughts by prominent researchers
and what we should be considering.....

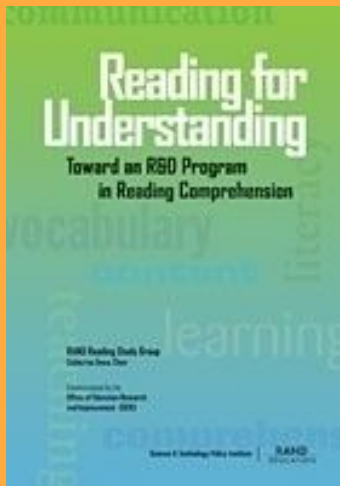
Best Strategies for Teaching and Helping as
Parents

Helpful Resources



What is Reading
Comprehension?
What are current
researchers in our
field saying?

Reading Comprehension Definitions



Comprehension is the ability to understand and gain meaning from text.

Wikipedia

Reading comprehension is the ability to process text, understand its meaning, and to integrate with what the reader already knows.

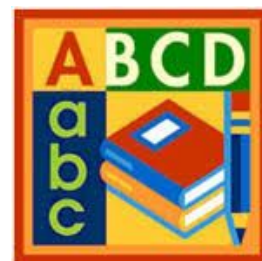
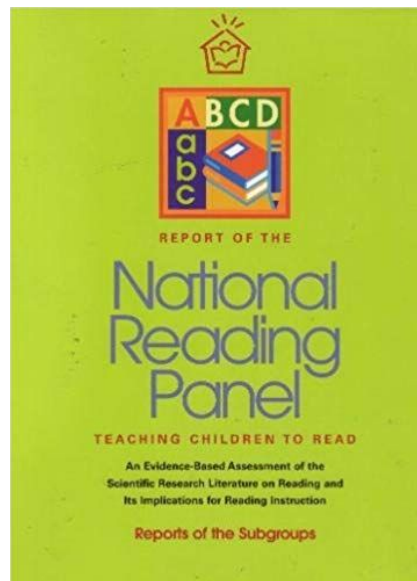
Reading Rockets

In 2002, the RAND Report on Reading for Understanding defined the term “reading comprehension” as the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. We use the words extracting and constructing to emphasize both the importance and the insufficiency of the text as a determinant of reading comprehension.

National Reading Report 2000

“...identify key skills and methods central to reading achievement.”

1. Phonemic Awareness
2. Phonics
3. Fluency
4. Vocabulary
5. Text Comprehension



The Panel also found that reading **comprehension** of text is best facilitated by teaching students a variety of techniques and systematic strategies to assist in recall of information, question generation, and summarizing of information. The Panel also found that teachers must be provided with appropriate and intensive training to ensure that they know when and how to teach specific strategies.



- Reading Comprehension is not a Single Ability
- Schools have dramatically reduced time spent teaching subject matters like science and social studies in lieu of generic reading comprehension instruction
- Skills may help but knowledge is the building block of more knowledge
- We don't have a reading crisis, we have a knowledge crisis.
<http://www.knowledgematterscampaign.org/>
- Given different combinations of text and activity, the best reader can be expected to perform quite poorly and the poorest reader quite well
- Because of the interactive nature of the process, we are unable to reduce Reading Comprehension performance down to a single score
- It's not a single thing

Journal of Learning Disabilities March/April 2014 JM Keenan, CM Meenan

<https://www.ncbi.nlm.nih.gov/pubmed/22442251>

Language and Reading Research Consortium

<https://larrc.ehe.osu.edu/about/larrc/>



Dr. Catts says implications of this research are:

- Stop measuring comprehension as if it is a single thing
- Stop relying on “Reading Comprehension tests” to judge student or school achievement
- Accept the multidimensional nature of reading comprehension and examine more specific educationally-relevant activities involving comprehension



Subject: [SPELLTalk] Updating the NRP

After some thought I'd like to say the NRP list of the big 5 should be updated. Comprehension should be removed and replaced with background knowledge and meta-cognitive skills, creating a big 6. Comprehension is then the result of the big 6.

As it stands now comprehension is essentially listed as contributing to comprehension, as both a variable in the equation and the final result of the equation.

Sorry to get mathy but $P + Pa + F + V + C = C$ doesn't work. Put any function you want between the variables, multiply, divide, etc. It's a confusing and misleading equation no matter how you write it. A function that includes comprehension as a variable results in comprehension? Huh? That only works if the other variables contribute nothing.

Comprehension is not one of the big 5. It is the result of the big 6. We try to improve comprehension by teaching one of the big 6, like a company tries to improve the bottom line by working on one of the many variables that influence it.

Discuss. Steve Dykstra, PhD

Steven Dykstra is a psychologist, advocate, and troublemaker in the reading world. While he may be best known for his comments on SpellTalk and in other forums, he has worked with the most severely traumatized and mentally ill children for more than 25 years. His passion for reading comes from the recognition that the thousands of children he has served often pay the highest price for our failures and mistakes.

Daniel Willingham, PhD.

Psychology Professor at University of Virginia



“Reading tests are knowledge tests in disguise”

Article: How to Get Your Mind to Read The New York Times, Nov. 17, 2018

<https://www.nytimes.com/2017/11/25/opinion/sunday/how-to-get-your-mind-to-read.html>

Scores for high school seniors on the National Assessment of Education Progress reading test haven't improved in 30 years.

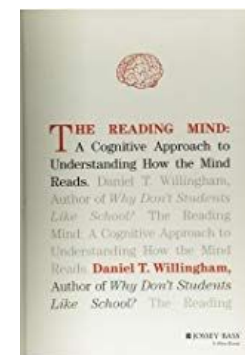
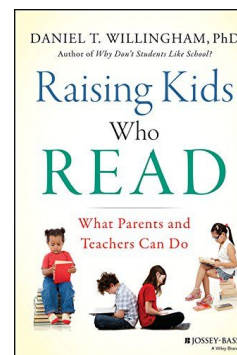
Many of these poor readers can sound out words from print, so in that sense, they can read. Yet they are functionally illiterate — they comprehend very little of what they can sound out. So what does comprehension require? Broad vocabulary, obviously. Equally important, but more subtle, is the role played by factual knowledge.

