

IRLA Developmental Reading Taxonomy: Research Base

1 Yellow

Executive Function

Students drive the reading process before they are able to read any words. They memorize the repeated sentence stem and “read” the picture clues to figure out what the one new word on each page might be. This early reading is quite fluent.

From the outset, good readers have clear goals in mind for their reading. They constantly evaluate whether the text and their reading of it is meeting their goals. As they read, good readers frequently make predictions about what is to come. Good readers draw from, compare, and integrate their prior knowledge with materials in the text. Comprehension is a consuming, continuous, and complex activity, but one that, for good readers, is both satisfying and productive.

Duke, N, and Pearson, D. (2002). *Effective practice for developing reading comprehension*. In Alan E. Farstrup and S. Jay Samuels (eds.). *What research has to say about reading instruction*. Newark, DE: IRA.

2 Yellow

Tracking

One-to-One Matching Voice to Print

The ability to identify words in a text as individual nameable objects appears to be a “watershed” event in learning to read. Children who cannot point to individual words as they “read” a memorized text learn few words and cannot reliably segment spoken words...Lacking a stable concept of word as a bound figure with a beginning and an end, they cannot know where to focus their attention. (p. 9-10)

Henderson, E. (1980). *Developmental concepts of word*. In E. Henderson & J. Beers (Eds.) *Developmental and cognitive aspects of learning to spell; a reflection of word as knowledge*. Newark, DE: IRA.

To make any sense whatsoever out of their classroom activities, children must already understand or quickly catch on to the idea of what a word is. (p. 298) Print maps to speech, word by word, with little spaces in between. For many, awareness of this mapping may be all that is needed to provoke awareness of words. (p. 338)

Adams, M. (1990). *Beginning to read*. Cambridge, MA: MIT Press.

Observational records of the first year of reading showed all children passing through a stage of locating words one by one, as if the identification of written oral symbols were better emphasized by finger pointing than by “finger-flow” along the whole sentence. Once one-to-one correspondence was established, good readers gave up using their hands as their speed of reading increased. (p. 255)

Fluency gives way to word by word reading. At that point the child over-emphasizes the breaks between words and points with his finger. He has taken a major step in integration of this early learning when his reading slows down and even becomes staccato. He may be thought of as reading the spaces. (p. 141)

Clay, M.M. (1979). *Reading: the patterning of complex behavior* (2nd ed.). Portsmouth, NH: Heinemann Educational Books, Inc.





3 Yellow

Initial Consonant Sounds

First letter cues narrow uncertainty and limit possible responses. (p. 162)

Clay, M.M (1979). *Reading: The patterning of complex behavior* (2nd ed.).
Portsmouth, NJ: Heinemann Educational Books, Inc.

Very early in the course of instruction, one wants the students to understand that all twenty-six of those strange little symbols that comprise the alphabet are worth learning and discriminating one from the other because each stands for one of the sounds that occur in spoken words. One must show the students that letters do represent speech sounds. So how might one best illustrate this rule? Most obviously it is through the single consonants. With gratifying frequency, the mapping from single consonants to phonemes tends to be one to one.

Adams, M. (1990). *Beginning to read*. Cambridge, MA: MIT Press.

1 Green and 2 Green

First 120 Sight Words

One hundred words account for almost half of the words we read and write. Ten words account for almost 25%. As soon as possible children should learn to read and spell these high-frequency words. (p. 88)

Cunningham, P.M. (2012). *Phonics they use* (6th edition). Boston: Pearson.

Many basic function words in English pose problems for young readers in two ways. First, these words are poorly distinguished orally (“I want a glass uh milk”). Second, many sport spelling-sound correspondences that are irregular, or at least sophisticated relative to entry-level phonics standards. Because these words arise so frequently (and take on new importance) in written text, it is wise to help students master their spellings and usages before decodable texts are introduced. (p. 20)

Samuels, S.J., & Farstrup, A.E. (2011). *What research has to say about reading instruction*. Newark, DE: IRA.

The quickest, easiest, and most appropriate way to teach students a basic set of sight words so that they can begin reading meaningful materials is to teach them as whole words. As the name suggests, the whole-word method treats words as intact units without giving attention to individual letters or their sounds. (p. 70)

It is also extremely important that children move beyond the point at which they are simply accurate in recognizing these words on sight to the point at which they automatically recognize them on sight. Students need to recognize these words instantaneously—without thought, without hesitation, and without any interruption of the process of reading a selection in order to understand it. (p. 69)

However sight words are initially introduced, by far the best practice for mastering them is for students to read them repeatedly in meaningful materials.

