



The Science of Reading in High School: Maximizing Student Success through Sentence Comprehension

Introduction

In [*The Science of Reading in High School: Maximizing Student Success through Morphology Instruction*](#), we explored how skilled reading depends on both word recognition and language comprehension, and how morphology can help students decode unfamiliar words while building vocabulary and meaning.

But understanding individual words is only part of reading comprehension. Students must also understand how words and ideas work together within sentences.

Scarborough's Reading Rope identifies language structures, including syntax, as one of the strands that contributes to language comprehension and, ultimately, skilled reading (Scarborough, 2001).

This article moves from words to sentences, taking a closer look at syntax and sentence comprehension. It explores some of the features that can make sentences difficult to understand and provides practical strategies secondary educators can use to help students make meaning from increasingly complex texts across subject areas.

Reflect:

Think about a student who reads aloud accurately but struggles to explain what they have read or answer comprehension questions about a textbook passage.

Could difficulty understanding how words and ideas fit together within sentences be part of the challenge?

Focus on Language Structures: Sentence Comprehension

"Before the words slide into their slots, they are just discrete items... Once the words are nested in their places, they are tied by ligatures of relationships to one another."

Fish, Stanley. *How to Write a Sentence: And How to Read One*. Harper, 2011.

Secondary teachers do not need to become experts in grammar or linguistics. Rather, a foundational understanding of syntax can help them recognize when sentence structure may be interfering with students' comprehension of course-related texts. Across subject areas, teachers routinely ask students to read, interpret, and learn from many different types of text, including textbooks, novels, news articles, lab procedures, word problems, historical accounts, case studies, recipes, safety guidelines, workplace manuals, and government documents.

By recognizing common sentence-level barriers within these texts and providing brief, targeted support, teachers can make complex texts more accessible for **all learners**, particularly students with learning disabilities and other language comprehension challenges.

SYNTAX: The structure used to order and organize ideas within a sentence, including the arrangement of words, phrases, and clauses. Understanding how these elements work together helps readers construct meaning.

SYNTACTIC AWARENESS: The ability to reflect on and work with the grammatical structure of language (Cain, 2007).

What the Research Tells Us

Research has shown a relationship between knowledge of sentence structure and reading comprehension. As texts become more complex, students must do more than recognize individual words; they must understand how words, phrases, and ideas are connected within and across sentences. Developing sentence-level comprehension can therefore play an important role in helping students make meaning from more complex texts.

- Students who know more about sentence construction tend to do better on measures of reading comprehension (Brimo et al., 2017).
- Knowledge of syntax helps students to clarify meaning within and between

sentences (Scott, 2004).

- Skilled readers draw on cohesive devices and connectives to understand relationships between ideas (Halliday & Hasan, 1976).
- Language structures, including syntax, contribute to skilled reading comprehension (Scarborough, 2001).
- Sentence-level comprehension helps bridge the gap between recognizing individual words and constructing meaning from connected text (Hennessy, 2021).

Reflect:

Consider the types of texts you present to your students.

How often do you pause to unpack a challenging sentence before expecting students to answer questions, solve problems, or apply new learning?

What Is a Sentence?

A sentence is defined as “a group of words, usually containing a verb, that expresses a thought in the form of a statement, question, instruction, or exclamation and starts with a capital letter when written” (Cambridge Dictionary, n.d.).

“The sentence lies at the heart of communicating thought and meaning whether you are the writer or the reader. Syntax allows for the creation of an infinite number of sentences that serve as the ‘worker bees of text.’”

Scott (2004, p. 340)

Sentences can be organized in different ways, with some expressing a single idea and others connecting multiple ideas through compound, complex, or compound-complex structures.

Sentence Types		
Sentence Type	Meaning	Example
Simple sentence	An independent clause that conveys one idea.	The teacher was running late.
Compound sentence	Two independent clauses that are related and joined together.	The teacher was running late, but she still stopped for a coffee.
Complex sentence	One independent clause and at least one dependent clause.	Although the teacher was running late, she still stopped for a coffee.
Compound-complex sentence	At least two independent clauses and one or more dependent clauses.	Although the teacher was running late, she still stopped for a coffee, and she arrived before the students.

