



*Celebrating & exploring
SIM connections*

Oread Hotel • Lawrence, Kansas

STRUCTURE Your Reading for Specific Academic Disciplines in Print and Digital Text

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ADVANCE ORGANIZER



Guiding Questions

- How can **STRUCTURE** Your Reading be adapted to address disciplinary literacy?
- Is there any evidence that doing so works?





Organization

- 1. About STRUCTURE Your Reading (SYR)**
- 2. Discipline specific literacy parameters**
- 3. Disciplinary literacy adaptations to SYR**
- 4. Effectiveness data**



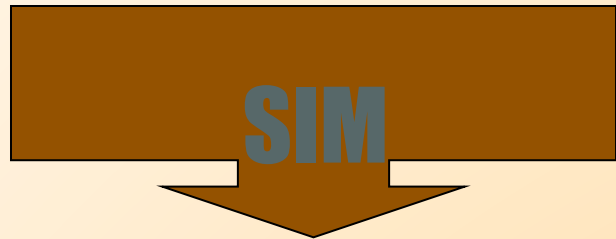


ABOUT STRUCTURE YOUR READING

STRUCTURE Your Reading

A STRATEROUTINE TO PROMOTE STRATEGIC READING





Student Success

**Learning Strategies
Curriculum**

**Content Enhancement
Routines**

STRUCTURE Your Reading





I'm 17 years old. Why did you wait until now to tell me you have to think while you're reading?



What is it?

- **It is an explicit approach to teach strategic reading.**
- **It provides a framework that integrates research-validated components of proficient reading in a systematic way to enhance comprehension of text.**



What is it?

- **It provides a context within which to teach specific reading strategies so that students can understand the role that individual strategies play in the total reading comprehension process.**
- **It also provides a package that helps students put together individual strategies that they have learned so that they know how to employ strategies before, during, and after reading.**

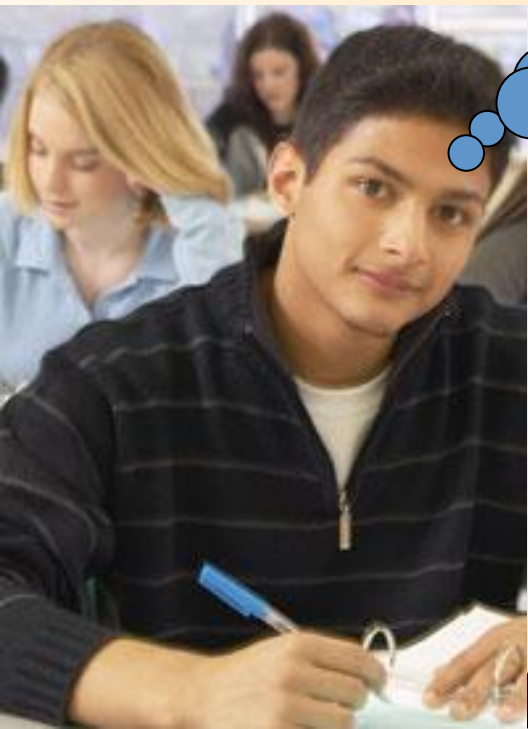


What are the big ideas behind the strateroutine?

- **You have to teach many students to be strategic readers.**
 - **What do strategic readers do?**
 - **They think about the reading selection before, during and after reading.**
 - **They know and use tools to help themselves understand what they read and prove that they understand.**
- **Teaching the integrated processes of strategic reading is an important goal. Teaching individual strategies is a part of that goal. The whole takes precedence over the parts.**



What can I do to help myself understand what I'm reading?





Where does it fit within SIM?

- Offers a framework within which to package SIM Learning Strategies and teach students when to use the strategies they know.
- Provides a context and therefore a rationale for learning new strategies.
- Allows for inclusion of other research-validated strategies (not just SIM).
- Does not REQUIRE SIM professional development.
- It is actually a CLC microstructure; i.e. All 5 levels can be addressed using SYR as a framework.



How is SYR used?

