Teaching Students to Read Complex Text

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Standards shift attention towards text and away from skills

- Since 2010, the state of Ohio embraced the idea of teaching students to read “complex text”
- It set levels of text that students are to learn to read in grades 2-12)
- This is in stark contrast to past standards that emphasized the learning of reading skills alone without attention to text
Reasons for the shift to an emphasis on text complexity

- Studies showing that students can’t read the required texts when they leave high school (Achieve, 2015; Military Officers Association of America, 2018; Nale, et al., 1998; Williamson, 2006; Workforce Readiness Project, 2006)
- Schools teach kids with below grade level texts (Shanahan, 2013; Griffith & Duffett, 2018)
Reasons for the shift to an emphasis on text complexity (cont.)

• Skills performances do not reveal how well students can read, but text performances do.

• Studies show that reading tests measure how well students can comprehend text passages—not how well they can answer particular types of questions (skills) (ACT, 2006; Davis, 1944; Muijselaar, et al., 2017; Spearritt, 1972; Thorndike, 1972).
No performance differences due to question types (skills)

Figure 10: Performance on the ACT Reading Test by Comprehension Level (Averaged across Seven Forms)
No performance differences due to question types (cont.)

Figure 11: Performance on the ACT Reading Test by Textual Element
(Averaged across Seven Forms)
Text differences affect reading performance

Figure 12: Performance on the ACT Reading Test by Degree of Text Complexity (Averaged across Seven Forms)
Reconceptualization of reading

- Reading comprehension is not the ability to answer certain kinds of text questions.
- Reading is the ability to make sense of ideas expressed in text—the ability to negotiate the linguistic and conceptual barriers or affordances of a text.
Results of complex texts mandates

- RAND conducted nationwide survey of elementary and secondary teachers in 2016
- 77% of elementary teachers thought that teaching students with texts at their reading levels was aligned with the standards
- 45% of secondary teachers believed this
- Only about one-third of elementary teachers and ½ secondary teachers thought that they should assign a grade level text for a class to read
- Teachers who knew the standards were less likely to use leveled readers to teach reading
Thomas Fordham Foundation conducted national survey of teachers in 2018 and found that teachers were less likely to have students read grade level texts for reading than was true in 2010 when they previously surveyed. What these studies tell us is that teachers often lack understanding of their state’s educational standards and that students are less likely to be taught to read complex texts than before so many states mandated it.
Four Common Classroom Responses to Text Complexity

- Move students to easier text
- Read text to students (communicates the information, but doesn’t increase student reading ability)
- Tell students what texts say (same as reading to kids in its impact)
- Ignore the problem (more drawbacks than the previous approaches)
Teaching students with easier text

- Theory has been that students learn best when taught with relatively easy text (Betts, 1946)
- Independent (fluency 99-100%; comprehension 90-100%)
- Instructional (fluency 95-98%; comprehension 75-89%)
- Frustration (fluency 0-92%; comprehension 0-50%)
Matching texts to student levels doesn’t improve achievement

- Killgallon (1942): only looked at relationship of oral reading fluency and reading comprehension—not learning
- Powell (1968): same methodology as Killgallon, but more grade levels and different results
- Dunkeld (1981): students taught at frustration level made greatest learning gains
- Jorgensen, et al. (1977): no relation between placement and achievement gains
Matching texts to student levels doesn’t improve achievement

- Morgan, et al. (2000): frustration level placements led to greater learning gains
- Brown et al. (2017): replicates this result with third grade
- O’Connor et al (2002, 2010): only benefit was for students reading at grade 1 level, but this benefit went away if scaffolding was equated
- Kuhn et al (2006): frustration level placement led to greater learning gains
- Homan, et al., (2010): teaching 6th graders with instructional level text gave no advantage over teaching with text one year above instructional level
Learning from complex text

- Having students reading challenging text with accountability increases opportunity to learn
- But students—if they are to be successful with this—require scaffolding, guidance, and teaching
- A basic idea of instructional level teaching is to minimize teaching
- The basic idea of teaching with complex text is to maximize achievement
Scaffolding an Instructional Level

Bonfiglio, Daly, Persampieri, & Andersen, 2006
Burns, 2007
Burns, Dean, & Foley, 2004
Carney, Anderson, Blackburn, & Blessings, 1984
Daly & Martens, 1994
Eckert, Ardoin, Daisey, & Scarola, 2000
Faulkner & Levy, 1999
Gickling & Armstrong, 1978
Hall, Sabey, & McClellan, 2005
Levy, Nicholls, & Kohen, 1993
McComas, Wacker, & Cooper, 1996
Neill, 1979
Scaffolding an Instructional Level