What Makes Sentences Difficult to understand?

Even when students can read the individual words in a sentence, certain sentence features can make it difficult to construct meaning. Recognizing these features can help teachers anticipate where students may need additional support.

This article focuses on four common sentence-level challenges:

- sentence length
- sentence density
- dependency within sentences
- word order

The next section introduces a simple process for unpacking challenging sentences, followed by a closer look at each of these four challenges.

A Simple Process for Unpacking Challenging Sentences

When students encounter a challenging sentence, teachers can use a simple five-step process to make its structure and meaning more visible. For students with learning disabilities and others who benefit from more explicit support, making these steps visible can help them understand not only what a sentence means, but how to approach similar sentences independently.

1. **Identify the sentence core.**

Who or what is the sentence about? What is happening? What is the main idea?

2. **Identify the barrier.**

What features are interfering with comprehension?

- Too many ideas packed into one sentence
- Punctuation
- Vocabulary
- Connecting words
- Unclear pronouns or referents

3. **Clarify: Explicitly teach how to address the challenging features.**

Break the sentence into meaningful chunks

Explicitly teach or explain the features that are causing confusion.

4. **Connect the pieces.**

Show students how the additional information, ideas, or relationships connect to the core meaning.

5. **Reconstruct the meaning.**

With the students, reread the complete sentence and explain or restate its meaning.

The same process can be applied across the four sentence-level challenges introduced above. In the worked examples that follow, the barrier has already been identified, allowing the focus to remain on how teachers can unpack each sentence with students.

Sentence Length

Long sentences can place significant demands on comprehension, particularly when students must hold several pieces of information in mind while identifying the sentence's main idea.

- Longer sentences place greater demands on working memory.

- They require students to hold multiple pieces of information in mind while constructing meaning.
- They can make the main idea of the sentence harder to identify.

TEACHER TIPS

- When students struggle with a long sentence, help them identify the sentence's main idea first - *who* or *what* the sentence is about and *what* is happening.
- Next, revisit the remaining details in the sentence one meaningful **chunk** at a time. Discuss how each additional detail contributes to the overall meaning.
- Clarify unfamiliar pronouns and referents. Teach students to read around the word or phrase to determine what it represents.

Worked Example: Sentence Length

Example sentence:

A spirited discussion springs up between a young girl who insists that women have outgrown the jumping-on-a-chair-at-the-sight-of-a-mouse era and a colonel who says that they haven't.

The Dinner Party by Mona Gardner (1942)

Unpacking the Sentence

1. Identify the sentence core.

Ask: Who or what is it about? What is happening?

A discussion springs up between a young girl and a colonel.

2. Clarify the challenging features.

Draw students' attention to the features that may interfere with comprehension:

- **Additional ideas and connecting words:** Explain that *who* introduces information about each person, the young girl and the colonel. Clarify that the phrase "*who insists that women have outgrown the jumping-on-a-chair-at-the-sight-of-a-mouse era*" explains the young girl's position. Clarify that "*who says that they haven't*" introduces the colonel's opposing viewpoint.
- **Unclear pronoun/referent:** Determine who "*they*" refers to. "*They*" refers to women. Clarify that "*they haven't*" refers to the colonel's belief that women have not outgrown the "jumping-on-a-chair-at-the-sight-of-a-mouse era."

3. Connect the pieces.

- The additional pieces of information tell more about the *discussion between a young girl and a colonel*.
- The two characters have opposing viewpoints.
- The young girl believes that women have outgrown the "jumping-on-a-chair-at-the-sight-of-a-mouse era."
- The colonel believes that women have not outgrown that era.

4. Reconstruct the meaning.

With the students, reread the complete sentence.

Ask: *What are the young girl and the colonel discussing, and how do their opinions differ?*

Sentence Density

Dense sentences can be challenging because they require readers to process a large amount of information at once.

