



Breakout Sessions with *Cris Tovani*

www.literacylabs.org

Comprehension and the Common Core: Teaching Readers How to Interact and Engage with Challenging Text

July 24th -26th , 2012
Comprehension X3 Summer Institute
Denver, CO

Cris Tovani
ctovani@hotmail.com
Overland High School
Aurora, CO

1. What makes text complex and how do I scaffold instruction so students can access it?

Time is the Enemy

In a limited amount of time, where should teachers focus their efforts? Should time be spent:

Covering vast amounts of content?

Engaging students in purposeful work?

Wrestling with meaning to comprehend?

Reading Levels Change

Based on three factors:

Background Knowledge – The more background knowledge a reader has about the topic, text structure, and author, the more difficult text he can read.

Interest and Motivation – If a reader has interest in the topic or is motivated to read, he will work harder to comprehend.

Purpose – When a reader knows why he is reading something and knows what he needs to get from the text, he can better sift and sort information to determine what is important.

Vietnam vet and winner of the *National Book Award*, Tim O'Brien provides a number of sharp vignettes. This one hurts, even as it shows we are often blind to our cruelty and its costs.

The Man at the Well

Tim O'Brien

He was just an old man, an old Vietnamese farmer. His hair was white, and he was somewhere over seventy years, stooped and hunched from work in the paddies, his spine bent into a permanent calcified arc. He was blind. His eyes were huge and empty, glistening like aluminum under the sun, cauterized and burnt out. But the old man got around.

In March, we came to his well. He stood and smiled while we used the water. He laughed when we laughed. To be ingratiating, he said, "Good water for good GIs." Whenever there was occasion, he repeated the phrase.

Some children came to the well, and one of them, a little girl with black hair and hoops of steel through her ears, took the old fellow's hand, helping him about. The kids giggled at our naked bodies. A boy took a soldier's rifle from out of the mud and wiped it and stacked it against a tree, and the old man smiled.

Alpha Company decided to spend the day in the old man's village. We lounged inside his hut, and when resupply brought down cold beer and food, we ate and wasted away the day. The kids administered professional back rubs, chopping and stretching and pushing our blood. They eyed our C-rations, and the old, blind man helped when he could.

When the wind stopped and the flies became bothersome, we went to the well again. We showered, and the old fellow helped, dipping into the well and yanking up buckets of water and sloshing it over our heads and backs and bellies. The kids watched him wash us. The day was as hot and peaceful as a day can be.

The blind farmer was showering one of the men. A blustery and stupid soldier with blond hair and a big belly, picked up a carton of milk and from fifteen feet away hurled it, for no reason, aiming at the old man and striking him flush in the face. The carton burst, milk spraying on the old man's temples and into his cataracts. He hunched forward rocking precariously and searching for balance. He dropped his bucket, and his hands went to his eyes then dropped loosely to his thighs. His blind gaze fixed straight ahead, at the stupid soldier's feet. His tongue moved a little, trying to get at the cut and tasting the blood and milk. No one moved to help. The kids were quiet. The old man's eyes did a funny trick, almost rolling out of his head, out of sight. He was motionless, and finally he smiled. He picked up the bucket and with the ruins of goodness spread over him, perfect gore, he dunked into the well and came up with water, and showered a soldier. The kids watched.

Thinking Strategies Used by Proficient Readers

(Based on the research synthesis of P. David Pearson and Janice A. Dole)

A strategy is an intentional plan that is flexible and can be adapted to meet the demands of the situation.

Proficient Readers:

- **Activate background knowledge** and make connections between new and known information.
- **Question the text** in order to clarify ambiguity and deepen understanding.
- **Draw inferences** using background knowledge and clues from the text.
- **Determine importance** in order to distinguish details from main ideas.
- **Monitor comprehension** in order to make sure meaning is being constructed.
- **Reread and employ fix-up strategies** to repair confusion.
- **Use sensory images** to enhance comprehension and visualize the reading.
- **Synthesize** and extend thinking.