O’Shea, Sindelar, & O’Shea, 1985
Pany & McCoy, 1988
Rasinski, 1990
Reitsma, 1988
Rose & Beattie, 1986
Sanford & Horner, 2013
Sindelar, Monda, & O’Shea, 1990
Smith, 1979
Stoddard, Valcante, Sindelar, O’Shea, et al., 1993
Taylor, Wade, & Yekovich, 1985
Turpie & Paratore, 1995
VanWagenen, Williams, & McLaughlin, 1994
Weinstein & Cooke, 1992
Wixson, 1986
Scaffolding Challenging Text

Scaffolding Text Features
- Complexity of ideas/content
- Match of text and reader prior knowledge
- Complexity of vocabulary
- Complexity of syntax
- Complexity of coherence
- Familiarity of genre demands
- Complexity of text organization
- Subtlety of author’s tone
- Sophistication of literary devices or data-presentation devices

Other Approaches
- Provide sufficient fluency
- Use stair-steps or apprentice texts
- Teach comprehension strategies
- Motivation
Tell Vocabulary

• Texts can be hard because of unfamiliar vocabulary (difference between academic vocabulary and key vocabulary in a text)
• We teach vocabulary, but there are two major issues in vocabulary teaching: (1) building a lexicon; (2) enabling immediate understanding of text
• We need to identify relatively high frequency (usefulness) words that kids won’t learn on their own from oral language to build lexicon (no matter what their immediate impact)
• We need to identify words that students are not likely to know or that can’t be figured out easily that have high impact on reading comprehension (no matter their importance).
Which words do you teach?

Photosynthesis may sound like a big word, but it's actually pretty simple. You can divide it into two parts: "Photo" is the Greek word for "Light," and "synthesis," is the Greek word for "putting together," which explains what photosynthesis is. It is using light to put things together. You may have noticed that all animals and humans eat food, but plants don't eat anything. Photosynthesis is how plants eat. They use this process to make their own food. Since they don't have to move around to find food, plants stay in one place, since they can make their food anywhere as long as they have three things.
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Which words would you teach?

Some scientists argued that these gases have heated up our atmosphere. They say global warming will affect our climate so dramatically that glaciers will melt and sea levels will rise. In addition, it is not just our atmosphere that can be polluted. Oil from spills often seeps into the ocean.
Which words would you teach?

I can never forget the scene that met us. Between us and the Barrier was a lane of some fifty yards wide, a seething cauldron. Bergs were calving off as we watched: and capsizing: and hitting other bergs, splitting into two and falling apart. The Killers filled the whole place. Looking downwards into a hole between our berg and the next, a hole not bigger than a small room, we saw at least six whales. They were so crowded that they could only lie so as to get their snouts out of the water and my memory is that their snouts were bottle-nosed. At this moment our berg split into two parts and we hastily retreated to the lower and safer floes.
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Comprehending Sentences

• Reading requires more than an ability to make sense of word meanings
• Comprehension also depends on one’s ability to make sense of syntax, too
“However, on August 24, 2006, the International Astronomical Union (IAU), a group of individual astronomers and astronomical societies from around the world, made an announcement.”
Sentence example

• However,
• on August 24 2006
• the International Astronomical Union (IAU), a group of individual astronomers and astronomical societies from around the world
• made
• an announcement
Sentence example

Who was the sentence about?
the International Astronomical Union (IAU)

Who are they?
a group of individual astronomers and astronomical societies from around the world

What did they do?
made

Made what?
an announcement

When?
on August 24 2006
Another example

“I am from the rusty little tin roof house, from washing by hand and line drying.”

-NY Times: Why Kids Can’t Write
Another example

“I am from the rusty little tin roof house, from washing by hand and line drying.”

I am from the rusty little tin roof house, from washing by hand and line drying.”
Another example

“I am from the rusty little tin roof house, from washing by hand and line drying.”

I am from the rusty little tin roof house, from [I am from] washing by hand and [I am from] line drying.”
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What does it mean to be from these things?
Another example

“The women of Montgomery, both young and older, would come in with their fancy holiday dresses that needed adjustments or their Sunday suits and blouses that needed just a touch—a flower or some velvet trimming or something to make the ladies look festive.”