- They may present many ideas, concepts, relationships, or pieces of information within relatively few words.
- They may require students to have knowledge of technical and academic vocabulary.
- Students must process several ideas at the same time, increasing the cognitive demands of comprehension.

TEACHER TIPS

- Students may become overwhelmed by or skip over dense sentences. Help students develop the skills needed to unpack them.
- Be aware that dense sentences may require extra attention to:
 - punctuation
 - vocabulary
- Punctuation that may cause confusion includes dashes, colons, commas, and semicolons.
- Explicitly teach the meaning of unknown vocabulary. Draw on students' morphological knowledge whenever possible.
- When clarifying unknown referents and pronouns, teach students to **read around** the pronoun or referent to determine what it represents. This may require backing up a sentence or two.

Worked Example: Sentence Density

Example sentence:

The other is a mustard-oil compound—allyl isothiocyanate—the ingredient that gives mustard and wasabi (similar to horseradish) its pungent kick.

Education Quality and Accountability Office. Ontario Secondary School Literacy Test: Released Questions and Writing Tasks, 2018–2019. Education Quality and Accountability Office, 2019, Section III, "Mustard Oil Versus Malaria."

Unpacking the Sentence

1. Identify the sentence core.

Ask: Who or what is it about? What is happening?

The other is a mustard-oil compound.

2. Clarify the challenging features. Draw students' attention to the features that may interfere with comprehension:

- **Additional ideas and connecting words:**

The sentence names the compound and explains what it does

- The *compound* is called allyl isothiocyanate. Allyl isothiocyanate provides additional information about the mustard-oil compound.
- This *compound* gives mustard and wasabi their pungent kick. (what it does)

- **Punctuation**

The sentence uses dashes and parentheses to provide additional information

- The dashes introduce information that tells us more about the compound. The scientific name of the compound is embedded between the dashes.
- The parentheses contain an explanation. (*Similar to horseradish*) helps the reader understand the meaning of *wasabi*.

- **Vocabulary**

Explicitly teach the meaning of any unknown words using accessible language. Where appropriate, have students draw on their morphological knowledge to determine the meaning.

- **Unclear pronoun or referent:**

Teach students to **read around** an unknown referent to determine what it represents. This might mean backing up to a previous sentence.

- Ask: What does “the other” refer to?
- Students must refer back to the previous sentence to identify what “the other” represents.

3. Connect the pieces

- The additional information provides details about the mustard-oil compound.
- *The other* refers to information introduced in the previous sentence
- *The other* is the mustard-oil compound
- Allyl isothiocyanate is the name of the compound
- Allyl isothiocyanate gives mustard and wasabi their *pungent kick*

4. Reconstruct the meaning

With the students, reread the complete sentence.

Ask: *What is the mustard-oil compound? What does the compound do?*

Dependency Within Sentences

Some sentences require readers to keep track of relationships between ideas, events, and people in order to construct meaning.

- Students must understand the relationship between ideas.
- This requires knowledge of connecting words that signal relationships between ideas (e.g., but, because, although, since, which, and while). These relationships may include comparison and contrast, cause and effect, or time and sequence.
- Pronouns and other referring words (e.g., he, she, it, they, this, these, which) require students to connect them to the correct word or idea in the sentence or in a previous sentence. Comprehension may be disrupted when students lose track of these references.

TEACHER TIPS

- Regularly draw students' attention to **connecting words** and **referring words**. This can take only a minute or two!
- Consider posting a **reference chart** of common connecting words and the relationships they signal (e.g., comparison and contrast, cause and effect, time and sequence, description).
- Consider posting a list of common pronouns and other referring words (e.g., he, she, it, they, this, these, which) to remind students to identify what or whom they refer to.

Worked Example: Dependency Within Sentences

Example:

He is speaking in 1960, after Canada has participated in two world wars as an independent country, but still before all Indigenous Peoples in Canada would gain and have the chance to exercise their voting rights.

CHC2P, TVO Learn <https://tvolearn.com/products/chc2p-canadian-history-since-world-war-i>

Unpacking the Sentence

1. Identify the sentence core.

Ask: Who or what is it about? What is happening?