All prose has factual gaps that must be filled by the reader.

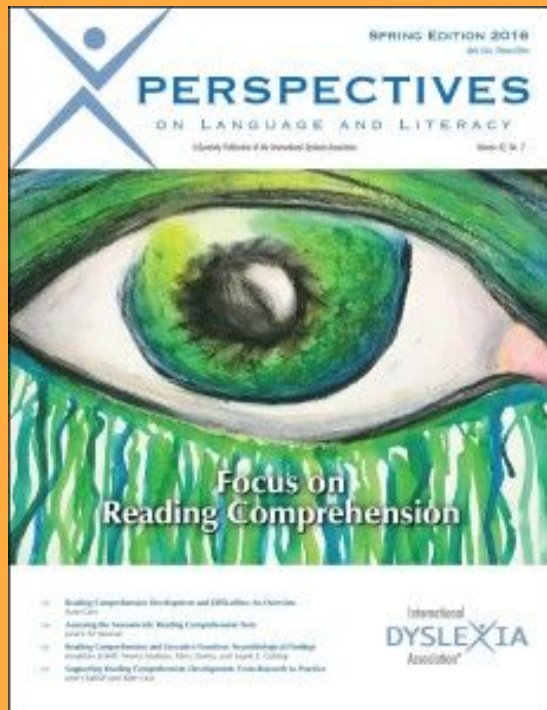
Watch this
video!

Teaching Content IS Teaching Reading

<https://www.youtube.com/watch?v=RiP-ijdxqEc>



IDA
Perspectives
Spring 2016



- **Reading Comprehension Development and Difficulties: An Overview**
 - by Kate Cain
- **Assessing the Assessments: Reading Comprehension Tests**
 - by Janice M. Keenan
- **Reading Comprehension and Executive Function: Neurobiological Findings**
 - by Jonathan Scheff, Neena Hudson, Mary Tarsha, and Laurie E. Cutting
- **Supporting Reading Comprehension Development: From Research to Practice**
 - by Jane Oakhill and Kate Cain

- **Assessing the Assessments:
Reading Comprehension Tests**

by Janice M. Keenan



Failure to recognize the role of background knowledge to reading comprehension performance can result in children being labeled as poor comprehenders when in fact their only deficit may be the knowledge required to understand the topic.

We hope that this knowledge will lead to improved selection of tests for assessment, nuanced interpretation of tests scores, and guidance for development of future tests so that they can better assess the integration of ideas involved in comprehension, while recognizing the role of the comprehender's prior knowledge.



Jane Oakhill, DPhil

University of Sussex, UK

Kate Cain, DPhil

Lancaster University,



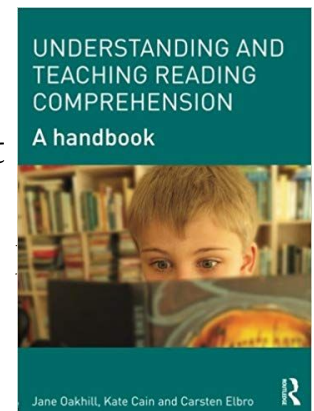
Supporting Reading Comprehension Development: From Research to Practice



Our understanding of how best to teach the skills to support successful reading comprehension development and how best to intervene to mitigate the consequences of reading comprehension failure is less advanced. (than systematic phonics instruction) We believe that we now have the research base to properly inform such teaching and intervention and in this article we suggest critical skills that should form the core of both literacy curricula and interventions to support poor reading comprehension.

Teaching and encouraging children to reflect on the content of the text and their understanding of that content, and to be aware of the adequacy of their understanding, seems an essential step.

In order to teach with confidence and flexibility, and to be able to adapt any text in any genre (and, indeed, to texts in other subject areas), teachers need to understand why particular skills and strategies are important.





<https://t.e2ma.net/webview/dpnwfb/037d5572acdd5fbe83e2179ba69f4915>

Literacy How: Vol. 6, No. 16 November 2018

*Using Writing to Develop Reading Comprehension with Beginning Readers**

The Simple View of Reading ($RC = D \times LC$), tells us that Reading Comprehension (RC) is the product of Decoding (D) and Listening/Language Comprehension (LC).

Research also indicates that knowledge learning should start early (Elleman and Compton, 2017). Building a store of content knowledge works like compound interest. It grows exponentially. For that reason, the earlier that students add to their database of knowledge the better.

<https://t.e2ma.net/webview/1790ob/d4ef13d102bc2aed3902357cdcc2ada7>

Literacy How: Vol. 7, No.3 February 2019

Ending the Reading Wars (Article she wrote after Dr. Nadine Gaab shared her article on The Reading Wars...)

Text comprehension is far more than understanding individual words. It is the outcome of complex and multifaceted processes.

Higher reading comprehension is also associated with higher levels of relevant background knowledge. Like vocabulary, it contributes to meaning activation and inference generation. Executive functions, such as working memory, can also impact comprehension.

www.literacyhow.com/

E.D.Hirsch

<https://www.coreknowledge.org/about-us/e-d-hirsch-jr/>

Core Knowledge Foundation

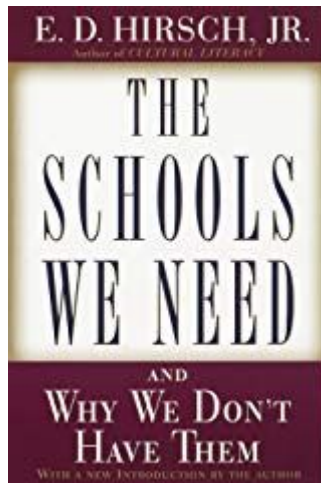


Children can be taught to read—to decode words—but teaching them to comprehend all but the simplest text requires a shared body of knowledge between writer and reader. ED. Hirsch

