
Scaffolding Instruction Resulting in Successful Comprehension

Jodi Snyder,
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Literacy Academy - June 10, 2024



The Charge of Adolescent Literacy, 4-12

“Our kids **need to learn to read challenging literary and informational texts** from the different disciplines **in sophisticated ways**, and they need to get used to using text for **building extensive stores of knowledge** about their social and natural worlds.”



- Dr. Timothy Shanahan, 2023

Language & Literacy Continuum

Phases of Development



[Ohio's Plan to Raise Literacy Achievement](#)

Our Simultaneous Challenge

Strengthening Tier 1
instruction by ensuring
all students have
opportunity to build
knowledge through
common routines for
reading, writing, and
discussion of text in ALL
content-area classes

**Providing Tier
2 & 3 supports**
for students who have
gaps in foundational
literacy skills through a
system of assessments
with clear decision rules
and sufficient time for
intervention provided by
trained specialists



Learner Outcomes:

Participants will be able to...

Explain the significance of using common literacy routines across content areas

Identify and practice common routines to use before, during, and after reading to scaffold comprehension

Consider actions and frameworks for implementing and leading common routines

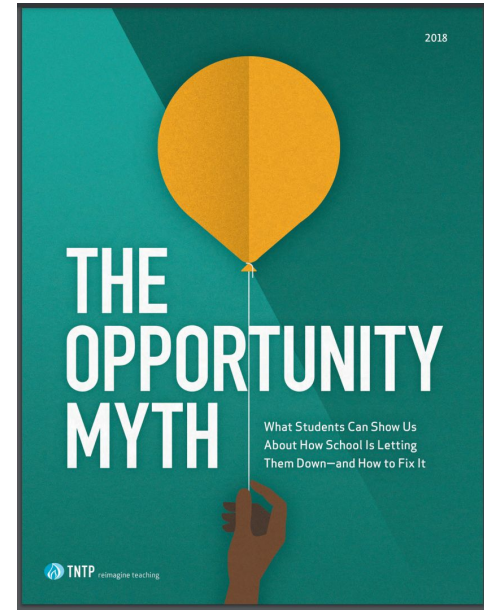
Rigorous Texts & Struggling Readers

Recent research indicates that **students actually learn more from reading texts that are considered too difficult for them** - in other words, those with more than a handful of words and concepts a student doesn't understand. **What struggling students need is guidance from a teacher in how to make sense of texts designed for kids at their respective grade levels** - the kinds of texts those kids may otherwise see only on standardized texts, **when they have to grapple with them on their own.**

(Shanahan, 2018)

Shifting Expectations & Practices

When students who started the year behind grade level were given **more grade-appropriate assignments, stronger instruction, deeper engagement, and higher expectations**, the gap between these students and their higher achieving peers **began to narrow substantially**.



[TNTP The Opportunity Myth](#)

Success rates on grade-level work were similar...

56%

Success rates on all grade-level assignments from classrooms with mostly students of color

65%

Success rates on all grade-level assignments from classrooms with mostly white students

...but 4 out of 10 classrooms with a majority of students of color
never received a single grade-level assignment.

38%

Percent of classrooms that had
no grade-level assignments in classrooms
with mostly students of color

12%

Percent of classrooms that had
no grade-level assignments in classrooms
with mostly white students

THE READING RESEARCH - PRACTICE CHASM

Come learn from us!

BARRIERS

- Lab-based/not informed by classroom realities
- Top-down/not respectful or welcoming
- Technical vocabulary/not clear, vivid, engaging
- Grant & publishing-driven



READING SCIENTISTS

Why? How?
Come learn from us!

BARRIERS

- Unclear classroom applications
- Insufficient training/support
- Lack of access to research
- Insufficient time/training for critical review



READING EDUCATORS

© COWEN

Shifting from Leveled Texts

The new standards demand regular practice with grade-appropriate texts regardless of the reading level of the student. **The idea is that teacher support and explanation, not text difficulty, is what should be differentiated.**



“Reading and Writing instruction
in America’s Schools”
- Fordham Report, 2018

Tier 1: Evidence-Based Practices

1

Explicit vocabulary instruction

2

Explicit comprehension strategy instruction

3

Extended discussion of text

4

Motivation and engagement in literacy

5

Explicit writing instruction about reading

[IES Practice Guide Improving Adolescent Literacy, 2008](#); [IES Practice Guide Providing Reading Interventions, 2022](#); [Writing to Read, 2010](#)