Graves, M., et.al. (1999). *Essentials of elementary reading*. Boston, MA: Allyn & Bacon.





1 Blue

One Syllable Words

Students are able to figure out most one-syllable words through analogy.

Students decode a word by making an analogy to a known sight word. When students encounter an unknown word, we encourage them to think of a word they know with the same spelling pattern. In the case of “tram,” for example, most students think of “am.” Students might say to themselves, ‘If I know ‘am,’ than I know ‘tram.’

Similarly students might use the known words “can” and “her” to decode “banter.” According to Ehri (1991) students must have stored known words in memory—and fully analyzed them—to be successful in using the analogy approach independently.

Gaskins, I. (2004, March). Word detectives. *Educational Leadership*, 60 (6), 70-73.

Phonograms offer a means of helping children not just to analyze the sounds of syllables but to work from syllables (chunks, Zones 1-3) to phonemes (individual letter sounds, Zone 4) in a psychologically stepwise, and thus more supportive, manner. They offer a means of teaching children not just letter sound correspondences, but letter-sound correspondences as conditioned by the letter’s position in a syllable and its larger orthographic environment. They offer a means of teaching children not just spelling patterns but spelling patterns that correspond to frequent, coherent, syllabic units. (p. 327-328). Students learn to orally segment, rearrange, and substitute one phoneme and/or phonogram for another and can use rime, on-set, and analogy to decode and spell most one-syllable words encountered in text. (p. 322).

...phonic generalizations about the pronunciations of individual vowels and vowel digraphs are frustratingly unreliable. As it turns out, however, vowel sounds are generally quite stable within particular rimes. Even the “irregular” behaviors of vowel spellings are relatively rime specific. (p.320).

Adams, M. 1990. *Beginning to read*. Cambridge, MA: MIT Press.

2 Blue

Two Syllable Words

Students decode compound words, words with inflectional endings, and most other two-syllable words, using the analogy strategies learned in 1Blue.





1 Red

Three Syllable Words familiar from Everyday Speech. Automaticity and Prosody.

Students use morphemes (prefixes, roots, suffixes) they already know to decode and understand words they don't know.

The patterns in words of three or more syllables are not onsets and rimes. Rather, they are morphemic units commonly referred to as roots, prefixes and suffixes. English is the most morphologically complex language. Linguists estimate that for every word you know, you can figure out how to decode, spell and build meaning for six or seven other words if you recognize and use the morphemic patterns in words.

Nagy, W.E., & Anderson, R.C. (1984). Quoted in Cunningham, P. (1998). *Month by month phonics for upper grades*. Greensborro, NC. Carson-Dellosa Publishing.

Automaticity: Automaticity refers to the ability to read words in text accurately and effortlessly or with minimal attention. (LeBerge & Samuels, 1974; Logan, 1997). As readers become increasingly automatic (as well as accurate in recognizing words), the reader's required attention to word recognition diminishes. As such, the reader has greater capacity to employ higher-level thinking process. (p. 3)

Prosody: Prosody refers to the ability to read orally with appropriate expression or intonation coupled with phrasing that permits and enhances the construction of meaning. (Schreiber, 1980). By incorporating natural break points in language when reading connected text, prosody allows the reader to comprehend by holding a meaningful sequence of words in working memory (Kuhn, Schwanenflugel, ,Meisinger, 2010). Readers are thus able to parse meaning using expression and volume, phrasing and intonation, smoothness and pace (Rasinski & Padek, 2005).

Rasinski, T. (2013). *Supportive fluency instruction; the key to reading success (especially for students who struggle)*. Oakland, CA: A Scientific Learning Whitepaper.

2 Red

All 3-4 Syllable Words Familiar from Everyday Speech. Chapter Books From Decoding to Stamina:

Children at the transitional stage read a lot of "series" books. Through their shared characters, settings, and events, these books support transitional readers' development just as repetitive language and structure of emergent and early text support them when they were starting out.

Taberski, S. (2000). *On solid ground: strategies for teaching reading K-3*. Portsmouth, NH: Heinemann.

Readers divide big words as they see them based on interletter frequencies.

Good readers "chunk" or divide words into manageable units. They do this based on the brain's incredible knowledge of which letters usually go together in words. ...Words we have read before are almost instantly pronounced based on spelling patterns as the brain has seen in other words. If the word is a big word, the brain uses its interletter frequency knowledge (based on all the words it knows) to chunk the word into parts whose letter patterns can then be compared. (p. 230).