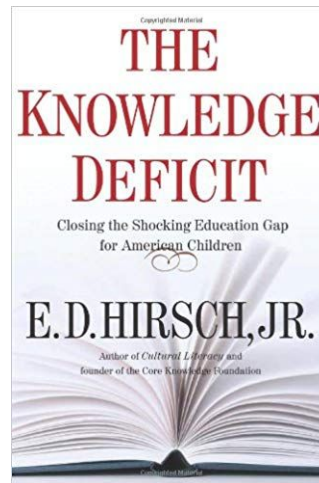
As for the conventional wisdom about him, Hirsch is surely happy to know it's now seen as wrong. "It turns out," says Kati Haycock of the advocacy group The Education Trust, "that Hirsch is not a defender of the Dead White Guys but poor kids, all along." Politico Magazine S/O 2014

<https://www.politico.com/magazine/politico50/2014/ive-been-a-pariah-for-so-long.html#.XKYfxutKjfY>

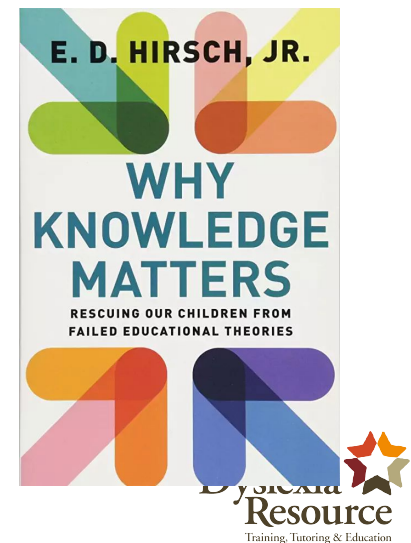
1999



2007



2016



THE MANY STRANDS THAT ARE WOVEN INTO SKILLED READING

LANGUAGE COMPREHENSION

BACKGROUND KNOWLEDGE
(facts, concepts, etc.)

VOCABULARY
(breadth, precision, links, etc.)

LANGUAGE STRUCTURES
(syntax, semantics, etc.)

VERBAL REASONING
(inference, metaphor, etc.)

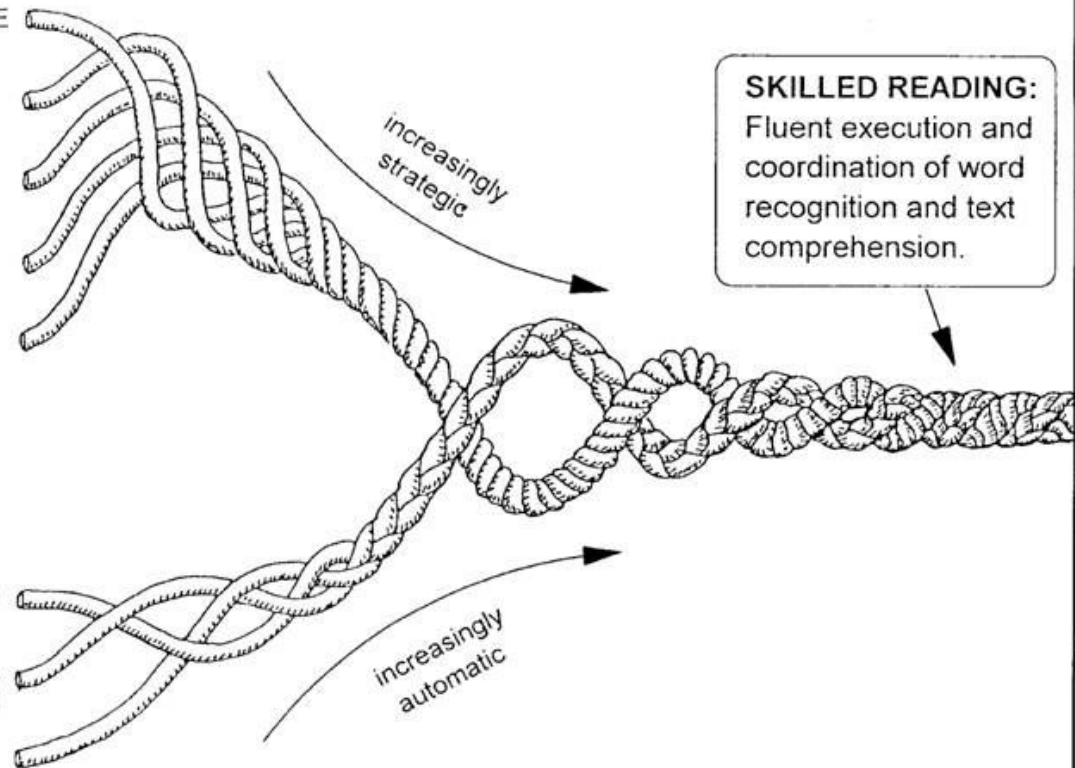
LITERACY KNOWLEDGE
(print concepts, genres, etc.)

WORD RECOGNITION

PHONOLOGICAL AWARENESS
(syllables, phonemes, etc.)

