



The Comprehension-Composition Connection

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AIM Research Symposium
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*Reading and writing are connected
at the most intimate level. We write
so others will read, and read what
others write.*

Graham, 2020



Reading & Writing

In what ways are they connected...

Construct & communicate ideas.

Depend on a shared knowledge base.

used to construct & communicate Ideas.

Complementary processes that can be used to strengthen each other in reciprocal fashion.

Tools for Learning

*Reading & writing is
transformative... allows for the
transmission of ideas, experiences,
opinions, memories, wishes &
much more...*

Snow, 2020

Understanding the meaning of oral or written communication requires facility with receptive language (e.g., listening and reading).

Demonstrate understanding requires expressive language skills (e.g., speaking and writing).

Language is at the heart
of reading & writing
proficiency.

A Shared Knowledge

....both reading comprehension and written composition are constructs built on a highly similar complex set of component skills...

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.)

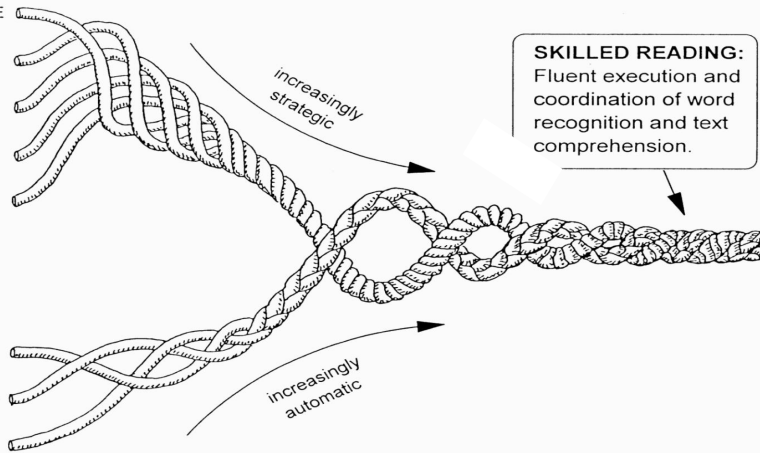
LITERACY KNOWLEDGE
(print concepts, genres, etc.)

WORD RECOGNITION

PHONOLOGICAL AWARENESS
(syllables, phonemes, etc.)

DECODING (alphabetic principle,
spelling-sound correspondences)

SIGHT RECOGNITION
(of familiar words)

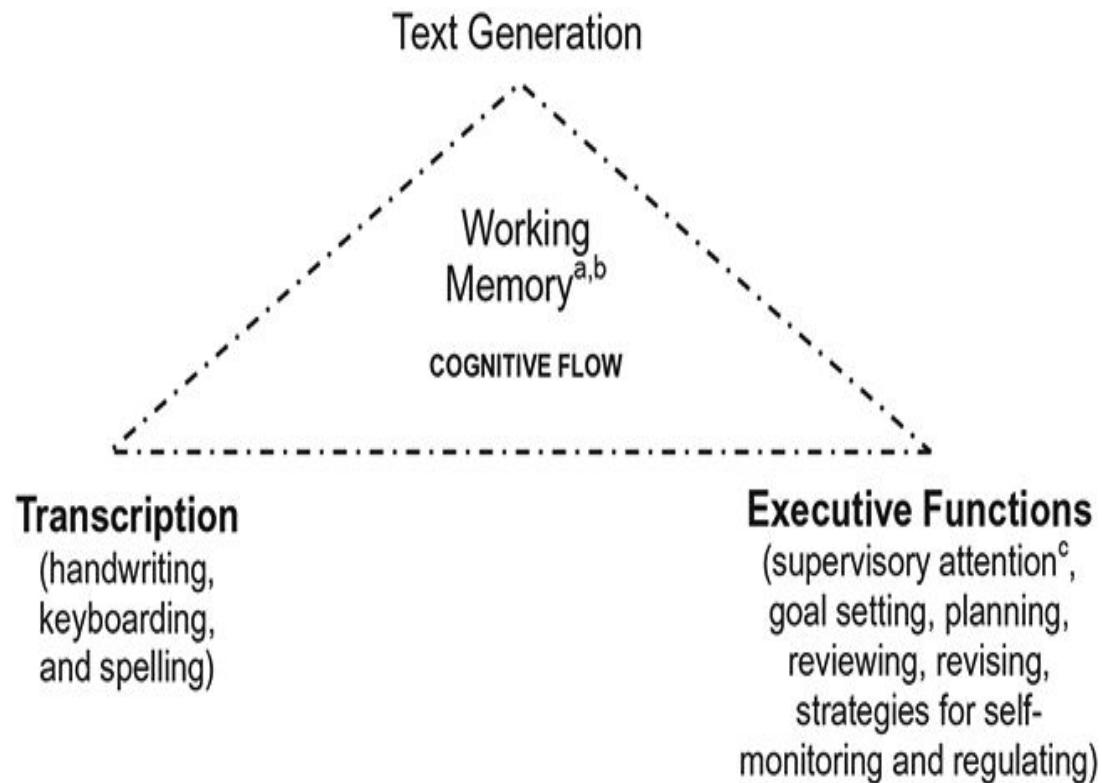


Skilled Reading
The Reading Rope
Scarborough, 2001

*Even if the pronunciations of all of the letter strings in a passage are correctly decoded, the text will not be well comprehended if the child (a) does not know the words in their spoken form; (b) cannot parse the syntactic and semantic relationships among the words; or (c) lacks critical background knowledge or inferential skills to interpret the text appropriately and “read between the lines.” Note that in such instances, “reading comprehension” deficits are essentially **oral language** limitations.*

Not so Simple View Of Writing

Berninger & Winn, 2006



In order to produce coherent written compositions, one needs to carefully coordinate and regulate complex, recursive processes of generating ideas, translating them into oral language, transcribing them into print, and revising and editing written texts. These complex writing processes draw on multiple language and cognitive skills and knowledge in the context of physical and social environments.