--Nikki Giovanni (Rosa)
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“The women of Montgomery would come in with their fancy holiday dresses that needed adjustments

or their Sunday suits and blouses that needed just a touch

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or some velvet trimming

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Another example

“While filling out my certificate, Baba realized that he didn’t know my sex for sure but that didn’t matter; he’d always known I was a boy, had spoken to me as a boy while I was in Mama, and as he approached the box that contained the question, NAME OF CHILD, he wrote with a quivering hand and in his best English cursive, Nidal (strife; struggle).”
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Third, make sure I know the subject of each verb…

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Third, make sure I know the subject of each verb…

“While [Baba was] filling out my certificate, Baba realized that he [Baba] didn’t know my sex for sure but that [Baba’s not knowing my sex for sure] didn’t matter; he’d [Baba’d] always known I was a boy, [Baba] had spoken to me as a boy while I was in Mama, and as he [Baba] approached the box that contained the question, NAME OF CHILD, he [Baba] wrote with a quivering hand and in his best English cursive, Nidal (strife; struggle).”
Identify challenging sentences?

- Particularly long sentences
- Internal punctuation
- Dependent clauses
- Multiple phrases
- Parentheticals
- Passive voice
- Etc.

- Write a question for the sentences
- Break the sentences down (punctuation, conjunctions, demonstrative pronouns, prepositions, etc.)
Help with Cohesion

• Texts can be hard because the relationships and connections may be unclear to readers
• *The killer whale tosses the penguin into the air and generally torments its prey before it eats it*
• *The killer whale tosses the penguin into the air and generally torments the penguin before eating it.*
Meanwhile, the nebula continued to orbit the new Sun until it formed a large flat ring around it. Scientists call this ring a “protoplanetary disk.” The disk, or ring, was hottest where it was closest to the Sun, and coolest at its outer edge. As the disk swirled around the Sun, the Sun’s gravity went to work. It pulled and tugged at the bits of rock, dust, ice, and gas until they came together in clumps of material we now call the planets.
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Another cohesion example

• There were several roads near by, but it did not take her long to find the one paved with yellow bricks.
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Another cohesion example

“Surely,” said John, like one who had lost faith in his memory, “he used not to sleep in the kennel?” “John,” Wendy said falteringly, “perhaps we don’t remember the old life as well as we thought we did.”
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“Surely,” said John, like one who had lost faith in his memory, “he used not to sleep in the kennel?”

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‘I didn’t know that Cheshire cats always grinned; in fact, I didn’t know that cats could grin.’

‘They all can,’ said the Duchess; ‘and most of ‘em do.’

‘I don’t know of any that do,’ Alice said very politely, feeling quite pleased to have got into a conversation.
Another cohesion example

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Guidelines for cohesion scaffolding

• Identify the repetitions, synonyms, pronouns (mark the text to show the connections)
• Identify the conjunctions (and, moreover, however, but, consequently, etc.)
• Identify antithesis
Text Structure

• Authors organize their ideas
• Some structures are used by many authors
• Widely used structures:
  - Description/enumeration
  - Sequence/chronological order
  - Comparison/contrast
  - Problem/solution
  - Cause/effect
  - Argument
Text Structure (cont.)

- Readers use the authors structure to guide their understanding and recall
- If the reader is able to recognize the organizational plan, then this can be used to remember the text
- If the reader does not recognize a common organizational plan, it helps to impose one
- This often can be done by briefly identifying the main point of each paragraph or section
“The horseless carriage was just arriving in San Francisco, and its debut was turning into one of those colorfully unmitigated disasters that bring misery to everyone but historians. Consumers were staying away from the “devilish contraptions” in droves. In San Francisco in 1903, the horse and buggy was not going the way of the horse and buggy.”
“The horseless carriage was just arriving in San Francisco, and its debut was turning into one of those colorfully unmitigated disasters that bring misery to everyone but historians. Consumers were staying away from the “devilish contraptions” in droves. In San Francisco in 1903, the horse and buggy was not going the way of the horse and buggy.”
The “horseless carriage” was unpopular in San Francisco.
For good reason. The automobile, so sleekly efficient on paper, was in practice a civic menace, belching out exhaust, kicking up storms of dust, becoming hopelessly mired in the most innocuous-looking puddles, and tying up horse traffic. Incensed local lawmakers responded with monuments to legislative creativity. The laws of at least one town required automobile drivers to stop, get out, and fire off Roman candles every time horse-drawn vehicles came into view. Massachusetts tried and, fortunately, failed to mandate that cars be equipped with bells that would ring with each revolution of the wheels. In some towns police were authorized to disable passing cars with ropes, chains, and wires. San Francisco didn’t escape the legislative wave. Bitter local officials pushed through an ordinance banning automobiles from all tourist areas, effectively exiling them from the city.
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Laws across the country were passed against horseless carriages.
Nor were these the only obstacles. The asking price for the cheapest automobile amounted to twice the $500 annual salary of the average citizen—some cost three times that much—and all that bought you was four wheels, a body, and an engine. “Accessories” like bumpers, carburetors, and headlights had to be purchased separately. Navigation was a nightmare. The first of San Francisco’s road signs were only just being erected, hammered up by an enterprising insurance underwriter who hoped to win clients by posting directions into the countryside, where drivers retreated for automobile “picnic parties” held out of the view of angry townsfolk.
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Horseless carriages were expensive.
The first automobiles imported to San Francisco had so little power that they rarely made it up the hills. The grade of Nineteenth Avenue was so daunting for the engines of the day that watching automobiles straining for the top to become a local pastime.
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Horseless carriages were not powerful enough to climb San Francisco’s hills.
The “horseless carriage” was unpopular in San Francisco.
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This is an explanation or an argument of why cars were not immediately popular in San Francisco—it gives three reasons (paragraphs 2-4).