DECODING (alphabetic principle,
spelling-sound correspondences)

SIGHT RECOGNITION
(of familiar words)



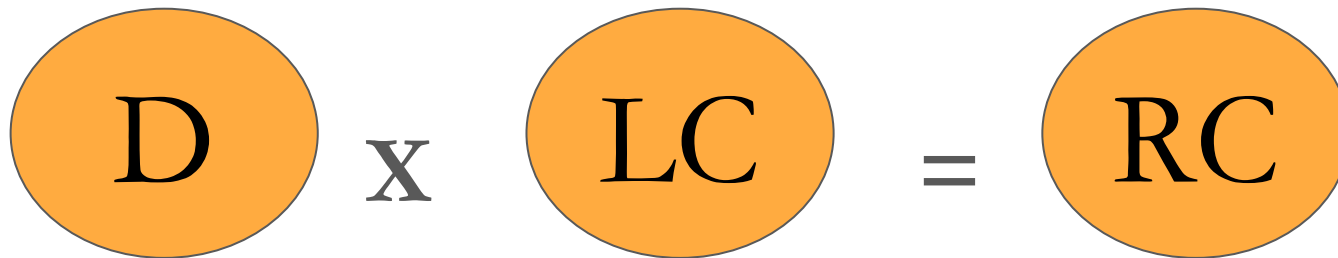
The image originally appeared in the following publication: Scarborough, H. S. (2001). Connecting early language and literacy to later reading (dis)abilities: Evidence, theory, and practice. In S. Neuman & D. Dickinson (Eds.), *Handbook for research in early literacy* (pp. 97–110). New York, NY: Guilford Press.

This is a formula based on the widely accepted view that reading has two basic components: word recognition (decoding) and comprehension. The Simple View formula has been supported and validated by a number of research studies.

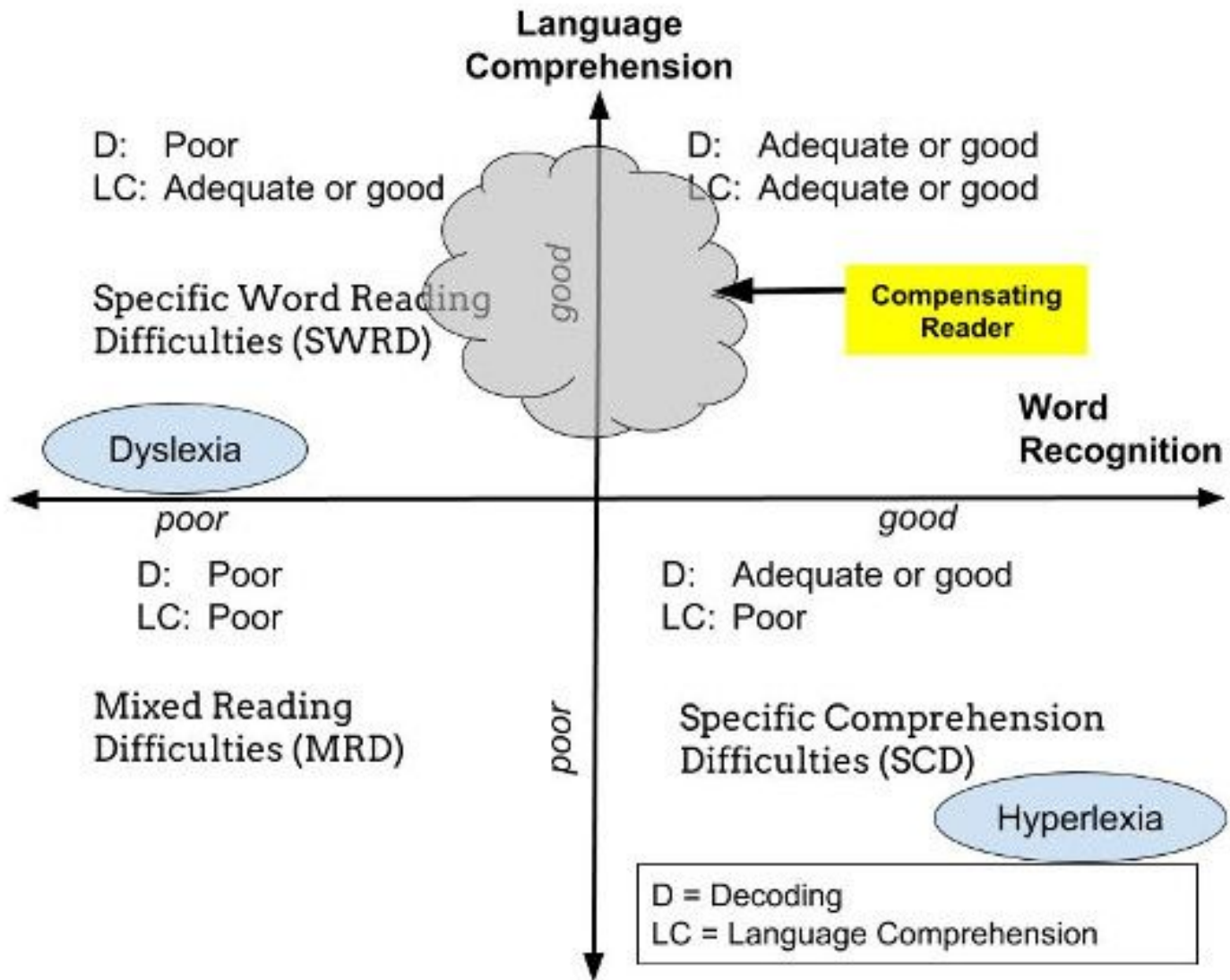
Understanding the formula can help educators with assessing reading weaknesses and providing appropriate instruction.

The Simple View formula presented by Gough and Tunmer in 1986 is:

Decoding (D) x Language Comprehension (LC) = Reading Comprehension (RC)



According to the Simple View of Reading, poor reading comprehension can arise with difficulties with word recognition, listening/language comprehension or both.