Young-Suk & Graham, 2020

Direct & Indirect Effects Model of Writing

Young Suk & Graham, 2022

*...background knowledge; socio-emotions;
spelling and handwriting/keyboarding;
knowledge or awareness of phonology,
orthography, and semantics; oral composition or
discourse oral language; higher order cognitive
skills and regulation skills such as reasoning,
perspective taking, inferencing, goal setting, and
monitoring; vocabulary and grammatical
knowledge; and executive function such as
working memory and attentional control...*

Complementary Processes...

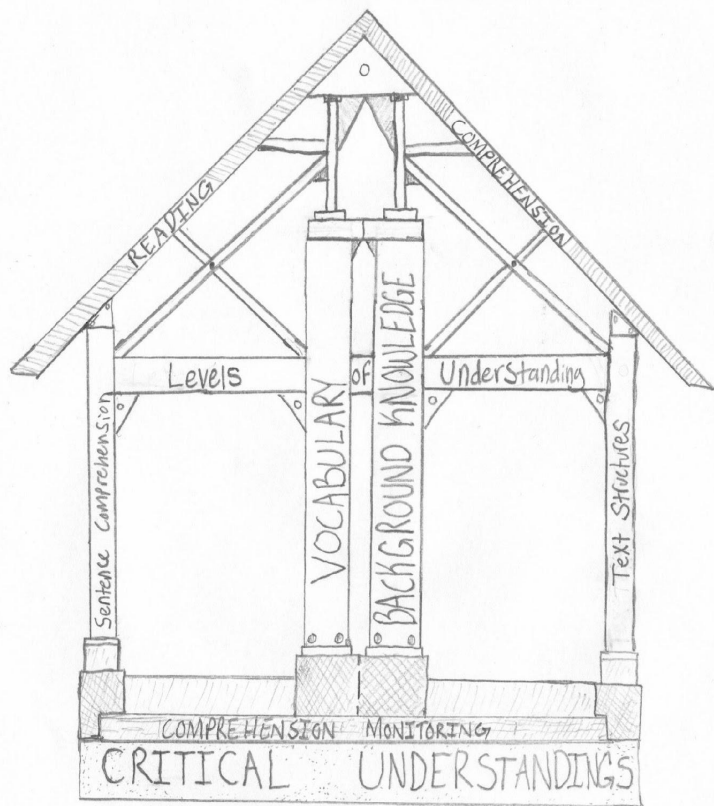
The evidence is clear: writing can be a vehicle for improving reading.