Building Literacy Across Content Areas

Work with a variety of texts

Use extended writing to build language and knowledge

Talk about text to build language and knowledge

Study a small set of high-utility vocabulary words needed to master content

Use school-wide protocols to support reading, writing, speaking and listening

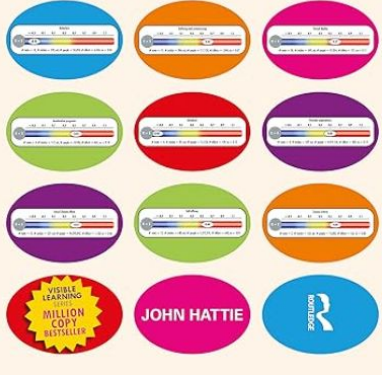
From Strategies To Routines

What makes them routines, versus mere strategies, is that **they get used over and over again** in the classroom so that they **become part of the fabric of classroom culture**. The routines become **the ways in which students go about the process of learning**. Routines are patterns of action that can be **integrated and used in a variety of contexts**. – Thinking Pathways



VISIBLE LEARNING: The Sequel

A SYNTHESIS OF OVER
2,100 META-ANALYSES
RELATING TO ACHIEVEMENT



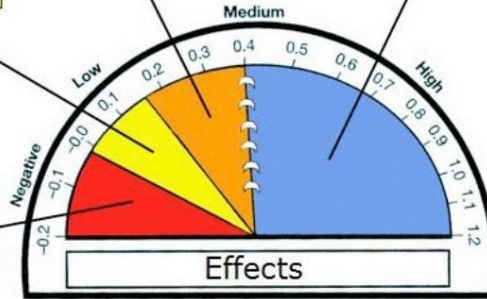
Barometers of Influence

d = 0.0 – 0.15
What students
could achieve
without
schooling

d = 0.15 – 0.4
Typical effects of
teachers on
students that can be
accomplished in a
year of teaching

d > 0.4
Zone of
desired
effects

**Below d =
0.0** Decrease
achievement



HATTIE'S BAROMETER

Research Supporting Use of Complex Text

Numerous studies over the past few decades have demonstrated that it is most helpful to teach comprehension strategies, text structures, and word-level strategies **while students are engaging in reading challenging, content-rich texts.** Such skills don't stick when practiced for their own sake. Rather, **students learn those skills best when they have compelling reasons** - such as the desire to make sense of interesting materials.

(Guthrie & Wigfield, 1997; Vacca & Vacca, 1998; Alvermann, 2002; Wilhelm & Smith, 2002; Willingham, 2007; Lupo, Strong & Smith, 2018)

Consistent Reading Routines

Before Reading

Build word and world knowledge

Establish a purpose and goals for reading

Make predictions

Examine text structure

During Reading

Promote self-regulation
(self-question, reread, monitor and stay focused)

Provide academic language support

Annotate the text

After Reading

Promote reflection of new knowledge
(summarize, question, discuss and respond to text)

Promote application of new knowledge
(formulate and defend stances)

3 Tiers of Vocabulary

Common Tier 1

- Basic words
- Often used in everyday conversation

Academic Tier 2

- More complex
- Frequently occurring words in academic settings

Content Specific Tier 3

- Highly specialized words that are related to a specific discipline or text

Characteristics of Effective Vocabulary Instruction

(Marzano, 2001)

Focus on terms that have a high probability of enhancing academic success, Tiers II & III

Students should utilize academic words in writing and classroom discussions

Gradual shaping of word meanings through multiple exposures

Move beyond definitions with explanations and descriptions using everyday language

Students represent vocabulary terms in linguistic and non-linguistic ways

Teach word parts to enhance spelling and understanding of multi-syllabic words

Examine Text Structure

Alaska Adventure

Jake Mays and his dad spent two weeks visiting Alaska. They flew to Anchorage and then took a train south to a lodge in Seward, a small harbor town surrounded by the Kenai mountain range. From there they took day trips around the area to see and experience the sights. Jake found it all so enticing that he never wanted to leave.

Every day brought a new adventure. They traveled by ferry and sailboat on the marine highways through straits and inlets. They paddled sea kayaks up narrow fjords lined with ice cliffs. They saw whales, otters, puffins, sea lions, and eagles. They spent a day on a fishing schooner catching salmon for dinner. Jake snapped pictures of every new vista.

“Mom is not going to believe how awesome the scenery is!” he said. “Next time, we have to coordinate the schedule so that she can come with us.”