MATH THINKING STRATEGIES

Mathematical Reading	Thinking Strategies
Activating and Building Background Knowledge	<ul style="list-style-type: none"> ❖ What do I already know about this type of problem, function, logarithm, or formula? ❖ How do I connect what I know to what I need to solve this problem? ❖ What information do I need to find out in order to solve this problem? ❖ How is what I'm solving for similar to what I've done before? ❖ What patterns and relationships do I notice?
Asking Questions	<ul style="list-style-type: none"> ❖ What is the problem asking me to do? ❖ What would a reasonable answer be? ❖ How is what I'm solving for fit in the world outside of school? ❖ What information do I need to solve this problem? ❖ Where can I go to get more information?
Inferring to Draw Conclusions	<ul style="list-style-type: none"> ❖ How can I estimate, predict, and generalize the information in front of me to solve the problem? ❖ What information do I glean from the graphs/data and what might it mean? ❖ How do the graphs and data help me predict and generalize trends or patterns? ❖ How does my solution compare to what I know to be true?
Determining Importance	<ul style="list-style-type: none"> ❖ What do I need to do first? ❖ How do I use the information I already have to find the unknowns? ❖ What relevant information is held in the datum, graphs, charts, and tables? ❖ How will I record my thinking so that I can remember and reuse it?
Monitoring Comprehension	<ul style="list-style-type: none"> ❖ What do I understand about the diagrams, data, and graphs? Where am I confused? ❖ Can I explain to someone how I solved the problem? Is my solution reasonable? ❖ What specific vocabulary do I need to know? ❖ Have I accurately read the units and correctly labeled my solution? ❖ How can I check to see if my work is accurate?
Rereading to Repair Meaning	<ul style="list-style-type: none"> ❖ What different ways could I attack the problem? ❖ What question can I ask to isolate my confusion? ❖ Are my calculations and conversions correct? ❖ What could I sketch that would help me "see" what I am trying to solve?
Synthesizing and Extending Thinking	<ul style="list-style-type: none"> ❖ How has my thinking changed? What am I wondering now? ❖ How will I use what I've figured out to complete a task or theorize other possibilities?

SOCIAL STUDIES THINKING STRATEGIES	
Social Studies Reading	Thinking Strategies
Activating and Building Background Knowledge	<ul style="list-style-type: none"> ❖ What do I know about the topic, time period, concept, or issue and how do I use it to make sense of new information? ❖ How does the reading relate to what I know and to current events? ❖ Where do I go to build background knowledge about the topic?
Asking Questions	<ul style="list-style-type: none"> ❖ What questions do I need to ask? ❖ What factual information do I need to make sense of this topic, time period, and concept? ❖ What questions can be answered in the text and which ones require in inference?
Inferring to Draw Conclusions	<ul style="list-style-type: none"> ❖ How can I generalize the information to draw conclusion or make predictions about the future? ❖ What information can I glean from the graphs, data, and pictorial representations? ❖ How does factual information help me predict and generalize trends or patterns? ❖ How do past performance compare to actions of the day?
Determining Importance	<ul style="list-style-type: none"> ❖ From whose perspective is the text written? ❖ What information is based on bias and what is based on evidence? ❖ How do I use the information I already have to suggest possible solutions? ❖ What relevant information is held in the datum, graphs, charts, and tables? ❖ How will I record my thinking so that I can remember and reuse it? ❖ How do I organize the information in a useful fashion?
Monitoring Comprehension	<ul style="list-style-type: none"> ❖ What makes sense and where am I confused? ❖ How do I explain my position to someone else? ❖ What is the essential vocabulary? ❖ What names, dates, and places are necessary to remember? ❖ Based on my purpose, what information matters most?
Rereading to Repair Meaning	<ul style="list-style-type: none"> ❖ How can I reread from a different perspective? ❖ What question can I ask to isolate my confusion? ❖ Is my information accurate and how does my thinking change based on new information?
Synthesizing and Extending Thinking	<ul style="list-style-type: none"> ❖ How has my thinking grown? ❖ What generalizations can I make about the current state of affairs? ❖ What different sources can I go to add to my thinking? ❖ How will I use what I've figured out to continue my research?