Graham & Hebert, 2010

The Comprehension-Composition Connection

Making It
Explicit

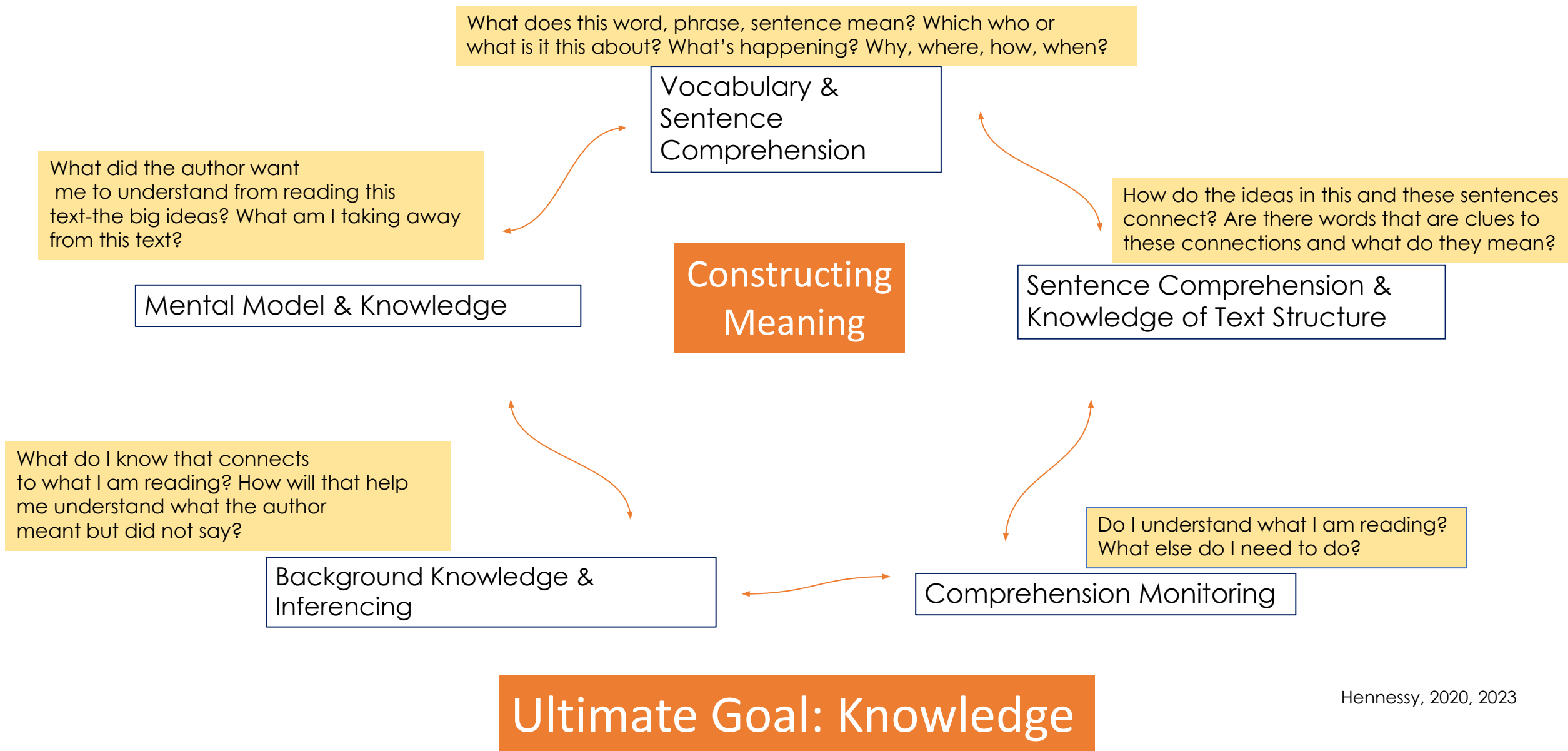
Constructing Comprehension



The Reading Comprehension Blueprint by Mary Lewis Hennessy
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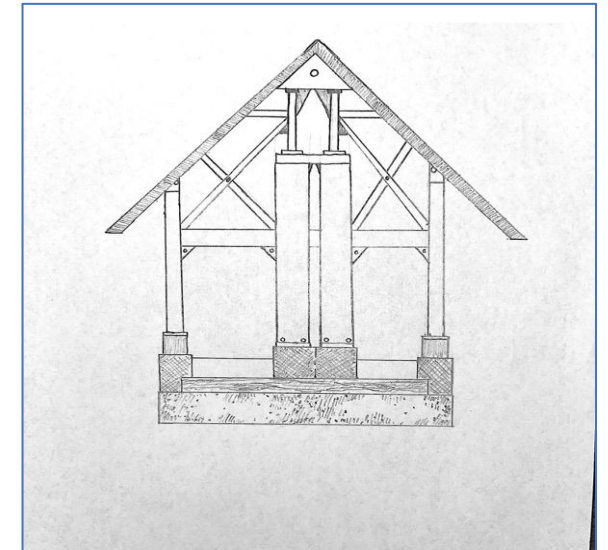
The Blueprint

Blueprint for Comprehension Instruction	
PREPARING FOR INSTRUCTION CRITICAL UNDERSTANDINGS OF TEXT	What do you want students to know and understand about the text? What are the concepts and understandings you want your students to acquire? What skills will you use to assess understanding?
PURPOSE FOR READING TEXT	What are you hoping to achieve with this text? What are the literacy goals of this text? What are the literacy goals of this text?
TEXT READING VOCABULARY	What words will you expect your students to use? What words will you expect your students to use? What words will you expect your students to use?
LANGUAGE STRUCTURES (phrases, clauses, sentence comprehension)	What are the language structures in the text? What are the language structures in the text? What are the language structures in the text?
KNOWLEDGE • Text structure • Background knowledge	What are the knowledge structures in the text? What are the knowledge structures in the text? What are the knowledge structures in the text?
LEVELS OF UNDERSTANDING AND INFERENCE	What are the levels of understanding and inference in the text? What are the levels of understanding and inference in the text? What are the levels of understanding and inference in the text?
EXPRESSION OF UNDERSTANDING	What are the expression of understanding in the text? What are the expression of understanding in the text? What are the expression of understanding in the text?



The Blueprint & Writing Connections

The Reading Comprehension Blueprint		Writing Connections to The Blueprint	
Preparing for instruction	What do you want students to know and understand after reading the text? What are the critical concepts and understandings- big ideas you want your students to acquire?	Preparing for instruction Critical understandings	What are the critical concepts and understandings- big ideas you want your students to be able to plan for & write about to demonstrate understanding?
	What are the content instructional goals and objectives? What are the literacy/comprehension instructional goals and objectives?	Purpose for writing instruction	What are the content/topic instructional goals and objectives? What are the literacy/writing instructional goals and objectives?



The Composing House

What is my purpose? Who am I writing for?
What will I need to do to achieve it?
How will I organize my thoughts?
What text structures will I use to convey purpose?

What did I want my audience to
to understand from reading my
writing -the big ideas?

Planning,
Generating
Organizing

Which words will I choose,
what sentences will best
express my thinking?

Mental Model &
Knowledge

Translating

Composing Meaning

Did I communicate my intended meaning/
Does my writing make sense? Is it coherent/
What do need to change?

Reviewing, Editing Revising

Am I achieving my
goals, purpose?
What else do need
to do?

Monitoring

Write about you are learning about!

*Have students write about the text
they are reading.*

*Have students answer questions
about text in writing or create or
answer written questions about text.*

*Teach the process of writing, text
structures for writing, paragraph, or
sentence construction skills.*

Graham & Hebert, 2010.