He is speaking in 1960.

2. Clarify the challenging features.

Draw students' attention to the features that may interfere with comprehension:

- **Connecting words:**

After and *but still before* signal relationships between events and ideas.

Identify the signals.

- after = time/sequence
- but = contrast
- still before = time/sequence
- but still before = contrast within a time sequence

Clarify the relationship between the connected ideas

After : Canada's participation in the two world wars occurred **before** the speech in 1960.

But still before: The speech occurred before all Indigenous Peoples in Canada had gained and had the opportunity to exercise their voting rights.

- **Unclear pronoun or referent:**

Teach students to **read around** an unknown referent to determine what it represents. This might mean backing up to a previous sentence or looking at the surrounding context.

- Ask: Who does “*he*” refer to?
- Students may need to refer back to the preceding text to identify who is speaking.

3. Connect the pieces

- He is giving the speech in 1960.
- The speech occurs after the two world wars.
- Not all Indigenous Peoples in Canada had yet gained and had the opportunity to exercise the voting rights described in the sentence at the time of the speech.

4. Reconstruct the meaning

With the students, reread the complete sentence.

Ask: *What events are being compared in time? What contrast is found in the sentence?*

Word Order

Word order can make sentences harder to follow when additional information separates words or ideas that belong together.

- Extra information can separate the subject from the main verb, making it more difficult to determine who or what is doing the action and what the action is.
- Understanding the sentence may require students to identify the subject and main verb, or sentence core.

TEACHER TIPS

- When students struggle with word order, support them in identifying the sentence core. Sometimes the sentence core is interrupted by additional information.
- Underline or highlight the sentence core to draw students’ attention to the subject and main verb. This makes it easier for students to see how the additional information relates to the main idea.

- Teach students that commas can sometimes signal additional information that interrupts the main part of the sentence.

Worked Example: Word Order

Example sentence:

Indigenous architect Douglas Cardinal, who designed the curving, organic shape of the museum, wanted Janvier's art to be a part of it.

Education Quality and Accountability Office. Ontario Secondary School Literacy Test: Released Assessment, 2014–2015. Education Quality and Accountability Office, 2015. "Morning Star."

Unpacking the Sentence

1. Identify the sentence core.

Ask: Who or what is the sentence about? What is happening?

Indigenous architect Douglas Cardinal wanted Janvier's art to be a part of it.

2. Clarify the challenging features.

Draw students' attention to the features that may interfere with comprehension:

- **Additional ideas:**

The sentence core is interrupted by additional information

- **Find the subject.**

Who or what is the sentence about?

Indigenous architect Douglas Cardinal

- **Find the main verb.**

What did Douglas Cardinal do?

wanted

- **Highlight the sentence core to visually separate it from the additional information.**

Indigenous architect Douglas Cardinal wanted Janvier's art to be a part of it.

- **Identify the additional information between the commas.**

who designed the curving, organic shape of the museum

- **Punctuation:**

- Explain that the commas set apart additional descriptive information about Douglas Cardinal.

- **Unclear pronouns or referents:**

- *Who* refers to Douglas Cardinal.
- *Who* connects the additional description to Douglas Cardinal.
- *It* refers to the museum.

3. Connect the pieces

- Douglas Cardinal wanted Janvier's art to be a part of the museum.
- The additional information tells us that Douglas Cardinal designed the curving, organic shape of the museum.

4. Reconstruct the meaning

With the students, reread the complete sentence.

Ask: Who wanted Janvier's art to be part of the museum? What additional information does the sentence provide about this person?

Practice

Now that you have seen how sentence length, density, dependency, and word order can affect comprehension, try identifying these features in other subject-area texts. A sentence may present more than one barrier.

Review the following sentences. Identify the features that might make each sentence challenging, then consider how you could use the process for unpacking challenging sentences with your students.