Cunningham, P.M. (2012). *Phonics they use* (6th edition). Boston: Pearson.





White

Why Vocabulary?

Vocabulary knowledge is fundamental to reading comprehension; one can't understand text without knowing what most of the words mean. A wealth of research has documented the strength of the relationship between vocabulary and comprehension. The proportion of difficult words in a text is the single most powerful predictor of text difficulty, and a reader's general vocabulary knowledge is the single best predictor of how well that reader can understand text (Anderson & Freebody, 1981).

Nagy, W.E. (1988). *Teaching Vocabulary to Improve Reading Comprehension*. Urbana, IL: ERIC Clearinghouse on Reading and Communication Skills.

Vocabulary Is Acquired Through Wide Reading

From at least the beginning of the 20th century, educational researchers no less prominent than Thorndike associated learning from context via "wide reading" as the way vocabulary was learned. The importance of wide reading to vocabulary development is supported by more current researchers (Anderson, Wilson, & Fielding, 1988; Nagy & Herman, 1985). Few would disagree that wide reading is a major way people learn words, nor would they argue against the need for schools to support wide reading.*

Studies estimate that of 100 unfamiliar words met in reading, between 5 and 15% of them will be learned (Nagy, Herman, & Anderson, 1985; Swanborn & de Glopper, 1999). However, in order for any word learning to occur from reading, two conditions need to be met. First, students must read widely enough to encounter a substantial number of unfamiliar words; that means they must read enough text to encounter lots of words and they must read text of sufficient difficulty to include words that are not already familiar. Second, students must have the skills to infer word meaning information from the contexts they read.

Beck, I.L., McKeown, M.G., & Kucan, L. (2013). *Bringing Words to Life*. New York: The Guilford Press.

Learning Vocabulary Through Reading Requires...

Word Learning Strategies

Overturf et al. suggest teachers should help students learn how to determine the meaning of unfamiliar words and phrases by nurturing their growing capacity with word learning strategies. When students learn to use context, become morphologically aware, and can reference materials with ease, they are better equipped to figure out the meanings of the new word they encounter.

Overturf, Montgomery, & Smith (2013). *Word Nerds: Teaching All Students to Learn and Love Vocabulary*. Portland, ME: Stenhouse.

Word Consciousness

If we can get students interested in playing with words and language, then we are at least halfway to the goal of creating the sort of word-conscious students who will make words a lifetime interest.

Graves, M.F. (2006). *The Vocabulary Book: Learning & Instruction*. New York: Teacher's College Press.





Black

A Robust Word Schema

A schema is a framework for understanding. When we help build and activate students' word schemas, their vocabulary knowledge grows exponentially.

Brenda J. Overturf, Leslie Montgomery, and Margot Holmes Smith (2013).

Word nerds: Teaching all students to learn and love vocabulary. Portland, ME: Stenhouse Publishing.

Sometimes a reader can use the information within the word, such as deciphering the meaning of prefixes, roots and suffixes. Sometimes the reader can find hints in the sentence to figure out what the word means. In other instances, the reader has to search for clues in sentences coming before or after, look at the larger passage, or decide whether the inferred definition makes sense within the type of text (Blachowicz et al. 2013). Students also make connections to their own background knowledge when deciding what a new word means (Nagy and Scott 1990). They connect the word to words they already know. Sometimes they know a synonym or an antonym. These patterns of word learning are called word schemas.

Brenda J. Overturf, Leslie Montgomery, and Margot Holmes Smith (2015).

Vocabularians: Integrated word study in the middle grades. Portland, ME: Stenhouse Publishing.

Acquiring a Series Habit

Series page turners are not always great literature, but the predictable frameworks and familiar characters allow students to significantly increase their silent reading speed. This speed and ease of reading is essential for handling more complex and languid description in subsequent reading levels.

Generations of readers have read the covers off the dime novels and cheap library books and later the series books because these fictional materials offer readers an experience they don't get from other kinds of reading. We know that series books outrank other books in popularity and have done so consistently since the publication of the first Rover Boys books in 1899...When reading choices were correlated with IQ scores in a Pittsburgh study of 5,510 pupils in 1930, the more intelligent readers reported reading twice as many series books (Soderbergh, 1980, pp. 68-69) (214-15).

Catherine Sheldrick Ross (1995): "If they read Nancy Drew, so what?":

Series book readers talk back. Library and Information Science Research.