SYNOPSIS OF WRITING TO READ: EVIDENCE FOR HOW WRITING CAN IMPROVE READING

A CARNEGIE CORPORATION TIME TO ACT REPORT

INTRODUCTION

In the Writing to Read report, Graham and Hebert examine whether various approaches to writing instruction impact students' reading skills and comprehension. The authors describe a range of instructional practices that have demonstrated a positive effect on reading outcomes. Writing to Read builds upon the findings of a previous report, Writing Next¹, which offered instructional recommendations for improving the quality of students' writing. However, Writing to Read provides guidance on how teachers can use writing instruction to strengthen students' reading performance. Recent achievement data suggest that students need stronger reading and writing instruction. The need for more attention on both skills is evident in the results of the 2009 National Assessment of Educational Progress (NAEP) reading test, which revealed that 68% of fourth-graders, 69% of eighth-graders, and 64% of twelfth-graders scored at the basic level or below in reading. Similarly, 67% of eighth-graders and 76% of high school seniors scored at the basic level or below in writing on the 2007 NAEP writing test.

Students' reading and writing skills are not keeping pace with the growing demands of colleges and employers. This has wide-reaching economic and societal costs that prompted Graham and Hebert (2010) to explore writing instruction as a vehicle for enhancing reading. The authors used a rigorous methodology known as meta-analysis to

summarize data from individual studies addressing common questions about the relationship between writing instruction and reading outcomes. By synthesizing across studies, meta-analysis allows for a more powerful estimation of the consistency and effectiveness of an approach. Such information can help guide classroom teachers in selecting instructional strategies and planning lessons.

This synopsis of Graham and Hebert's meta-analysis presents an overview of their findings and describes implications for practice. Although

Writing to Read is straightforward, its comprehensive nature may limit its use as introductory material for practitioners or professional development events. Therefore, this synopsis is intended to serve as a first step that will encourage further exploration of the Writing to Read document. It is also intended as a companion to the Center on Instruction archived webinar (located at www.centeroninstruction.org) by the Writing to Read author, Dr. Steve Graham.

METHOD & RESULTS

The studies analyzed by Graham and Hebert included students in grades 1–12 who received writing instruction that was distinct from, rather than integrated with, reading instruction. For a study to be included in the meta-analysis, students must have received instruction in written spelling or created meaningful, connected written text. The students in the treatment groups must have been compared to students who did not receive the same amount or quality of writing instruction. For example, students in the comparison condition frequently received reading instruction only. Studies were included if they were published between 1930–2008, used an experimental or quasi-experimental design, and contained a reliable outcome measure of reading comprehension, word reading, or reading fluency. Studies were excluded if the writing instruction was identical to the reading outcome measure, such as when students were taught to write summaries of text and then were administered a reading comprehension test in which they produced a written summary of a text. Studies were also eliminated if the data needed to calculate an effect size² were not available. In all, the authors reported 93 comparisons from studies meeting the criteria.

Each identified study was then categorized based on the research question it answered. Some categories were further separated into instructional subcategories. Within the three broad recommendations and seven more specific subtypes of writing instruction, studies were combined to produce a weighted average effect for each. The example study provided in each category or subcategory is a

continued >

² An effect size is a measure of the strength of the relationship of an intervention to an outcome. It is calculated by dividing the difference between the intervention group and the control group by the standard deviation of the outcome. For example, if the mean score for the intervention group is 80 and the mean score for the control group is 70, and the standard deviation is 10, the effect size is 1.0. Effect sizes of 0.2, 0.5, and 0.8 are considered small, medium, and large, respectively. The more difficult it is to find an effect, the smaller the effect size. The effect size is a measure of the strength of the relationship between the intervention and the outcome. It is calculated by dividing the difference between the intervention group and the control group by the standard deviation of the outcome. For example, if the mean score for the intervention group is 80 and the mean score for the control group is 70, and the standard deviation is 10, the effect size is 1.0. Effect sizes of 0.2, 0.5, and 0.8 are considered small, medium, and large, respectively. The more difficult it is to find an effect, the smaller the effect size. The effect size is a measure of the strength of the relationship between the intervention and the outcome.

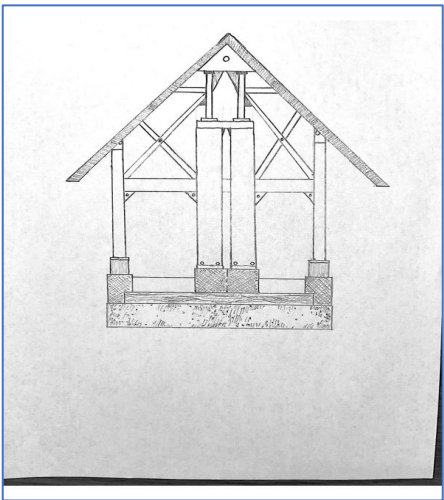
Graham, S., & Hebert, M.A. (2010). *Writing to Read: Evidence for how writing can improve reading. A Carnegie Corporation Time to Act Report*. Washington, DC: Alliance for Excellent Education.



Planning, Generating &

Critical Understandings

What are the critical concepts and understandings- big ideas you want your students to be able to plan for & write about to demonstrate understanding?



*Preparing & Planning for Writing I
Connections*

Critical understandings share several characteristics including:

- *They connect to big ideas that have a lasting impact beyond the classroom.*
- *Are transferrable to other subject areas and disciplines.*
- *They go beyond facts and provide a foundation for helping students make deeper connections.*
- *Are reoccurring and can be revisited and built upon over time.*

Purpose for Writing Instruction

What are the content/topic instructional goals and objectives?

Idea generation process primarily draws on topic/content knowledge and reading.