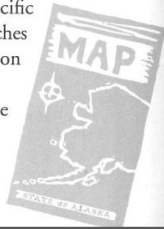
On the flight home, they pored over the map, already planning the return trip. Jake thought it would be exciting to do some backpacking on Mount McKinley, the tallest peak in North America.

“Wouldn’t it be fun to explore the state’s interior? We could travel north from Anchorage to visit Denali National Park. I heard that the fishing is first class, and there is plenty of wildlife to see.”

“That’s true,” said Dad. “Still, it is hard to resist the idea of retracing the route we just traveled. Now that we’re expert kayakers, we should paddle around the capes and coves and lagoons of the Alaska Peninsula.” Dad pointed at the chain of volcanic islands separating the Pacific Ocean from the Bering Sea. “The Aleutian archipelago stretches for more than a thousand miles. We could spend a lifetime on the water just exploring this part of the Ring of Fire.”

“Well, that settles it,” said Jake. “We just need to come back and stay longer.”

“You’ve got that right,” said Dad.



- vista
- coordinate
- interior
- route

Build word knowledge

Our word is **coordinate**. What is the word? How many syllables?

When you **coordinate** a plan, you match it up with someone else's.

The team **coordinates** to meet at the park at the same time. Everyone's plans match up.

We must **coordinate** our schedules so everyone gets picked up from school on time. We must match up our schedules.

If no one tells you where or when the team is meeting. Is that a **coordinated** or not a **coordinated** plan?

Should we **coordinate** or not **coordinate** our plans in order to do everything we want to do on vacation?

Think of two more times when you need to **coordinate** with someone, then tell your neighbor.

What are two more examples of when you need to **coordinate**?

Semantic Map

(Beck et al. 2002)

Geography

Water

ocean

river

strait

inlet

fjord

Landforms

mountain

archipelago

volcano

peninsula

island

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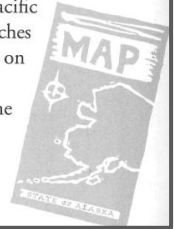
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Story Map for: _____

START

Rising Action

Conflict

Climax

Falling Action

Resolution

END

Exposition
(Setting)

Theme

(Characters)

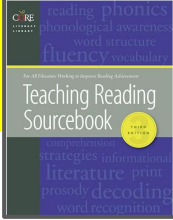
(Other Background)

Promote self-regulation

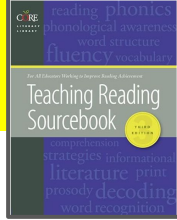
Paragraph Shrinking

(Fuchs et al, 2001)

1. Identify **who or what** (person, animal, place, or thing) a paragraph is mostly about.
2. Identify the **most important information** about the who or what.
3. **Shrink** all the information into one **main-idea statement** of 10 words or less.



Promote self-regulation



The Greenhouse Effect

The greenhouse effect is the rise in temperature that Earth experiences because certain gases in the atmosphere trap energy from the sun that is reflected off Earth-energy that would otherwise escape back into outer space. Scientist now believe that greenhouse effect is making Earth warmer, enough to drastically change the climate. An increase in global temperature of just one degree can impact the rainfall patterns and sea levels. The rise in temperature can cause problems for plants, wildlife, and humans.

Water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons (CFC_5), ozone (O_3), perfluorocarbons (PFC_5), and hydrofluorocarbons (HFC_5) are the “greenhouse gases” in our atmosphere. These types of gases behave much like the glass panes of a greenhouse. The glass lets in light but prevents heat from escaping, causing the greenhouse to heat up, much like the inside of a car parked in the sun on a hot day.

People are contributing to Earth’s warming by increasing the CO_2 in the atmosphere. Trees, like all living things, are made mostly of carbon. When people burn forests, the carbon in trees is transformed into CO_2 . Trees, like other plants, use photosynthesis to absorb carbon dioxide and release oxygen. When people cut down forests, less carbon dioxide is converted into oxygen. People also increase CO_2 in the air by burning “fossil fuels”. These fuels include gasoline used in cars, SUVs, and trucks and fuels like coal and natural gas used by power plants to create electricity. Whenever fossil fuels are burned, CO_2 is released into the air.

Promote self-regulation

Who or What

the greenhouse effect

Most Important Information

It is making Earth warmer and changing the climate, which could cause problems for living things.

Main-Idea Statement

The greenhouse effect is making Earth warmer; changing the climate.