Graphic Found on Orton Gillingham Online Academy

Reading Comprehension (RC = D x LC)

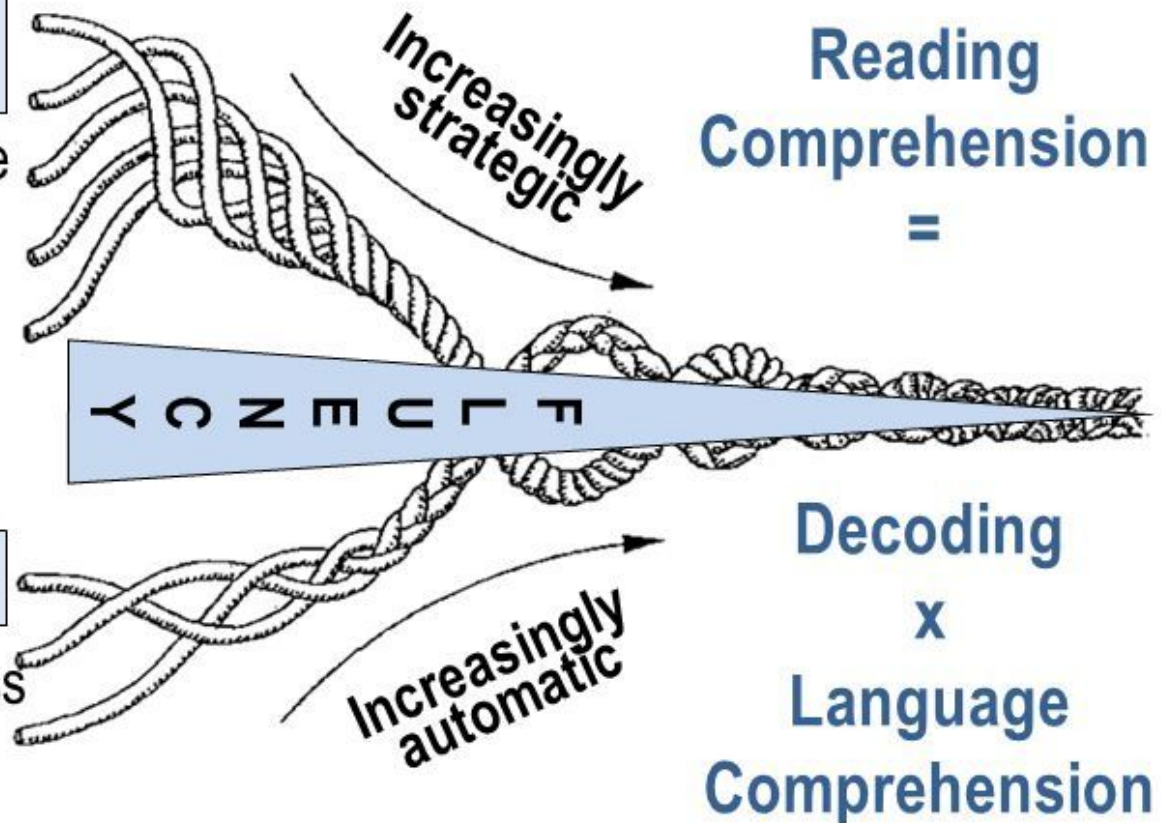
(based on Gough & Tunmer's Simple View of Reading & Scarborough's Reading Rope)

Language Comprehension

- Background Knowledge
- Vocabulary
- Text/Story Structures
- Verbal Reasoning
- Literacy Knowledge

Decoding

- Phonological Awareness
- Phonics & Word Study
- Irregular Words

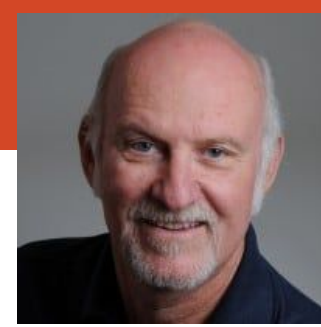


Reading comprehension is complex and increasingly develops over years of explicit and systematic instruction, practice, and application



What are some of
the best teaching
strategies?

How can I help as
a parent?



- Interventions should include the specific strategies and knowledge necessary to successfully complete a task-test scenario
- Look for transfer to other texts or similar tasks
- Schools have dramatically reduced time spent teaching subject matters like science and social studies in lieu of generic reading comprehension instruction
- Teach strategies like “finding the main idea” or “summarization.”
- Students do read subject matter material within Reading Comprehension lessons – but it is one subject one day and another the next – no time to build knowledge
- Skills may help but knowledge is the building block of our mental models

Hugh Catts..... Another plug for Teaching Knowledge.....

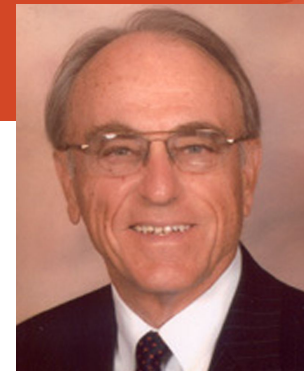
Teaching Knowledge...

- Provides the reader with guidelines by which to search and organize information in the text
- Provides a mental space to put new information
- Allows for inference making to fill in the gaps in the text
- Provides a means for remembering what has been read
- Can be especially beneficial to struggling readers

Comprehension monitoring • Prediction • Find the main idea • Summarizing • Paraphrasing • Generating questions • Inferencing • Visualize • Graphic organizer

The Reading Like a Historian curriculum engages students in historical inquiry. Each lesson revolves around a central historical question and features a set of primary documents designed for groups of students with a range of reading skills.

<https://sheg.stanford.edu/history-lessons>



Concept Oriented Reading Instruction CORI

The Goal: Create a method of improving literacy skills that is highly engaging and effective in establishing use of comprehension strategies to increase reading comprehension

Premise: “motivated students usually want to understand text content fully and therefore, process information deeply. As they read frequently with these cognitive purposes, motivated students gain in reading comprehension proficiency.”

Dr. Joe Torgeson

Florida Center for Reading Research

Core Reading Conference Presentation

Four principles for creating engaged readers:

- When content goals are prominent in reading, students focus on gaining meaning, building knowledge, and understanding deeply, rather than on skills and rewards on skills and rewards
...meaningful conceptual content in reading instruction increases motivation for reading and text comprehension
- Affording students choices of texts, responses, or partners during instruction. **Choice leads to ownership and higher motivation**
- Have an abundance of interesting texts available at the right reading level for every student. **Students more readily read text they can read fluently.**
- **Allow students the opportunity to work collaboratively with ample opportunities for discussion, question, and sharing.**



- Teaching reading strategies is a low-cost way to give developing readers a boost, but it should be a small part of a teacher's job. Acquiring a broad vocabulary and a rich base of background knowledge will yield more substantial and longer-term benefits.
- *Decrease* the time spent on literacy instruction in early grades. Third-graders spend 56 percent of their time on literacy activities but 6 percent each on science and social studies. (Note: Don't freak out - if schools were doing it correctly, they wouldn't need 56% of the day on "literacy")
- Understanding the importance of knowledge to reading ought to make us think differently about year-end standardized tests.