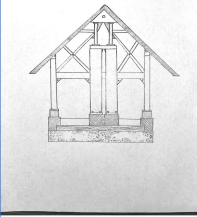
Examples: The One & Only Ivan,

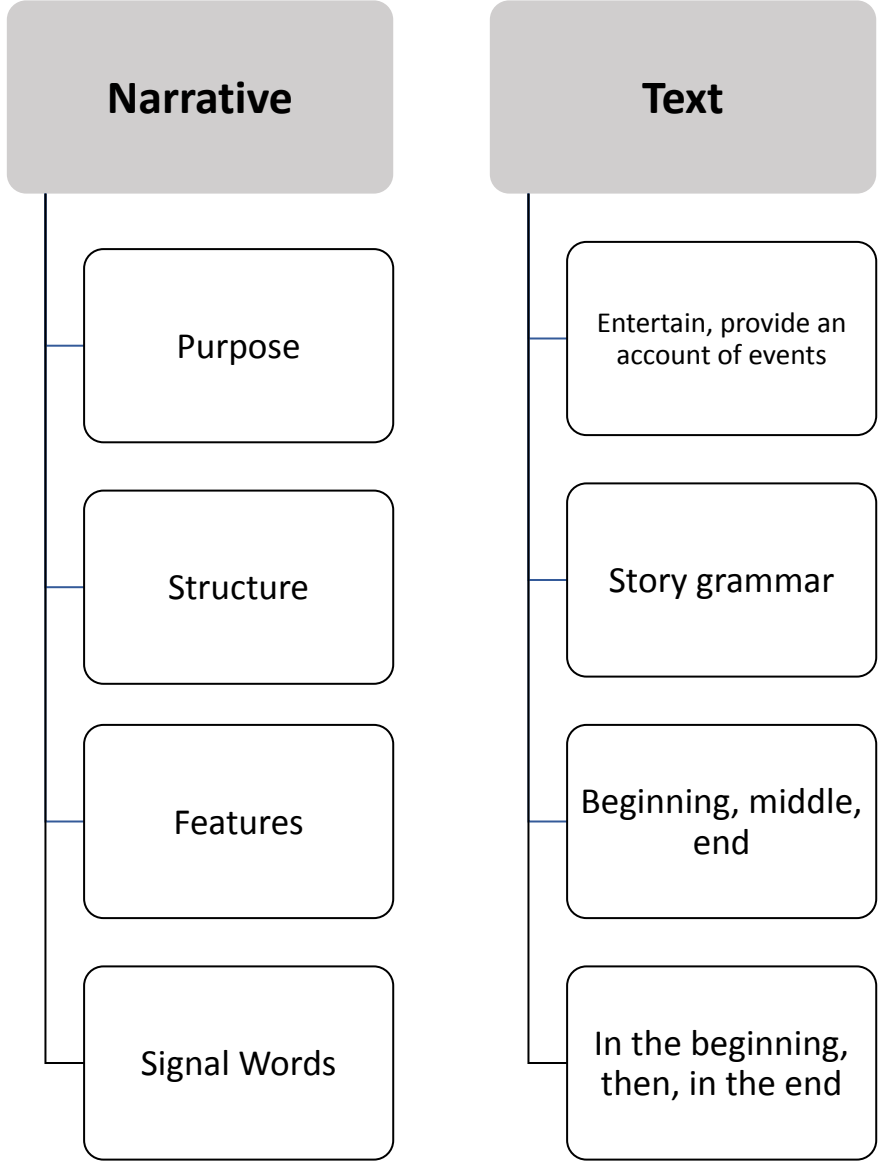
2013

Organizing Ideas to Achieve

Students must use appropriate conventional patterns for accomplishing purposes through their writing if they wish to communicate effectively with their readers. Familiarity and facility with these conventional patterns, or genres, will position students to attempt writing assignments with confidence, explore hybrid patterns of writing, or even invent new types of writing.

Troia, 2014

Reading/Comprehending Text		Writing/Composing Text	
Text Structure	<p>How is the text organized?</p> <p>How and when will you directly teach students the purpose, features, and signal words of different genres?</p> <p>How will you teach students to use the structure to understand purpose?</p> <p>To organize and express their understanding?</p>	Text Structure	<p>What basic writing structures are needed to express understanding? (e.g., paragraph structure)?</p> <p>How and when will you directly teach students the three major genres of writing: narrative, informational/expository, and opinion/argument?</p> <p>How and when will you directly teach students the purpose, features, and signal words of different genres/structures for writing?</p> <p>How will you teach students to use the specific structure needed to convey the purpose their writing? To organize and express their understanding through writing/show new learning?</p> <p>How will you instruct students to write for specific audiences? How will you</p>



Elements	Basic Questions	Advanced Questions
Setting	Where did it happen? When did it happen	What might the setting foreshadow?
Character	Who is the story about What is ____ like? Physical appearance, personality characteristics?	How does the external world affect the characters internal emotions? How do the character's internal emotions affect his or her understanding of the external world?
Problem	What is ____ problem? How did this get started? What does ____ need to try to do?	Describe the conflict? How does context affect the conflict?
Sequence of Events	What did ____ do about ____? What will ____ do now? What would you do?	What motifs are represented throughout the text?
Outcome	How did ____ solve the problem? How ____ did achieve the goal? What would you have done?	How did the process influence the outcome?
Theme	What is the major point, the big idea of the story? What is the moral or lesson of the story? What did ____ learn in the end?	Explain the main themes in the text.

Purpose for Writing Instruction

What are the literacy/writing instructional goals and objectives?