Course	Sentence	Challenge(s)
MBF3C (Grade 11 Foundations for College Mathematics)	The scale in magnification drawings (where the drawing is larger than the object) is written in the form $n:1$, where n represents the size of the magnification, or the number by which all dimensions in the real-life object must be multiplied.	☐ Length ☐ Density ☐ Dependency ☐ Word Order
SNC1W (Grade 9 Science - Destreamed)	Organisms that photosynthesize produce energy-rich compounds using light energy.	☐ Length ☐ Density ☐ Dependency ☐ Word Order

As you review each sentence, consider: What might make the sentence difficult for a student to understand? What would you make explicit before asking the student to use the information?

Start Small: Select One or Two Sentences

Teachers can become more aware of sentence-level features within their instructional texts that may create barriers to student comprehension. Before presenting a text, scan for potential sentence-level challenges and select **one** or **two** sentences to unpack with your students. The guiding questions below can help identify sentences that may require additional support.

Challenge	Ask
Length	Is the sentence long enough that students may have difficulty holding the beginning in mind by the time they reach the end? Is there a lot of information presented before students reach the main point? Does the sentence contain multiple commas, dashes, parentheses, colons, or semicolons?
Density	Does the sentence present many ideas, details, and concepts at once? Are there several technical or unfamiliar words within the sentence?
Dependency	Do students need to connect different ideas within the sentence? Does the sentence contain connecting words (e.g., because, although, while, after, but) that signal the relationship between ideas? Does the sentence contain several pronouns (e.g., he, these, their, which)?
Word Order	Are the words arranged in a way that may make the sentence difficult to follow? Is it difficult to figure out who is doing what? Are words that belong together separated by other information?

Reflect:

Select one text from an upcoming lesson.

Read it through the eyes of a student who may struggle with sentence-level comprehension.

Which one or two sentences might be most difficult for students to understand, and how could you make their meaning more accessible?

Conclusion

For some students, challenges with sentence-level comprehension can significantly limit overall reading comprehension. These challenges can create barriers to accessing course material and demonstrating their learning. It is therefore important for teachers to develop an awareness of sentence features within course texts that may interfere with comprehension. While teachers do not need to become experts in syntax, a few intentional steps before and during instruction can make a meaningful difference, particularly for students with learning disabilities and others who benefit from explicit support.

Teachers are encouraged to start small:

1. Scan upcoming texts before presenting them to students.
2. Select one or two sentences that may pose a challenge.
3. Use the process outlined in this article to explicitly unpack those sentences with students.

Brief moments of explicit instruction focused on sentence-level comprehension can help students develop strategies to approach challenging texts more independently across subject areas and text forms.

By making sentence structure and meaning more visible, educators can help make increasingly complex texts more accessible to students.

About the Author



Anne-Marie Spence (she/her) is currently working as a secondary school Guidance Counsellor with the London District Catholic School Board. For over 20 years, she has helped students of all ages build confidence and skill through effective literacy instruction across the elementary and secondary panels. Her experience spans all divisions (K-12), including in French Immersion, and as a teacher of Special Education.

Anne-Marie's professional journey reflects her deep commitment to literacy and student success. She spent six years with Ontario's Provincial and Demonstration Schools Branch, teaching at Amethyst Demonstration School and later serving as a Central Resource Teacher with a focus on literacy. She has dedicated herself to sharing the importance of evidence-based practices with educators, parents, and students, and has led professional learning across Ontario on the science of reading and structured literacy.

Central to her mission, Anne-Marie is committed to supporting all learners through important educational transitions while equipping them for long-term success. She has a special interest

in fostering practices that align with the science of reading and the science of learning in the high school setting.

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The [Learning Disabilities Association of Ontario \(LDAO\)](#) has been a trusted provincial voice for over 60 years, supporting individuals with learning disabilities and ADHD, as well as their families, educators, and communities. LDAO provides evidence-informed resources, advocates for systemic change, and promotes equity in education and beyond.

LDAO's education-focused initiatives include [LD@school](#) and [TA@l'école](#), which provide free evidence- and practice-informed resources for educators, and [LD@learning](#), which offers paid online courses and professional learning for those supporting learners with learning disabilities and ADHD.

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