- The systematic building of knowledge must be a priority in curriculum design.
 - The [Common Core Standards for reading](#) specify nearly nothing by way of content that children are supposed to know — the document valorizes reading skills. State officials should go beyond the Common Core Standards by writing content-rich grade-level standards and supporting district personnel in writing curriculums to help students meet the standards.
 - That's what Massachusetts did in the 1990s to become the nation's education leader.
 - [Louisiana has recently taken this approach](#), and early results are encouraging.

Louisiana believes.....Dept of Education Website:

<https://www.louisianabelieves.com/newsroom/news-releases/2018/04/02/state-local-school-systems-ment-to-pilot-innovative-assessment>

Link to this article:

<https://www.aft.org/sites/default/files/periodicals/CogSci.pdf>





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University of Sussex, UK

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Supporting Reading Comprehension Development: From Research to Practice

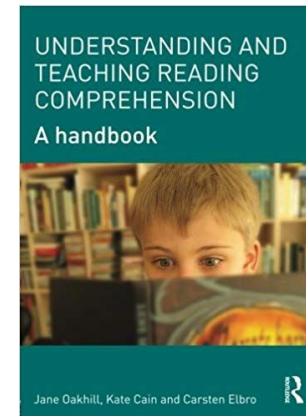


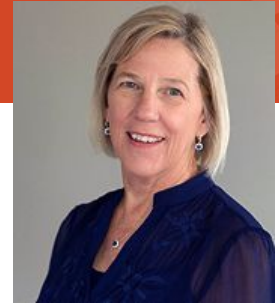
The Article Explores the relevance of:

- Teaching Specific Vocabulary word
- Teaching Children to acquire new vocabulary
- Sentence Level Understanding: Teaching Grammar

And **Higher Level Language Skills:**

- Inference Making
- Comprehension Monitoring
- Knowledge and Use of Text Structure
- Multi-strategy Teaching
- Mental Model through Imagery





- Explicitly teach text structure
- Teach inferencing
- Teach students to answer and generate questions, giving ample opportunities to engage in discussions relating to the meaning of text
- Teach strategies including comprehension monitoring summarizing
- Provide frequent opportunities for student practice with feedback

www.literacyhow.com/



Reading Comprehension Non-Negotiables

A student must be able to read correctly, approximately 95% of the words accurately in order to comprehend what is read.

MOREOVER, to comprehend, a student must know the meaning of 90 to 95% of the words being read.

In other words, a student's reading comprehension depends on:

How well they read the words on the page

How much knowledge they have, and how well they think.

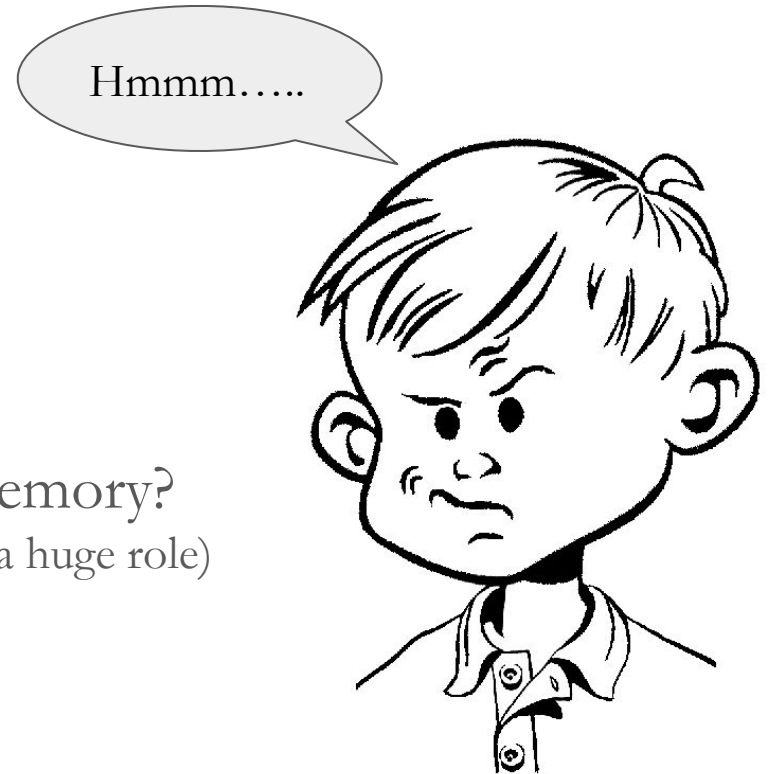
How motivated they are to do "the work" of comprehension



Be diagnostic and prescriptive!