Tovani 2012

SCIENCE THINKING STRATEGIES	
Scientific Reading	Thinking Strategies
Activating and Building Background Knowledge	<ul style="list-style-type: none"> ❖ What do I already know about the topic? ❖ How do I connect what I know to what I need to solve this problem? ❖ How does what I already know connect to the topic? ❖ How is this analogous to something I am familiar with? ❖ How is what I've learned like what I know? ❖ What patterns and relationships do I notice?
Asking Questions	<ul style="list-style-type: none"> ❖ What is my hypothesis? How do I confirm or disconfirm it? ❖ What am I wondering about how certain process work? ❖ How is what I'm about fit with the natural world? ❖ What information do I need to solve this problem? ❖ Where can I go to get more information?
Inferring to Draw Conclusions	<ul style="list-style-type: none"> ❖ How can I estimate, predict, and generalize information to solve a problem or make sense of a concept? ❖ What information do I glean from the graphs, data, and diagrams? What do I see and what does it mean? ❖ How do the graphs, data, and diagrams help me predict and generalize trends or patterns? ❖ How does my conclusion compare to what I know to be true?
Determining Importance	<ul style="list-style-type: none"> ❖ What text features are emboldened or accentuated and how do they help me know what the author is emphasizing? ❖ What do the diagrams and pictures tell me about the processes, datum, formulas, and cycles I am studying? ❖ How do I use the information I already have to find the unknowns? ❖ What relevant information is held in the datum, graphs, charts, and tables? ❖ How will I record my thinking so that I can remember and reuse it? ❖ How will I visually represent a new concept?
Monitoring Comprehension	<ul style="list-style-type: none"> ❖ What do I understand about the diagrams, data, and graphs? Where am I confused? ❖ Can I explain to someone how I solved the problem? Is my solution reasonable? ❖ What specific vocabulary do I need to know most? ❖ Have I accurately read the units?
Rereading to Repair Meaning	<ul style="list-style-type: none"> ❖ What different ways can I reread the text? ❖ What question can I ask to isolate my confusion? ❖ How does what I read connect to the lab work and notes from class? ❖ What can I sketch to help me "see" what I am reading?
Synthesizing and Extending Thinking	<ul style="list-style-type: none"> ❖ What new hypothesis and thinking do I have? ❖ What am I wondering now? ❖ How can I use new reading to complete a task or theorize possibilities?

Many define reading as an act of engagement between the reader and the text.

What do I need in order to engage with text?

1. **Strategies** to access text when reading words alone doesn't produce meaning.
2. **Accessible Text** that is near my "reading level."
3. **Purpose and relevancy** so I know that my time is being used wisely.

The following is an adapted from P.C. Schlechty's Level of Learner Engagement:

Levels of Learner Engagement

1	Engagement	Engagement occurs when the task, activity, or work is associated with a result that has clear meaning and immediate value to the learner. For example, reading a book on a sport or hobby that is of interest.
2	Strategic Compliance	This type of engagement occurs when the assigned work has little or no inherent meaning or immediate value to the learner, but the learner associates it with extrinsic results that are of value. For example, reading a book in order to get a good grade on a test.
3	Ritual Compliance	This kind of engagement occurs when the learner is willing to expend whatever effort is necessary to avoid negative consequences, even though the learner sees little meaning or value in the task. For example, completing comprehension questions at the end of a reading assignment in order to avoid being "grounded."
4	Retreatism	The learner becomes disengaged from the task and expends little or no energy attempting to comply with the demands of the task or the teacher, but does not act in ways that disrupt others, or does not try to substitute other activities for the assigned task.
5	Rebellion	The learner refuses to do the assigned tasks, acts in ways that disrupt others, and/or tries to substitute tasks and activities to which the learner is committed to in lieu of those assigned or supported by the school and teacher.

- **What does engagement look like?**

- **How do you know your students are engaged?**

What Leads to Motivation and Engagement?

From *Drive* by Daniel Pink (2009, Riverhead Books)

Most of us believe that the best way to motivate others and ourselves is with external rewards like money—the carrot and stick approach. That’s a mistake. The secret to high performance and satisfaction—at work, at school, and at home—is the deeply human need to direct our own lives (autonomy), to learn and create new things (mastery), and to better ourselves and our world (purpose).

Autonomy

Our “default system is to be autonomous and self-directed. Unfortunately, circumstances—including out dated notions of “management”—often conspire to change the default setting. To encourage the type of behavior that enables high-performance...people need autonomy over task (what they do), time (when they do it), team (who they do it with), and technique (how they do it). Companies that offer autonomy, sometimes in radical doses, are outperforming their competitors (207).