Summarizing
.63

The greenhouse effect is the rise in temperature that Earth experiences because certain gases in the atmosphere trap energy from the sun that is reflected off Earth's energy that would otherwise escape back into outer space. Scientists now believe that the greenhouse effect is making Earth warmer, enough to drastically change the climate. An increase in global temperature of just one degree can impact the rainfall patterns and sea levels. The rise in temperature can cause problems for plants, wildlife, and humans.

Promote self-regulation

Who or What

Most Important Information

Main-Idea Statement

Water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), chlorofluorocarbons (CFC_s), ozone (O_3), perfluorocarbons (PFC_s), and hydrofluorocarbons (HFC_s) are the “greenhouse gases” in our atmosphere. These types of gases behave much like the glass panes of a greenhouse. The glass lets in light but prevents heat from escaping, causing the greenhouse to heat up, much like the inside of a car parked in the sun on a hot day.

Promote self-regulation

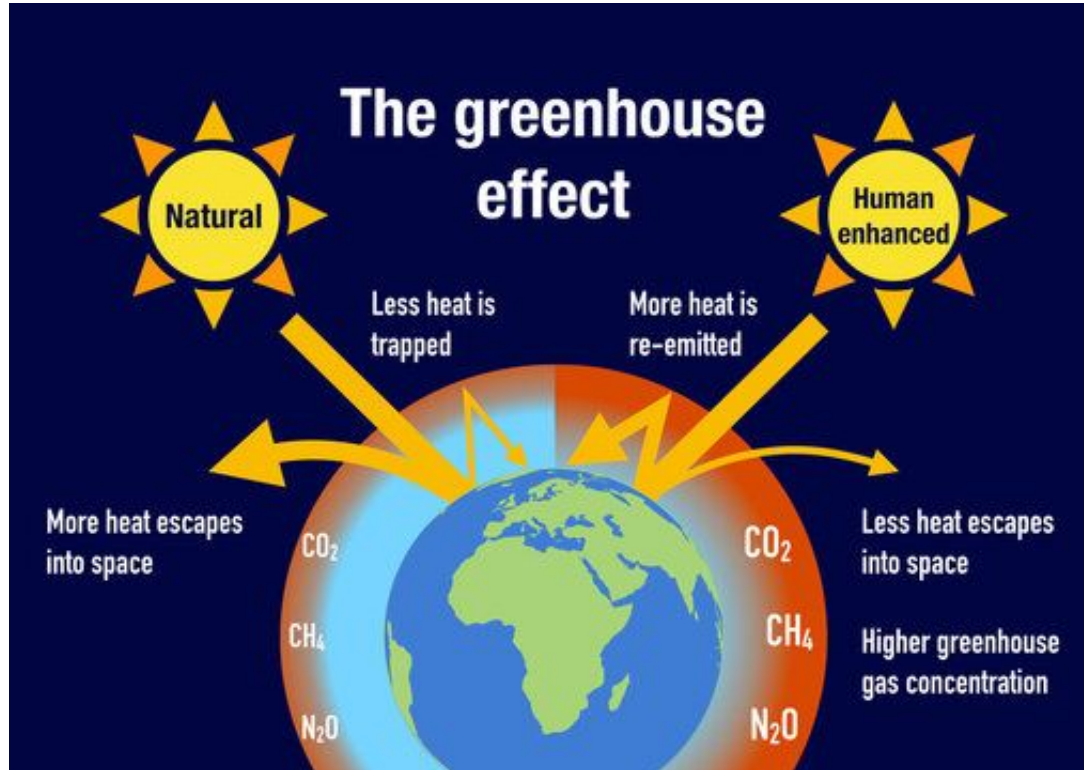
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The Role of Graphics



Unscramble the Fragment and Fix-Up into a Sentence:

write something don't they about about know
can't one

**One can't write about something they don't
know about.**

Unscramble the Fragment and Fix-Up into a Sentence:

**escaping atmosphere heat gases greenhouse
Earth's prevent from**

**Greenhouse gases prevent heat from escaping
Earth's atmosphere.**

Sentence Expansion

(Hochman & Wexler, 2017)

Pyramids were built.

When? _____

Where? _____

Why? _____

Expanded Sentence

Sentence Expansion

(Hochman & Wexler, 2017)

Pyramids were built.