- **At the beginning stages of teaching, the teacher describes, models and guides students' use of SYR with the use of a worksheet.**
- **As the students demonstrate proficiency with using the approach, the teacher's involvement decreases, as she facilitates student self-prompting.**
- **The ultimate goal is for the students to use the steps independently, without the worksheet, using the questions they learn as self-prompts.**



STRUCTURE Your Reading



GO
-
DOWN

S **Set a purpose.**
Why am I reading this?

Orients to the kind of thinking and level of detail necessary.

T **Think about the topic.**
What do I know about the topic?

Activates prior knowledge.

R **Run through to preview.**
What's coming?

- Identify organizational clues
- Predict content
- Note reader's aids
- Find new words

Sets up expectations as to structure, content, resources available and unknown words.

STRUCTURE Your Reading



U Use strategies.

What tools will help me?

C Check comprehension.

Do I understand?

Clarify confusing parts.

How can I figure it out?

Confirm predictions.

Are my guesses right?

Prompts a selection of best bet strategies based on material type and personal choice.

Employs self-monitoring and repair.

Harkens back to predictions made in previewing.



Strategy Menu

- **Visual Imagery**
- **Self-questioning**
- **Paraphrasing**
- **Summarizing**
- **Questioning the author**
- **Making more predictions**
- **Identifying patterns in text**
- **Making connections**
- **Using visual aids**
- **Using graphic and other organizers**
- **Rereading**
- **Underlining/highlighting**

and Others

STRUCTURE Your Reading



LOOK
back

T **Tell your personal reaction.**
What do I think and feel?

U **Uncover critical content.**
What are the key ideas?

R **Review the reactions of others.**
How do others think and feel?

E **Enjoy success!**
How did strategies help me?

Establishes a personal connection with the material.

Requires a response to the reading to demonstrate

comprehension.
Promotes social interaction around reading.

Encourages attribution of success to being strategic.



SYR Worksheet

- **Makes instruction explicit**
- **Is accompanied by an annotated list of strategies**
- **Provides an opportunity to gauge strategic reading progress (Can be scored)**
- **Must be faded for SYR to become a strategy for the students**

STRUCTURE Your Reading Worksheet**GET IN GEAR****LOOK BACK****1. S**et a purpose for reading. *Why am I reading this?* (2)

Assignment:

Other reason:

2. Think about the topic. *What do I know about the topic?* (4)**GET
IN
GEAR****3. R**un through to preview. *What's coming?*

Identify organizational clues (4)

Predict content (4)

Note reader's aids (2)

Find new words (6)

STRUCTURE Your Reading



GET IN GEAR



LOOK BACK

4. Use strategies while reading. *What tools will help me?* (3)

--

--

--

5. Check comprehension. (1)
Do I understand?

--

Clarify confusing parts. (1)
How can I figure it out?

--

Confirm predictions. (1)
Are my guesses right?

--

6. Tell your personal reaction. *What do I think and feel?* (2)

--

7. Uncover critical content. (15) (2)

*What are the
key ideas?*

What else do I want to know?

Complete
assignment

--

8. Review the reactions of others. *What do others think and feel?* (2)

--

9. Explain your success. *How did strategies help me?* (1)

--

Score: /50

4.0



Student Prompt Guide

- Reminds students of the process of strategic reading
- Contains the steps (in clusters).
- States the self-prompts (the questions they should ask themselves).
- Is used to introduce the process of strategic reading before using the worksheet. Then is used to transition from the worksheet.
- The SYR Bookmark is a portable version that can be placed in every book the student is

STRUCTURE Your Reading Student Prompt Guide

ENCOMPASS
SIM 2012

sim.conference.kucrt.org



GETTING



- S** Set a purpose.
Why am I reading this?
- T** Think about the topic.
What do I know about the topic?
- From school, other reading, movies, TV
 - From personal experience
- R** Run through to preview.
What's coming?
- Identify organizational clues
 - Predict content
 - Note reader's aids
 - Find new words



- U** Use strategies while reading.
What tools will help me?
- Visual Imagery
 - Self-questioning
 - Paraphrasing
 - Summarizing
 - Questioning the author
 - Making more predictions
 - Identifying patterns in text
 - Making connections
 - Using visual aids
 - Using organizers
 - Rereading
 - Underlining/highlighting
- C** Check comprehension.
Do I understand?
Clarify confusing parts.
How can I figure it out?
Confirm predictions.
Are my guesses right?