Consider these things to make sure the student/child is thinking critically:

- Cognition
- Self Regulation
- Ability to Attend and Focus
- Background Knowledge
- How is the student's Working Memory?
(some of the Executive Functioning pieces play a huge role)



Also the text characteristics:

- Topic
- Vocabulary
- Text Structure

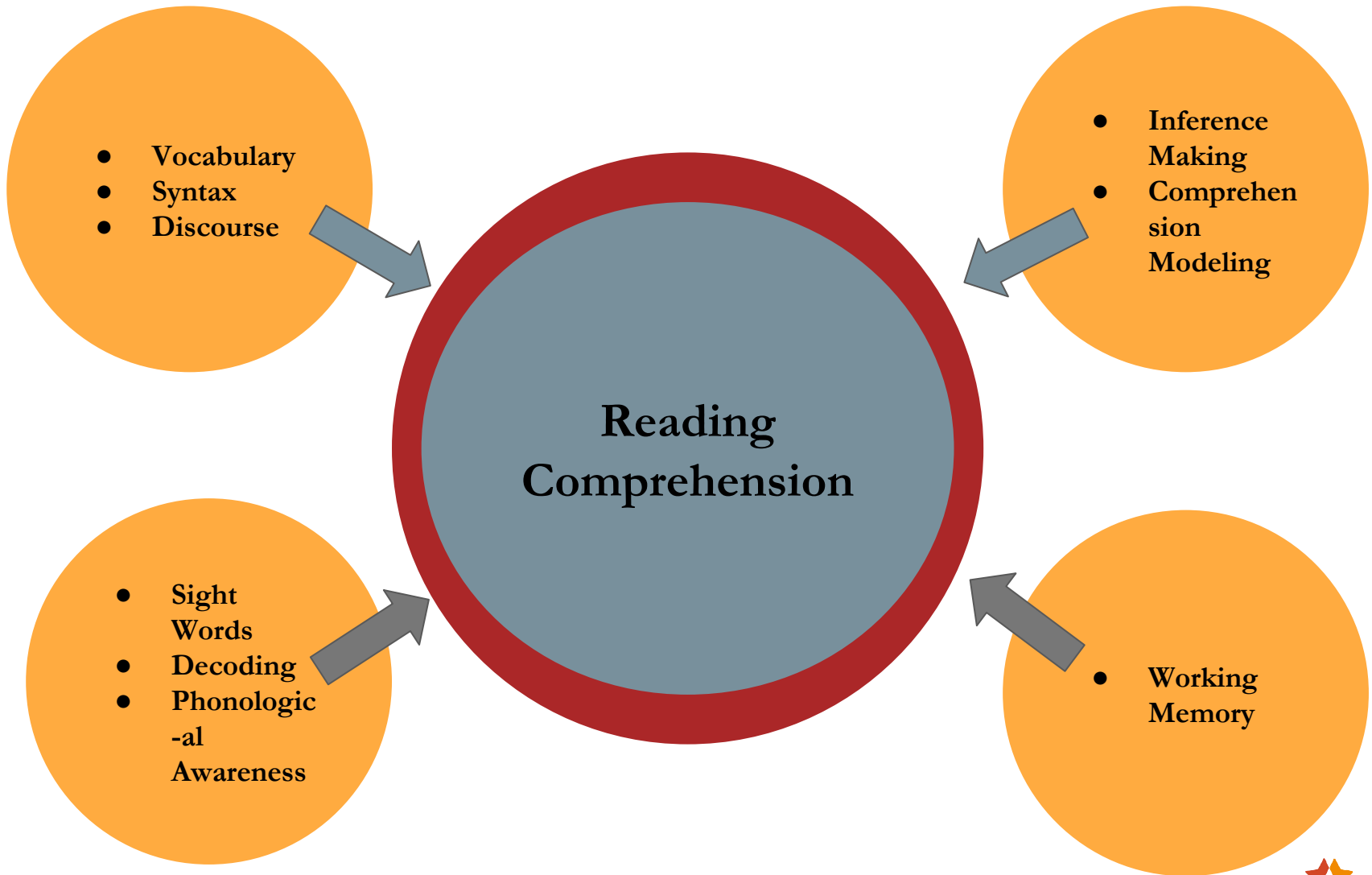
Be diagnostic and prescriptive!

Standard of Coherence plays an important role:

- How interested is the child in the topic?
- Does the student know that he can read it quickly ----just to get the gist OR is this something he must intently read for deeper comprehension?
- Are they able to make a mental representation that emerges as they read? Can they add semantic relations between the text and their background knowledge?
- Is the child fatigued? Are there other distractions?

“The Standard of Coherence” or “the types and strengths of coherence” the reader aims to maintain during reading”
(van den Broek, Bohn-Gettler, Kendeou, Carlson, & White, 2011,

Consider all the different components that make up Reading Comprehension:



When doing error analysis, Ask these questions...



- Is the student able to orally retell the story?
- Can the student answer lower level questions but not higher level?
- Can the student identify the main idea or identify details? only in shorter texts or longer texts too?
- Can the student perform much higher when the text is read aloud?
- Can the student perform much higher when just the questions are read aloud?

You want to have students/children

Questioning, Understanding and Summarizing what they've read

- **Questioning:** Who What? When? How? What is your opinion? What is your prediction? **Visualizing:** I imagine, In my mind I see.... **Making Connections:** What does this remind you of? How is this similar to....? (text to text; text to self; text to world)
- **Understanding/Managing Text:** discuss cause and effect; discuss story elements like the problem/solution or the sequence of the story; compare and contrast; taking a stance!...do you agree or disagree; talk about vocabulary in the story or expressions/idioms; **KWL** charts (I Know, Want to Know, I Learned)
- **Summarize:** What was the main idea? retell the story.... What was the plot? Can you find the topic sentence? Somebody/**W**anted /**B**ut/**S**o.....
What was the moral? The author is trying to tell me....

Use: Graphic Organizers, Illustrations, Charts, Discussions, and WRITING, etc!

Comprehension Instructional Routines FCRR



Kindergarten and 1st Grade	Second Grade and above
Sequence Events in a Text	Identify Story Grammar
Compare and Contrast	Answer and ASk Explicit Questions
Cause and Effect	Identify Main Idea
Author's Purpose	Answering Higher Level Questions
Making Inferences	Sequence Events in a Story
Retell and Summarize	Identify Details to Support Answers

An Amazing website! Florida Center for Reading Research

www.fcrr.org

Go to “Resources....then Empowering teachers”

Parents: READ, READ, READ!

Read to your children for as long as you can! OR Listen to books together!

Balance Reading: Explain how Reading is always a three part process!