The translation process primarily draws on oral language.

Use their word meaning, sentence construction, text structures & background knowledge to translate their ideas into writing.

Translating Ideas: Vocabulary & Sentence

For writing quality, richness and clear, coherent presentation of ideas are focal aspects, and therefore, writing quality draws on use of precise and descriptive words and effective use of appropriate sentence structures), and higher order cognitions and reading comprehension...

Kim et al, 2014

Reading/Comprehending Text		Writing/Composing Text	
Vocabulary	<p>Which words will your students need to know? Which are worth knowing?</p> <p>Which ones will you intentionally/explicitly target and directly teach to deep levels of understanding?</p> <p>Which ones will you incidentally-on-purpose teach? How? When?</p> <p>Which words will you purposefully discuss and incorporate into expressive language activities?</p> <p>How and when will you teach and foster the use of independent word learning strategies?</p>	Vocabulary/Word Choice	<div data-bbox="2341 0 2548 227" data-label="Image"> </div> <p>Which words are critical to precisely expressing key understandings, to translating ideas within sentences?</p> <p>Have you explicitly taught them? If not, how will you support their development & use orally & in writing?</p> <p>Are there visuals you can incorporate to aid in word retrieval of precise meanings?</p> <p>How will you guide students in effectively employing specific vocabulary to promote precise word choice?</p> <p>Which words will you purposefully incorporate into oral written language activities?</p> <p>How will you hold students accountable for using these words in</p>

A Comprehensive Instructional

Intentional Instruction	Incidental on Purpose Instruction	Intentional Independent Word Learning Strategies Instruction
<ul style="list-style-type: none"> ✓ Word Choice ✓ Simple Instructional Routine: Definitional & Contextual Information ✓ Complex Instructional Routine: Processing & Practice Activities 	<ul style="list-style-type: none"> ✓ Structured Point of Contact Teaching ✓ Structured Teacher-Student Talk ✓ Structured Shared Reading ✓ Structured Independent Reading 	<ul style="list-style-type: none"> ✓ Using the Dictionary ✓ Using Context Clues ✓ Using Morphemic Analysis
Word Consciousness	Word Consciousness <i>Purposeful Activities</i>	Word Consciousness

Hennessy, 2020

Intentional Individual Words	Incidental Words	Intentional Word Learning Strategies
<div><div>captivity</div><div>domain</div><div>grief</div><div>project</div><div>billboard</div><div>threat</div><div>comfort</div><div>patient</div><div>migrate</div><div>treated</div></div>	<div><div>silverback</div><div>prodding</div><div>scurry</div><div>amble</div></div> <div><i>The One & Only Ivan</i></div>	<div><div>Context:</div><div>chest beat</div><div>Morphology:</div><div>vining</div><div>imagining</div></div>

Usefulness


Growth

Understanding

Connect	Represent	Use
Semantic Maps	Pictures Drawings Videos	Questions, Examples
Semantic Feature Analysis	Gestures and Movement	Conversation Prompts
Concept Maps	Word Walls	Writing Stems
		Hennessy, 2018



Generate Use Speaking-Writing



How would it feel to be a captive?

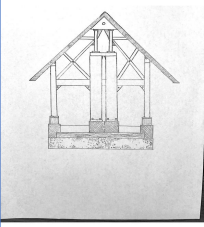
When have you had to be patient?

Have you ever been mistreated? When? How?

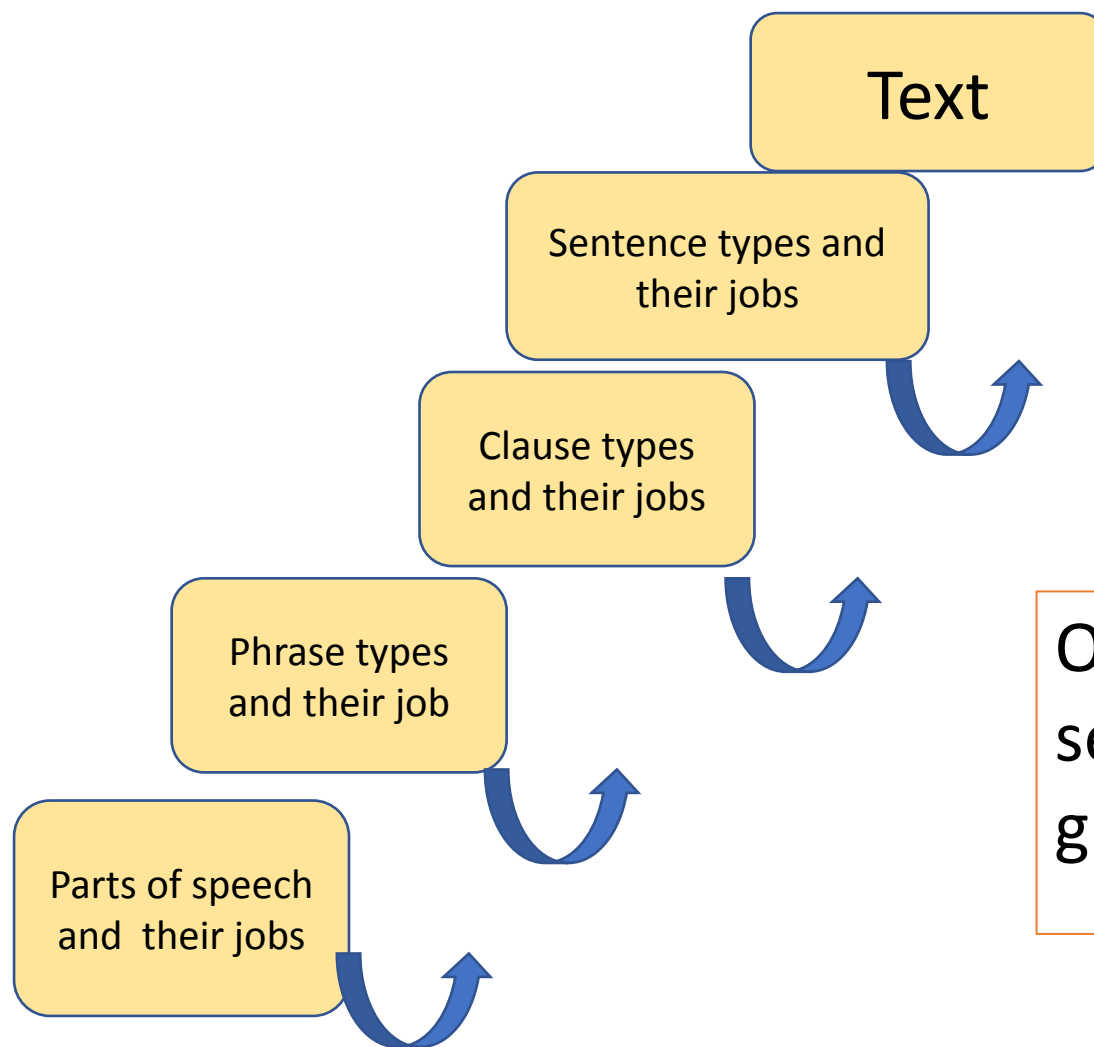
Why is the billboard & Ivan's art important important?