LOOK



- T** Tell your personal reaction.
What do I think and feel?
- U** Uncover critical content.
What are the key ideas?
- R** Review the reactions of others.
How do others think and feel?
- E** Explain your success!
How did strategies help me?



Implementation Highlights

- **Instruction is organized around student outcomes. You move on to the next phase when the student achieves that outcome.**



STRUCTURE Your Reading

Instructional Sequence

	PHASE	OUTCOME
	1. PRE ASSESS <ul style="list-style-type: none"> MIRI – Pre Standardized comprehension measure 	<i>Students demonstrate their current approach to strategic reading and their reading proficiency.</i>
	2. INTRODUCE STRATEGIC LEARNING	<i>Students understand the meaning of strategies and what it means to be strategic.</i>
	3. INTRODUCE STRUCTURED STRATEGIC READING	<i>Students and teacher commit to learn/teach the strategy.</i>
	4. DESCRIBE AND MODEL WITH THE VISUAL DEVICE	<i>Students answer questions about strategic processes before, during and after reading.</i>
	5. ENGAGE STUDENTS IN USING THE WORKSHEET TO STRUCTURE THEIR READING	<i>Students complete an SYR Worksheet as a group with teacher direction.</i>
	6. GUIDE STUDENTS TO RESPOND PERSONALLY IN STRUCTURING THEIR READING	<i>Students complete a worksheet with individualized responses with guidance from the teacher.</i>
	7. CONDUCT GUIDED PRACTICE AT INSTRUCTIONAL READING LEVELS (INCLUDING PARTNER PRACTICE)	<i>Students use the process of structured strategic reading with easier material, saying self-prompts with help from the teacher.</i>
	BEGIN MORE TARGETED WORK ON VOCABULARY FOR UNKNOWN WORDS AND CONTINUE IT THROUGHOUT	<i>Students learn unknown vocabulary words encountered in reading.</i>
	8. PROVIDE INDEPENDENT PRACTICE AT INSTRUCTIONAL READING LEVELS	<i>Students use the process of structured strategic reading with easier material, saying self-prompts without help from the teacher.</i>
ZOOM IN Components	9. TEACH THE SPECIFIC SUB SKILLS AND STRATEGIES FOR SYR	<i>Students increase their repertoire of skills and strategies necessary for strategic reading; for example:</i> <ul style="list-style-type: none"> Strategies for Step 4: <ul style="list-style-type: none"> e.g., <i>The Paraphrasing Strategy, The Visual Imagery Strategy, The Self Questioning Strategy</i> Work on discourse structures of specific disciplines.
	10. TEACH HIGHER LEVEL MANIPULATION OF CONTENT AND RESPONSE IN READING	<i>Students generate a variety of responses to reading products that require critical thinking.</i> <ul style="list-style-type: none"> e.g., <i>creating graphic organizers</i> Work to incorporate writing strategies in written responses.
	11. CONDUCT GUIDED PRACTICE AT GRADE LEVEL (INCLUDING PARTNER PRACTICE)	<i>Students use the process of structured strategic reading with more difficult material, saying self-prompts with help from the teacher.</i>
	12. PROVIDE INDEPENDENT PRACTICE AT GRADE LEVEL	<i>Students use the process of structured strategic reading with more difficult material, saying self-prompts without help from the teacher.</i>
	13. ENSURE THAT STUDENTS KNOW AND UNDERSTAND THE SELF-PROMPTS	<i>Students can say the Prompting Steps and Prompting Questions from memory and explain their meaning within strategic reading.</i>
	14. <ul style="list-style-type: none"> a. FADE THE WORKSHEET or b. GENERALIZE SYR TO OTHER CLASSES WITH THE WORKSHEET (Order may be reversed) 	<i>Students use Prompting Steps or Prompting Questions while reading without the worksheet in the initiating class.</i>
	15. GENERALIZE SYR TO OTHER CLASSES WITHOUT THE WORKSHEET	<i>Students use Prompting Steps or Prompting Questions while reading without the worksheet for other classes.</i>
	16. POST ASSESS <ul style="list-style-type: none"> MIRI – Post Standardized measure 	<i>Students demonstrate that they approach reading strategically.</i>
	17. MAINTENANCE	<i>Students continue to structure their reading in a variety of reading tasks.</i>