1. Reading Easier books for Fluency
2. Reading more difficult books and having some accountability
3. Listening to more difficult books (live or on audio!)

Do all the “Before/During/After Reading” Tasks:

Questioning, Understanding/Managing, and Summarizing Texts:

ASK:

1. What is interfering with my child’s learning?
2. How much is it interfering?
3. Do we need to do anything about it?

Parents:

- Listen to the professionals
- Try not to be defensive
- Listen to what teachers say is happening in the classroom/or therapists
- Try to sort out what the difficulties are and work together to come up with a solution
- Help teachers and other professionals understand dyslexia
- Ask questions!

Assessment of Reading Comprehension

- The goal of assessment is to determine the reasons why a student struggles in reading comprehension.
- Assessment should involve multiple subtests and the assessment of the key skills that underlie reading comprehension and general language comprehension. It is best to have several assessments that would show skills/difficulties in multiple ways.
- An assessment of listening comprehension is recommended for any student who displays difficulty with reading comprehension. Chances are a Speech Language Pathologist will be involved if the student is having trouble with Oral Language or Listening Comprehension
- For ELL students, one of the biggest factors affecting his/her reading comprehension is **VOCABULARY!**
(Teach Morphology)

Assessment: GISA

An Assessment that Hugh Catts mentioned:

Global Integrated Scenario-Based Assessment (GISA: O'Reily & Sabatini, 2016; Sabatini et al., 2016) - based on a multidimensional model of reading - students given a clear plausible purpose for reading - contextualized within a scenario - discipline specific (i.e., questions appropriate to the discipline) - background knowledge measured and/or taught - digitally delivered (text, websites, e-mails, images) - give examples of appropriate answers (e.g., written summary example) - digital “peers” that allow for collaboration (e.g., ask questions of reader)

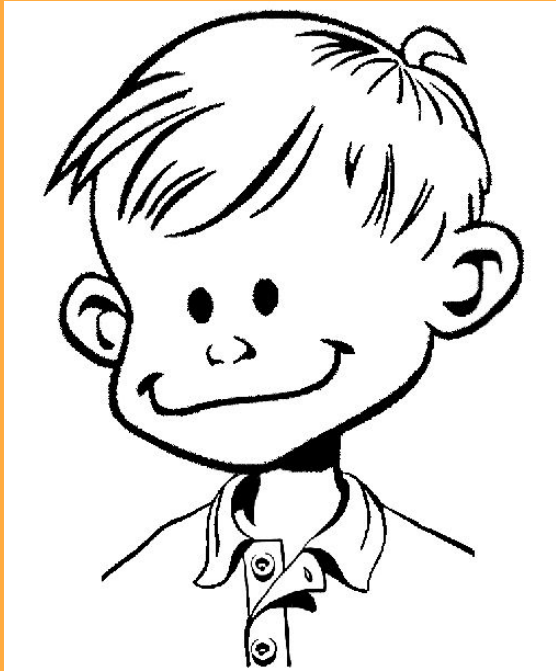
GISA is a pilot test that was developed as part of a research initiative and is not being used in classrooms. However, scenario-based testing is beginning to find its way into other tests, both of reading and of other content areas. The National Assessment of Educational Progress (NAEP), for example, has begun piloting “GISA-like” scenarios in reading, science and other disciplines, says Pearson, who serves as the chair of NAEP’s standing committee on reading.

<https://news.ets.org/stories/scenario-based-assessments-hold-new-promise-uncovering-reading-ability/>

Also: Guess who has a lot about Assessment?

Yes, Reading Rockets! In the Reading 101 Section!

<http://www.readingrockets.org/teaching/reading101-course/modules/assessment/assessment-practice#fytH1>



Resources to help
you create happy
comprehenders
filled with
knowledge!

Must USE THIS WEBSITE!

“Reading comprehension draws on a broad range of skills and habits. Background knowledge and a deep vocabulary are two of the most critical ingredients in becoming a good reader.” Reading Rockets

To help you with classroom assessment:

<http://www.readingrockets.org/article/types-informal-classroom-based-assessment>

For comprehension info:

<http://www.readingrockets.org/teaching/reading101-course/modules/comprehension-introduction>

For Strategies!:

<http://www.readingrockets.org/strategies#skill1042>

For Comprehension 101: Amazing!

<http://www.readingrockets.org/teaching/reading101-course/modules/comprehension/comprehension-practice>

Reading Rockets

www.readingrockets.org



Launching young readers!

Reading Rockets

One of my ABSOLUTE favorite websites:

www.understood.org

<https://www.understood.org/en/school-learning/learning-at-home/encouraging-reading-writing/graphic-organizers-for-reading>



greatschools.org - great information

<https://www.greatschools.org/gk/articles/reading-comprehension-research/>

<https://www.greatschools.org/gk/book-lists/books-boost-second-graders-reading-comprehension/>



More Resources:

Read Naturally

www.readnaturally.com



Ellen M. Hill

ehill@schenck.org

This link for Comprehension

<https://www.readnaturally.com/research/5-components-of-reading/comprehension/>

APPS! Article on Great Apps from IDA website

<https://dyslexiaida.org/dr-cheesmans-app-chat-dont-miss-these-award-winning-apps-for-vocabulary-and-comprehension/>

Children of the Code Videos - lots

<https://childrenofthecode.org/interviews/perfetti.htm>

Dr Charles Perfetti



Final Thoughts:

- Focus on Strengths – let them be a whole child
- Gentle, kind toughness
- Encouragement
- Be Honest – “This is your lot in life. I know its hard. But you can do it!”
- Emphasize the gifts they have
- Let them participate in and explore their extra-curricular activities and talents!

AND....FILL THEIR HEADS WITH KNOWLEDGE!!!

“Learning TV”, Experiences, Sharing, Reading,
Trips, Museums, Documentaries!!!

But MOST OF ALL.....

Enjoy these dyslexics!!!!

mmmm...Butter Beer!