Mastery

Only engagement can produce mastery—becoming better at something that matters. And the pursuit of mastery, an important but often dormant part of our third drive, has become essential to making one’s way in the economy. Mastery begins with “flow”—optimal experiences when the challenges we face are exquisitely matched to our abilities. Mastery is a mindset: It requires the capacity to see your abilities not as finite, but as infinitely improvable. Mastery is a pain: it demands effort, grit, and deliberate practice. And mastery is an asymptote: it’s impossible to fully realize, which makes it simultaneously frustrating and alluring (208).

Purpose

The first two legs of the Type I tripod, autonomy and mastery, are essential. But for proper balance we need a third leg—purpose, which provides a context for its two mates. Autonomous people working toward mastery perform at very high levels. But those who do so in the service of some greater objective can achieve even more. The most deeply motivated people—not to mention those who are most productive and satisfied—hitch their desires to a cause larger than themselves. From the moment that human beings first stared into the sky, contemplated their place in the universe, and tried to create something that bettered the world and outlasted their lives, we have been purpose seekers. “Purpose provides activation energy for the living,” writes psychologist Mihaly Csikszentimihalyi. “I think” he writes, “that evolution has had a hand in selecting people who had a sense of doing something beyond themselves” (133-34).

Conversation Voice (useful voice)

This voice helps readers to:

- ❑ Relate to the text
- ❑ Make connections between the book and the reader
- ❑ Ask questions
- ❑ Give opinions
- ❑ Talk back to the text
- ❑ Remember what is read

Reciting Voice (waste of time voice)

This voice causes readers to:

- ❑ Lose track of what is being read
- ❑ Stray from the text
- ❑ Forget what is read
- ❑ Not care about the reading

Turn off the reciting voice by **rereading** and giving yourself a job or a **purpose** to read for.

Reading Purposes

Some purposes are:

- ❑ Ask a question
- ❑ Look for the answer to a question
- ❑ Make a connection
- ❑ Look for clues to help draw an inference
- ❑ Retell what has been read
- ❑ Try to visualize a picture

Name _____
Period _____
Date _____

Inner Voice Sheet

Title and Author of Text: _____

Directions: Where did you begin _____?

Record the conversation you have in your head as you are reading. Be sure to record at least four sentences per box. If you catch your mind wandering as you read stop and go back to the place you last remember. Reread that portion with a specific purpose in mind. See if you can ask a question or listen to your inner voice with the intent to connect, give your opinion, or draw an inference.

Inner Voice on page _____	Inner Voice on page _____
Inner Voice on page _____	Inner Voice on page _____

Interrogating Texts: 6 Reading Habits to Develop in Your First Year at Harvard

Critical reading--active engagement and interaction with texts—is essential to your academic success at Harvard, and to your intellectual growth. Research has shown that students who read deliberately retain more information and retain it longer. Your college reading assignments will probably be more substantial and more sophisticated than those you are used to from high school. The amount of reading will almost certainly be greater. College students rarely have the luxury of successive re-readings of material, either, given the pace of life in and out of the classroom.

While the strategies below are (for the sake of clarity) listed sequentially, you can probably do most of them simultaneously. They may feel awkward at first, and you may have to deploy them very consciously, especially if you are not used to doing anything more than moving your eyes across the page. But they will quickly become habits, and you will notice the difference—in what you “see” in a reading, and in the confidence with which you approach your texts.

1. Previewing: Look “amend” the text before you start reading.

You’ve probably engaged in one version of previewing in the past, when you’ve tried to determine how long an assigned reading is (and how much time and energy, as a result, it will demand from you). But you can learn a great deal more about the organization and purpose of a text by taking note of features other than its length. Previewing enables you to develop a set of expectations about the scope and aim of the text. These very preliminary impressions offer you a way to focus your reading. For instance:

- What does the presence of headnotes, an abstract, or other prefatory material tell you?
- Is the author known to you, and if so, how does his (or her) reputation or credentials influence your perception of what you are about to read? If unknown, has an editor helped to situate the writer (by supplying brief biographical information, an assessment of the author’s work, concerns, and importance)?
- How does the disposition or layout of a text prepare you for reading? Is the material broken into parts--subtopics, sections, or the like? Are there long and unbroken blocks of text or smaller paragraphs or “chunks” and what does this suggest? How might the layout guide your reading?
- Does the text seem to be arranged according to certain conventions of discourse? Newspaper articles, for instance, have characteristics that you will recognize; textbooks and scholarly essays are organized quite differently from them, and from one another. Texts demand different things of you as you read, so whenever you can, register the type of information you’re presented with.