Implementation Highlights

- **Cue-Do-Review is the instructional procedure utilized at first; i.e. SYR is taught as a routine.**
 - **The 8 stage learning strategy instructional approach is embedded within teaching, although it is adapted.**



DO

**S
T
R
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C
T
U
R
E**

Describe
Model
Verbal Practice
Guided and
Independent
Practice
Generalize



Implementation Highlights

- **After students learn the overall process you “ZOOM IN” on individual elements to build component skills and strategies; e.g. for students who don’t know strategies to use during reading, you might teach the Paraphrasing Strategy.**

Name: _____

Date: _____ Code: _____

STRUCTURE Your Reading Worksheet



GET IN GEAR



LOOK BACK

1. Set a purpose for reading. *Why am I reading this?* (2)

Assignment:

Other reason:

2. Think al

3. Run through to preview. *What's c*

Identify organizational clues (4)

Predict content (4)

Note reader's aids (2)

Find new words (6)

ZOOM IN
Vocabulary
Instruction



GET IN GEAR

STRUCTURE



GET IN GEAR

GO

4. Use strategies while reading. *Which strategies will help me?* (3)

ZOOM IN

Paraphrasing Strategy Instruction

5. Check comprehension. (1)
Do I understand?

Clarify confusing parts. (1)
How can I figure it out?

Confirm predictions. (1)
Are my guesses right?

6. Tell your personal reaction. *What do I think and feel?* (2)

ZOOM IN

Proficiency in Sentence Writing Strategy Instruction

7. Uncover critical content. (2)

What are the key ideas?

What else?

Complete assignment

What do others think and feel? (2)

9. Explain your success. *How did strategies help?*

**G
O
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K
B
A
C
K**



DISCIPLINE SPECIFIC LITERACY PARAMETERS



What is Disciplinary Literacy?

Unique ways of sharing information, getting people's attention, debating, responding to criticism, reporting facts, and establishing authority in a given subject area.

Members of every profession have their own set of characteristic literacy practices.

Shanahan & Shanahan, 2008



- **Disciplines create, disseminate, and evaluate knowledge using language in different ways.**
- **Each of the disciplinary experts emphasized a different array of reading processes.**