How can you tell Ruby is content?

How does the treatment of his friends affect Ivan?

Reading/Comprehending Text		Writing/Composing Text	
<p>LANGUAGE STRUCTURES (phrases, clauses, sentence comprehension)</p>	<p>Are there phrases, clauses, and sentence structures that may be difficult for you students?</p> <p>How and when will you directly teach sentence comprehension?</p> <p>How and when will you teach students to work with challenging sentences?</p> <p>How will you facilitate the integration of ideas within and between sentences, e.g. the use of cohesive ties and connectives? How and when will you teach students to work with these?</p>	<p>LANGUAGE STRUCTURES (phrases, clauses, sentence comprehension & composition)</p>	<p>Are there specific phrases, clauses, and sentence structures that your students need to know/use to translate identified ideas into writing?</p> <p>How and when will you directly teach the use of these building blocks for sentence composition?</p> <p>How can you integrate listening, speaking, reading and writing into sentence level tasks?</p> <p>How and when will you teach students to write more challenging sentences found in complex texts?</p> <p>How & when will you teach/support e.g. the use of cohesive ties and connectives to integrate ideas within and between sentences in writing</p> <p>How will you hold students accountable for using these structures in their written</p>

The Building Blocks of Meaning



One by one, the sentences add up to the gist of the text.

Scott & Balthazar, 2013

Think Function First, Then

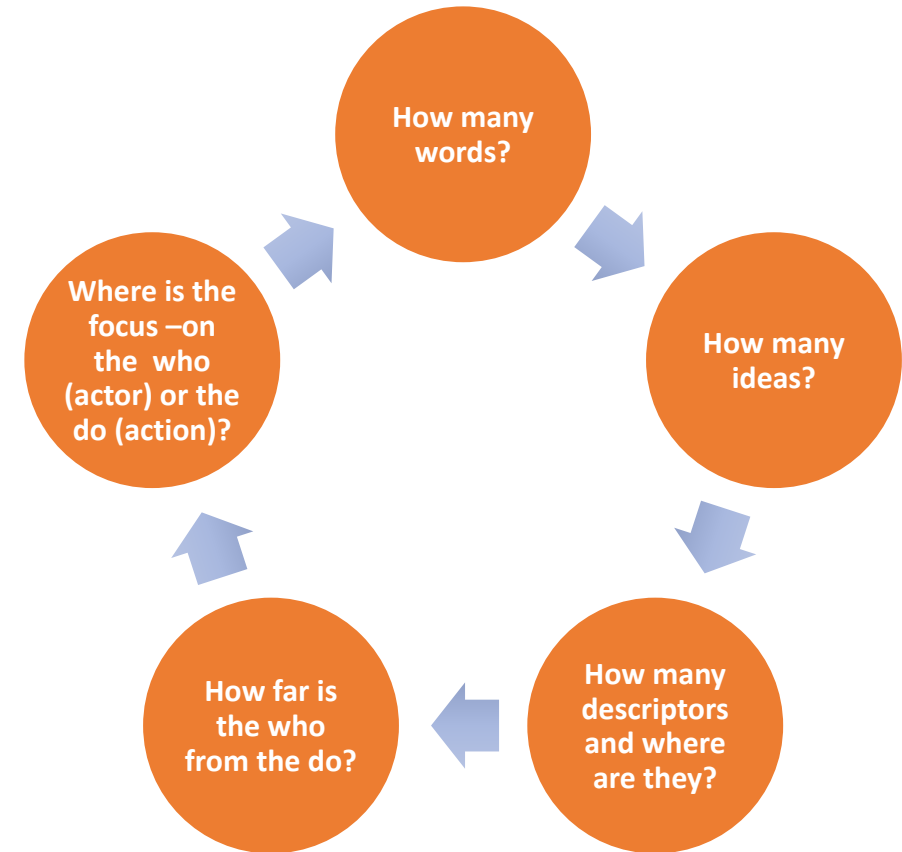
Challenging Sentence Structures...