Orange

Why Genre Matters

The concept of genre is a powerful one. I use it frequently to understand and explain literacy practices. I use my knowledge of the conventions of text genres as a stance to help me understand or construct texts. By perceiving a text as a novel, for example, I know, as Rabinowitz (1987) has noted, that I need to attend to certain salient cues, as titles, endings, key events; to predict story outcomes; to infer prototypical character traits, beliefs and goals; and to interpret thematic meanings. And, by perceiving a novel as a mystery, I know, with Berger (1992), that the detective is typically more competent than the bungling police, is eccentric or unusual, is able to sort out clues and herrings, is often setting a trap for the criminal, and is able to explain the criminal's motives at the END. When texts deviate from my genre expectations, I learn to revise or readjust those expectations, a process that can be challenging but aesthetically enjoyable.

Richard Beach (1995). In Harris, T. L., & Hodges, R. E. (Eds.). *The literacy dictionary: The vocabulary of reading and writing*. Newark, DE: International Reading Association.

Genre as a Cueing System

Every piece of writing, every text we read, comes to us both as a text—the piece it is—and as a kind of text—an instance of genre. And what kind of thing it is puts some limits as to what we expect to find there. Genre, an often overlooked cueing system in reading, constrains our prediction and lays down a track for our reading.

Bomer, R. (1995). *Time for meaning: Crafting literate lives in middle and high school*. Portsmouth, NH: Heinemann.

In order to become competent, literate members of society, students must be able to navigate multiple genres... Because these forms of text are unique and require unique strategies for reading and writing, it is not safe to assume that students who are competent with one genre will automatically master another. Students need to learn about particular genres through implicit experience and explicit instruction.

Heather Lattimer (2003). *Thinking through Genre: Units of study in reading and writing workshops grades 4–12*. Portland, ME: Stenhouse Publishing.

Making predictions is a strategy in which readers use information from a text (including titles, headings, pictures, and diagrams) and their own personal experiences to anticipate what they are about to read (or what comes next). A reader involved in making predictions is focused on the text at hand, constantly thinking ahead and also refining, revising, and verifying his or her predictions. This strategy also helps students make connections between their prior knowledge and the text.

Jessica Fries-Gaither (2011). Making predictions: A strategy for reading and science learning. Retrieved from <http://beyondweather.ehe.osu.edu/issue/the-sun-and-earths-climate/making-predictions-a-strategy-for-reading-and-science-learning>





Purple

Why Genre Schema Matters

Genre as a Cueing System

Language, broadly defined, is inherently social. Genres develop and function to enable social interaction (Cole 1996). As such, they are dialogic—they arise from some past communications and are used to anticipate future responses (Bakhtin 1981). (p. 7)

—Duke, N. K. (2012). *Reading and writing genre with purpose in K-8 classrooms*. Portsmouth, NH: Heinemann.

Genres are not simply features of texts, but are mediating frameworks between texts, makers and interpreters. Fowler argues that ‘genre makes possible the communication of content’ (Fowler 1989: 215). Certainly the assignment of a text to a genre influences how the text is read. Genre constrains the possible ways in which a text is interpreted, guiding readers of a text towards a preferred reading (which is normally in accordance with the dominant ideology)—though this is not to suggest that readers are prevented from ‘reading against the grain’ (Fiske 1987: 114, 117; Feuer 1992: 144; Buckingham 1993: 136).

—Daniel Chandler (2010). *An Introduction to Genre Theory*. In Bawarshi, A. S., & Reiff, M. J. *Genre: an introduction to history, theory, research, and pedagogy*. West Lafayette, IN: Parlor Press.

Teaching Genre Schema Prepares Students to Handle Any Genre

Helping students learn how to learn about different genres of writing empowers them...to develop habits of mind related to learning a genre, so that they can learn in whatever genres they need.

—Randy Bomer (1995). *Time for meaning: crafting literate lives in middle and high school*. Portsmouth, NH: Heinemann.

It would be nearly impossible to prepare each student for all the potential texts that they might encounter over the next fifty, sixty, or seventy years. However, by teaching students to engage in an inquiry-based approach to genre...[the] hope [is] to prepare them to navigate their own way through unfamiliar texts in the future.

—Heather Latimer (2003). *Thinking through genre: units of study in reading and writing workshops 4-12*. Portland, ME: Stenhouse

How Genre Schemas Develop

- Through an inductive process, students use details to generate an overarching statement that they believe to be true of (that element of) the genre.
- Students explore several texts while testing their generalizations for their “predictive explanatory power” and “universal validity” across texts.