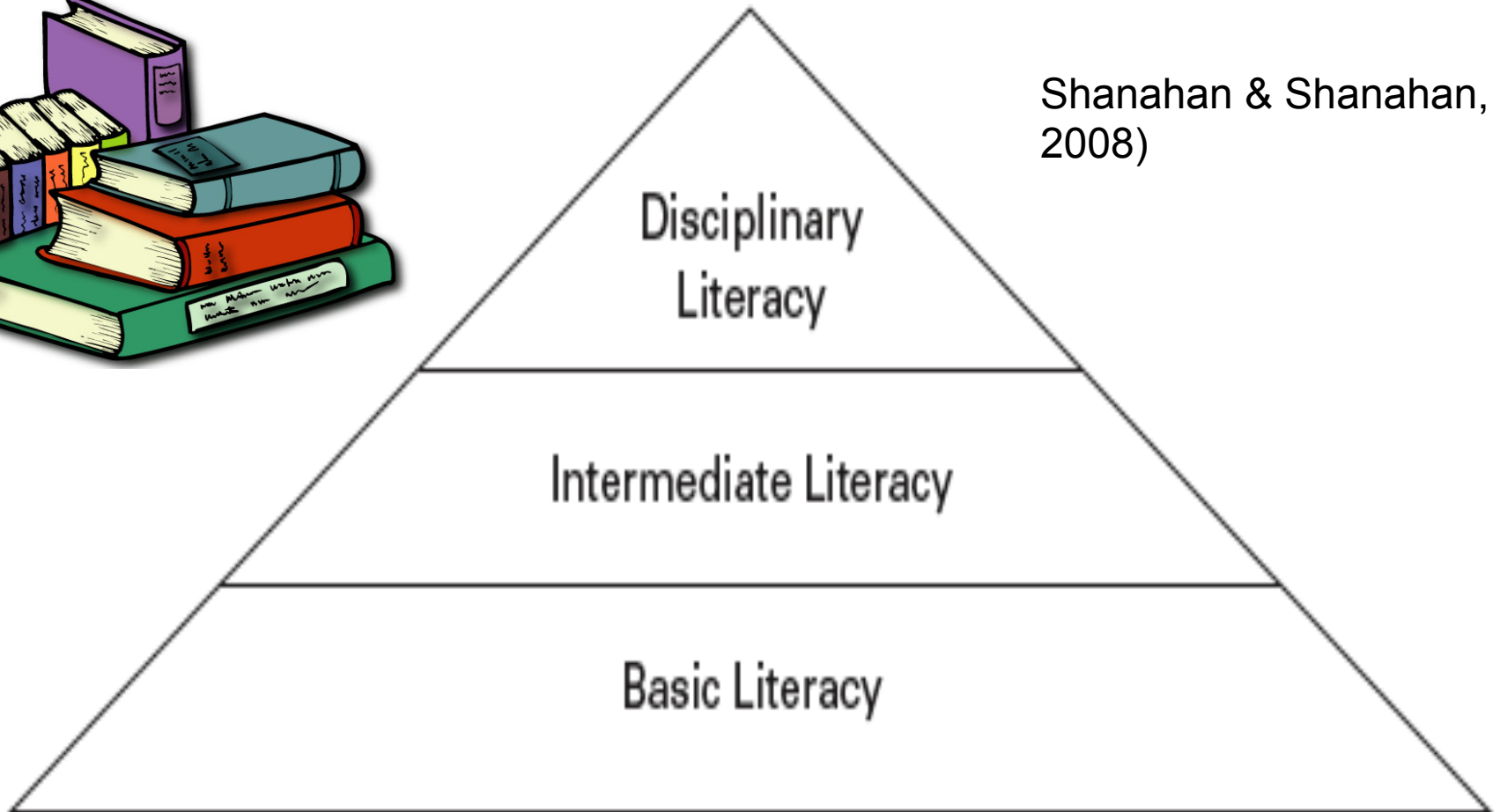




Increasing Specialization of Literacy Development



Shanahan & Shanahan, 2008)





Consider that most adolescents have to engage in the literacy of at least 6 different disciplines in a day!





9:00 a.m.



12:00 p.m.



10:00 a.m.



1:00 p.m.



11:00 a.m.

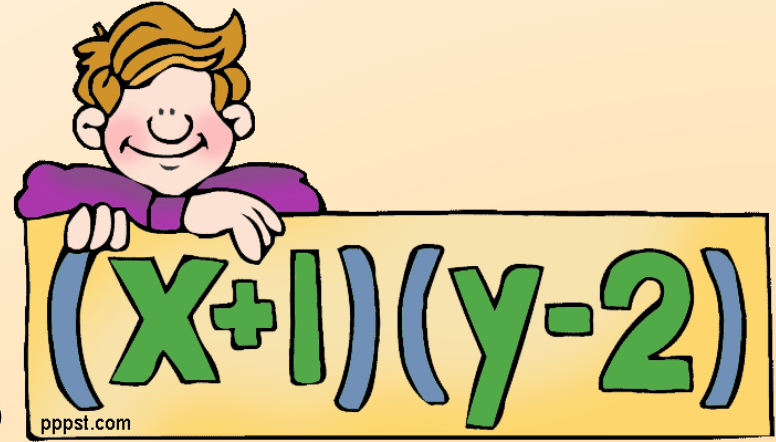


2:00 p.m.





Math



Emphasize rereading and close reading as two of their most important strategies.

- **“‘The’ has a very different meaning from ‘a,’”**
- **Students often attempt to read mathematics texts for the gist or general idea, but this kind of text cannot be appropriately understood without close reading.**
- **Math reading requires a precision of meaning, and each word must be understood specifically in service to that particular meaning.**



Math Vocabulary

- **Specific Meaning**

“Prime refers to a positive integer not divisible by another positive integer (without a remainder) except by itself and by 1.”