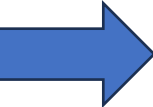

And I've learned to understand human words over the years, but understanding them is not the same as understanding humans.

Three of my walls are glass. One of them is cracked, and a small piece, about the size of my hand, is missing from the bottom corner.

They groom each other and eat and sleep then, groom each other some more. They are a contented group, placid and good natured, although, like any other family, they bicker from time to time.

The One & Only Ivan, 2013



	Intentional On Purpose: Focus	Intentional On Purpose: Activities	Incidental On Purpose: Focus	Incidental On Purpose: Activities
	Building Blocks of Sentences <ul style="list-style-type: none"> o Parts of Speech & their Jobs o Phrases & their Jobs o Clauses & their Jobs 	<i>Questioning/Parsing</i> <i>Structured Organizers</i> <i>Sorts (pictures, words)</i> <i>Visual Representations</i>	Building Blocks of Sentences	<i>Reading Experiences</i> -Shared -Group -Independent -Fluency Connection
	The Sentence <ul style="list-style-type: none"> o The Sentence & their Jobs o The Problem Sentence 	<i>Questioning</i> <i>Structured Sentence Organizers</i> <i>Sentence Frames</i> <i>Diagramming</i> <i>Anagrams (word cards)</i> <i>Sentence Building: Combining & Expansion</i>	The Sentence	<i>Oral Experiences</i> -Oral Response -Student/ Teacher Talk -Sentence Instruction -Written Responses
	Cohesive Devices <ul style="list-style-type: none"> o The Role of Cohesive Ties o The Role of Connectives 	 <i>Questioning</i> <i>Coding</i>	Writing Connections	<i>Writing Experiences</i> -Written Responses Hennessy, 2020

Structured Sentence Organizer

Which one, what kind, how, many?	Who or what?	Is or was doing?	What?	When, where, how?

Hennessy, 2020

Sentence Building

Use the words from the organizer to write a sentences that tells something important that happened in this text. For example, who/what did what, when, where and how.

Adjectives & adverbs

How would you describe?
The ant collected stores for the
winter.

The ant was industrious.

*The industrious ant collected stores
for the winter.*

The Ants & The Grasshopper

Compound subjects & objects

How was Winnie feeling?
Winnie was afraid.
She felt disheartened

Winnie was afraid and felt
disheartened.

Tuck Everlasting

Sentence Combining

Based on Saddler, 2009

Targeted Pattern	Question & Kernel Sentences	Combined Response
Adjectives and adverbs	How would you describe Frederick? -Frederick spends his days collecting sun rays, colors, and words. -He is a daydreamy mouse.	Daydreamy Frederick spends his days collecting sun rays, colors, and words.
Compound subjects and objects	How do the other mice feel about Frederick? -The mice think Frederick is lazy. -They think he’s a dreamer.	The mice think Frederick’s laziness and dreams are frustrating .
Compound sentences using coordinating conjunctions	What did Frederick contribute to his community? -Frederick contributed poetry. -He brought great joy to his community.	Frederick contributed poetry and he brought great joy to his community.
Possessive nouns	How do the other mice contribute to their community? -The mice make a contribution by preparing for the winter. -They do this by gathering nuts, corn, grain, and wheat.	The mice’s contribution is preparing for the winter by gathering nuts, corn, grain, and wheat.
Adverbial clauses using subordinating conjunctions	Why did the other mice change their minds about Frederick? -Frederick tells the mice to visualize the colors of spring. -They understand how his poetry helps to nourish their minds and hearts.	As Frederick tells the mice to visualize the colors of spring, they understand how his poetry helps to nourish their minds and hearts.

Review, Editing, Revising: Multiple Skills and Knowledge Sources

Word Recognition & Reading Comprehension

When the writer reads his/her own text for revision, he/she has to construct an accurate mental representation of the text and evaluate it compared to her intended goals, which then guides subsequent revision actions...

Writing Prompts

In class, we have been exploring animal feelings and emotions. Using the article, *Do Animals Have Feelings?*, describe the two perspectives on animal feelings and emotions. What perspective does *The One and Only Ivan* support (use specific examples from the text to prove your answer), and what perspective do you agree with?

Many people have debated whether animals have feelings or not. The article, Do Animals Have Feelings?, says yes and no. Some scientists say that animals never feel happy or sad. However, some scientists do think they feel emotion. Jane Goodall, an intelligent, curious primatologist who studied chimps, has seen chimps chasing each other for fun. It has also been proven that rats feel fear. The One And Only Ivan proves that animals do have feelings. Ivan felt grief when his sister Tag died on the ride to the Ivan's new domain. Bob is a dog with a hatred for humans. My perspective is that animals do have feelings. My dog Simba wags her tail meaning she is happy, and happiness is a emotion. In my opinion I believe animals feel emotion. There have been many different studies on whether animals have emotions, and most perspectives support that animals have emotions.

Wise words...

Graham & hebert, 2010

- ✓ *Respond to a Text in Writing (Writing Personal Reactions, Analyzing and Interpreting the Text)*
- ✓ *Write Summaries of a Text*
- ✓ *Write Notes About a Text*
- ✓ *Answer Questions About a Text in Writing, or Create and Answer Written Questions About a Text*

Gratitude!

Learning is our work!!!!