2. Annotating: “Dialogue” with yourself, the author, and the issues and ideas at stake. From start to finish, make your reading of any text thinking-intensive.

- First of all: **throw away the highlighter** in favor of a pen or pencil. Highlighting can actually distract from the business of reading and dilute your comprehension. It only seems like an active reading strategy; in actual fact, it can lull you into a dangerous passivity.
- **Mark up the margins of your text with WORDS:** ideas that occur to you, notes about things that seem important to you, reminders of how issues in a text may connect with class discussion or course themes. This kind of interaction keeps you conscious of the REASON you are reading and the PURPOSES your instructor has in mind. Later in the term, when you are reviewing for a test or project, your marginalia will be useful memory triggers.
- **Develop your own symbol system:** asterisk a key idea, for example, or use an exclamation point for the surprising, absurd, bizarre. Like your marginalia, your hieroglyphs can help you reconstruct the important observations that you made at an earlier time. And they will be indispensable when you return to a text later in the term, in search of a passage, an idea for a topic, or while preparing for an exam or project.
- **Get in the habit of hearing yourself ask questions—**“what does this mean?”, “why is he or she drawing that conclusion?”, “why is the class reading this text?” etc. Write the questions down (in your margins, at the beginning or end of the reading in a notebook, or elsewhere).

When I annotate, what do I write?

Sometimes I:

Record a **REACTION**

Ask a **QUESTION**

Give an **OPINION**

Make a **CONNECTION**

Respond to how I would **RELATE** if I
were in that situation

What are some other ways we can record
thinking?

Annotating Text: Recording thinking so that it can be remembered and reused

“What story do the diagrams tell?” Lynn Bruskivage

Recording thinking while reading helps a reader remember what he has read. It also provides an opportunity for the reader to wrestle with meaning. Knowing what to write when annotating gives the reader a purpose and also helps the reader determine what is important. Below are some options for annotation:

- Study the ***Diagrams*** and ***Data***. What is significant? What is surprising and what is expected? How does the graphic work? What processes are unclear and what questions can be asked about the information?
- Record the ***What***. Describe what is significant about the process and what conditions make the event possible.
- Record an ***Analogy***. Compare the reading to something that is already understood. For example: lines of military defense to the lines of the immunity system's defense
- Record the ***Where***. Where in the body/nature is the action happening? Are there other places similar events take place?
- Record questions.
- Record connections to know information.
- Record hypotheses.
- Record thinking that is new or surprising.

Annotating Text: Recording thinking so that it can be remembered and reused

“It’s all about cause and effect.” Joe Colacioppo

Recording thinking while reading helps a reader remember what he has read. It also provides an opportunity for the reader to wrestle with meaning. Knowing what to write when annotating gives the reader a purpose and also helps the reader determine what is important. Below are some options for annotation:

- Record the ***Who***. Define who are “biggies” in the selection and why they important. Consider their political affiliation, special interests, and with whom they align.
- Record the ***What***. Describe what is significant about the event and what conditions made the event possible.
- Record the ***When***. Pinpoint when the event occurred and consider when the issue(s) concerning the event will resurface.
- Record the ***Where***. Where in the world is this happening? Is the geography significant and have other significant events happened here before?
- Record questions.
- Record connections.
- Record opinions.