When? **ancient times** _____

Where? **Egypt** _____

Why? **protect body of deceased pharaoh** _____

Expanded Sentence

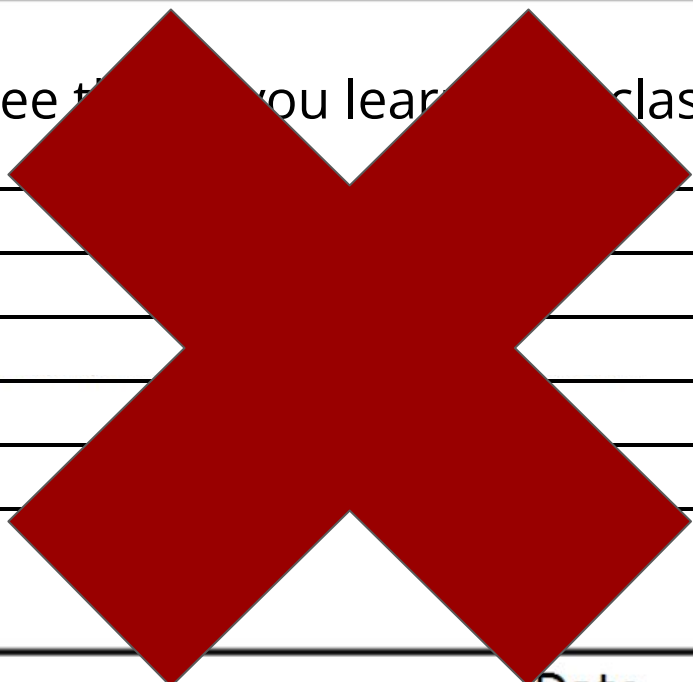
Promote reflection of new knowledge

TICKET OUT

What are three things you learned in class today?

Admit One

Name _____ Date _____



Using Conjunctions to Extend Responses

Writing about
Reading
.77

Because - Explains why something is true

But - Indicates a shift or change in direction

So - Indicates what happens as a result of something else - cause & effect

Because, But, So

Qualitative observations are similar to quantitative observations **because** they are both made using the five senses.

Qualitative observations are similar to quantitative observations **but** only quantitative uses numbers.

Qualitative observations are similar to quantitative observations **so** both are used by scientists.

Promote reflection of new knowledge

Because, But, So

Jackie solved the following equation and got 7 as her answer.

$$\begin{array}{r} 3x + 4 = x - 10 \\ -4 \quad -4 \\ \hline 3x = x - 14 \\ -3x \quad -3x \\ \hline -2x = -14 \\ -2 \quad -2 \\ \hline x = 7 \end{array}$$

Check: $3(7) + 4 = (7) - 10$
 $21 + 4 = -3$
 $25 \neq -3$

Jackie's answer was incorrect because she moved 3x over, making the left side 0.

Jackie's answer was incorrect, but she correctly moved 4 over and divided by -2.

Jackie's answer was incorrect, so her check didn't work.

Because, But, So

Math Example:

Fractions and decimals are challenging
because _____.

Fractions and decimals are challenging
but _____.

Fractions and decimals are challenging
so _____.

Because, But, So

Common routines are important **because** _____

_____.

Common routines are important **but** _____

_____.

Common routines are important **so** _____

_____.

Covert Mental Activities of Successful Readers



Monitoring
one's own
comprehension
and **re-reading**
if the text did
not make
sense



**Directing the
pace and
purpose** of
one's reading



**Making
inferences**
within and
between
sentences



Visualizing
an organized
**mental
structure** of
information



**Predicting &
Integrating
ideas** in the
text with
one's own
**background
knowledge**

[How We Learn - Ask the Cognitive Scientist, Dr. Willingham \(ufl.edu\)](#)

[Center on Instruction: Effective Instruction for Struggling Adolescent Readers.pdf](#)

Concluding Thought

Comprehension is the *OUTCOME*



Reading comprehension is not a single entity that can be explained by a unified cognitive model. Instead, it is the **orchestrated product of linguistic and cognitive processes operating on text** and interacting with background knowledge, features of text, and the purposes and goals of the reading situation.

(Castles et al., 2018)

Key Ideas

- Common before, during, and after reading routines scaffold student comprehension.
- School-wide protocols support collective teacher efficacy.
- Covert mental activities of successful readers include monitoring, directing the pace and purpose of reading, making inferences, visualizing, and integrating ideas in the text with one's background knowledge.

Reflection Questions & Commitments

How will you use this learning to increase outcomes for ALL students?

What is the next sensible and assertive action step you can take right now to support this work?

Resources