But I don’t think I summarized the second paragraph correctly.

More correctly: Autos were menacing and disruptive (to such an extent that laws were passed to limit the auto).
Resources


Build Text Reading Fluency

- Texts can be hard because they demand more advanced reading skills than the students have.
- Students need practice reading (orally) with accuracy, appropriate speed, and prosody.
- Not round-robin reading (use these instead: repeated reading, echo reading, paired reading, reading while listening, etc.).
- Putting fluency first might make sense.
- Parsing texts can be helpful.
A Walk in the Desert

Sunbeams are flickering over the landscaper as the sun rises. A kit fox heads for her den as another day in the desert begins.

Deserts are surrounded by other kinds of landscapes. Scientists call these different land zones biomes. All the plants and animals in a biome form a community. In that community, every living thing depends on other community members for its survival. A biome’s climate, soil, plants, and animals are all connected this way.
A Walk in the Desert

Sunbeams are flickering over the landscape as the sun rises. A kit fox heads for her den as another day in the desert begins.

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Provide Stair-step Texts

- Texts can be hard because students lack sufficient background knowledge
- If students have multiple texts on the same topic that are at different difficulty levels,
  - easier “apprentice” texts can help students build background knowledge for the more difficult ones.
  - The overlap in important information should increase the likelihood that students will pay attention to it.
  - Should increase a student’s ability to independently deal with the information in the hard text
Repetition

- One of the most powerful scaffolds is also one of the most obvious—reading a text more than once makes it more accessible.
- In the past, we tended to have students read a text a single time, but as the text challenge increases it is essential that we encourage students to read texts (and parts of texts) more than once to make sense of it.
- This is an effective strategy, but it is expensive too (the idea is to become successful with these texts—which should make it possible to succeed with other texts later with less work).
- Explain this to students.
Comprehension strategies

- Research shows that when students are active readers—that is, when they are actively trying to understand a text—they comprehend and remember more.
- Comprehension strategies are a proven way to get students to think about the ideas in a text.
- Summarization, questioning, monitoring, seeking particular kinds of information have all been found to stimulate learning.
Motivation

- The instructional level is based on the idea that students seek easy work— that if the work is challenging they will stop trying.
- But research shows that students seek challenge and are motivated by it.
- Challenge only works if it is not overwhelming and if students see the possibility of getting better/stronger, et.
- Don’t make challenging text a secret—tell kids what is happening and show them how you will make them effective.
- Research also shows that students are interested in more challenging content (and on their own, they’ll fight through more challenging text to get to this content)—using challenging text opens up content possibilities.
The physical fitness metaphor

• If reading and physical exercise are similar, then text complexity is akin to weight or distance

• Students need to practice reading with multiple levels of difficulty and for varied amounts (these variations can even occur within a single exercise session)

• Guiding students to read text with support is like spotting for someone during weight lifting (you have to be careful not to do the exercise for them and you have to avoid dependence)

• Do not always head off the challenges, but always be ready to respond and support
# 16-Week Marathon Training Schedule

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Conclusions

• I can’t learn from a text that I can’t figure out.
• But I can learn from one that I may not understand but that I can make sense of
• Persistence depends upon my awareness that I can successfully take control in such situations
• A steady diet of instructional level text restricts/limits the text barriers that I can gain experience with
• But providing students complex text alone – without scaffolding, guidance, and teaching – will provide opportunity without ensuring learning
• Make students powerful, teach them to read complex texts