Annotating Text: A way to record thinking so that it can be remembered and reused

“The brilliance is in the question.” Barbi Bess

Recording thinking while reading helps a reader remember what he or she has read. It also provides an opportunity for the reader to wrestle with meaning. Knowing what to write when annotating gives the reader a purpose and also helps the reader determine what is important. Below are some options for annotation:

- Record the ***Action***. What is happening in the story? Who is involved in the conflict and has anyone changed as a result of the struggle?
- Record the ***Who***. Identify the protagonist and the antagonist. Examine how other characters fit into the plot. What purposes do they serve?
- Record the ***Literary Elements***. Choose a literary element and consider how the author is using it to convey meaning.
- Record the ***Where and When***. Setting gives the story context. It helps the reader know why characters respond the way they do.
- Record connections to other texts and personal experiences.
- Record questions.
- Record opinions.
- Record your response. What emotions does the work evoke?

Why Bother to Annotate or Use Any Tool to Hold Thinking?

It helps the reader:	It helps the teacher/administrator:
<ul style="list-style-type: none">• Engage with the text when his or her mind is wandering	<ul style="list-style-type: none">• Distinguish who is reading and who is “fake” reading
<ul style="list-style-type: none">• Hold thinking so it can be referred to later	<ul style="list-style-type: none">• “See” what strategies readers are using to access meaning
<ul style="list-style-type: none">• Recall thinking so he/she can share with an expert what he/she needs	<ul style="list-style-type: none">• Diagnose what learners need in order to better comprehend text
<ul style="list-style-type: none">• Remember what he/she thought was important while reading	<ul style="list-style-type: none">• Assess what learners know and can do
<ul style="list-style-type: none">• Notice patterns, synthesize new thinking, and ask questions	<ul style="list-style-type: none">• Notice how the reader is attacking the text

Double Entry Diary:

Page number and line from the text that make me think:	Reaction and thinking to the line and how it impacts the way I think:
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

My thinking about risk and what lengths people will go to in order to get what they want:

Monitoring Meaning

What Makes the Text Difficult?	What I Can Do to Help Myself?
<ul style="list-style-type: none"> • “I’m not sure what I’m reading for.” 	<ul style="list-style-type: none"> • Set a purpose even if it is just reading with a strategy in mind.
<ul style="list-style-type: none"> • “The topic is uninteresting.” 	<ul style="list-style-type: none"> • Read in chunks and then paraphrase what you remember.
<ul style="list-style-type: none"> • “I don’t know much about the topic.” • “I don’t ‘get’ anything.” 	<ul style="list-style-type: none"> • Ask questions and then share them with discussion groups. Ask other kids in the class what they know. • Ask questions to isolate confusion.
<ul style="list-style-type: none"> • “I don’t see a reason to learn this.” • I’m getting bored.” 	<ul style="list-style-type: none"> • Be sassy with the text. Ask why this matters and see if you can connect it to class notes or something you’ve done in class.
<ul style="list-style-type: none"> • “There are too many unknown words.” 	<ul style="list-style-type: none"> • Pick the words that keep reappearing. Use the dictionary or glossary.
<ul style="list-style-type: none"> • “My mind keeps wandering.” 	<ul style="list-style-type: none"> • Consciously re-read with a purpose in mind.
<ul style="list-style-type: none"> • “There are not enough pictures.” 	<ul style="list-style-type: none"> • Use the diagrams available. Sketch what you think you are visualizing.

Three Options for Grading

Option 1: Demonstration of attempt and completeness the task - students earn points for attempting the activity and demonstrating thinking.

Example: Annotate five pieces of thinking on a piece of text. Each piece of thinking is worth 3 points up to a total of 15 points.

Purpose: This informs instruction immediately. The teacher can see who is working, what they get, and where they are confused.

Option 2: Demonstration of Improvement and Practice – students earn points for demonstrating growth and improvement.

Example: Students compare a piece of writing to a class generated rubric. Students are familiar with the rubric and therefore know how their performance has changed. For this particular type of grading students have the opportunity to go back and revise and improve product.

Purpose: Students and teachers work together to improve performance. Teachers can see where differentiation of instruction needs to occur and students can see their strengths and improve on areas of weakness.

Option 3: Demonstration of Mastery – students earn points for demonstrating understanding of a material.

Example: Often these are common assessments, chapter tests, and final projects.

Purpose: These assessments allow the teacher to go back and examine instructional practices. Teachers working together can look at common assessments and see where students scored well and in places where they didn't score so well, teachers can revise instruction. This more traditional form of assessing can inform instruction for the following semester or year but does little to help the students' master understanding because the teacher is moving on with instruction.