- **General Meaning**

perfect, chief, or of the highest grade



History

- **Historians emphasize paying attention to the author or source when reading any text.**
- **They are keenly aware that they are reading an interpretation of historical events and not “Truth.”**



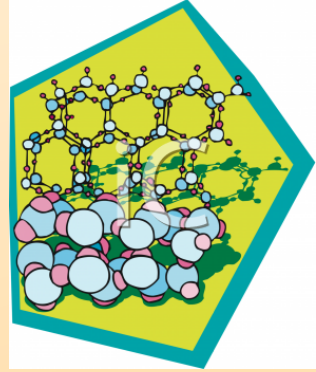


History

- **Zeros in on events rich in human significance**
- **Elaborates, not condenses events**
 - **Uses description, narrative, and logical exposition**
 - **Develops an overarching thesis**
- **Requires analysis of historical sources**
 - **The context in which materials were written matters as much as the literal meaning of the text itself**
 - **who wrote the document**
 - **under what circumstances**
 - **for whom**
 - **why**



Science



- **Scientists are interested in the transformation of information. When reading prose, they visualize, write down formulas.**
- **Different or alternative representations (e.g., pictures, graphs or charts, text, or diagrams) of an idea are essential for a full understanding of the concepts. If a diagram or a chart is on the page, they back and forth between the visual and text.**



Science Language



- **Nominalization is used to create technical vocabulary.**
 - **“salt dissolved” becomes “salt goes through a process of dissolution.”**
- **Nominalization serves to move a phenomenon from the particular or specific to the abstract or general. The term *dissolution* can be used to describe the process that occurs with a variety of substances, and it should be learned apart from its association with salt.**



Science

- **Uses precise description and narrative, meant to compose an accurate record of a procedure and its results**
 - e.g. conducting and reporting scientific experiments,
- **Requires a certain kind of exactness**
 - e.g. It matters whether a reaction occurred at 31.9 degrees Fahrenheit or 32.1 degrees Fahrenheit but not where a particular experiment was done.

Generic Reading Strategies

- **Monitor comprehension**
- **Pre-read**
- **Set goals**
- **Think about what one already knows**
- **Ask questions**
- **Make predictions**
- **Test predictions against the text**
- **Re-read**
- **Summarize**

Discipline Specific Reading Strategies

- **Build on prior knowledge**
- **Build specialized vocabulary**
- **Learn to deconstruct complex sentences**
- **Use knowledge of text structures and genres to predict main and subordinate ideas**
- **Map graphic (and mathematical) representations against explanations in the text**

Generic Reading Strategies

Discipline Specific Reading Strategies

- Pose discipline relevant questions
- Compare claims and propositions across texts
- Use norms for reasoning within the discipline (i.e. what counts as evidence to evaluate claims)



DISCIPLINARY LITERACY ADAPTATIONS TO SYR



Big Question

**Are discipline specific differences
knowledge
skill
or
strategy based?**

STRUCTURE Your Reading



GO
-
DOWN

S **Set a purpose.**
Why am I reading this?

T **Think about the topic.**
What do I know about the topic?

R **Run through to preview.**
What's coming?

- Identify organizational clues
- Predict content
- Note reader's aids
- Find new words

Orients to the kind of thinking and level of detail necessary.

Activates prior knowledge.

Sets up expectations as to structure, content, resources available and unknown words.

STRUCTURE Your Reading



U Use strategies.

What tools will help me?

C Check comprehension.

Do I understand?

Clarify confusing parts.

How can I figure it out?

Confirm predictions.

Are my guesses right?

Prompts a selection of best bet strategies based on material type and personal choice.

Employs self-monitoring and repair.

Harkens back to predictions made in previewing.



Reading Comprehension: Social Studies

- Techniques specific to social studies

- Pre-reading activities
- Context clues
- Vocabulary instruction
- Visualization
- Graphic organizers

(Key, Bradley, & Bradley, 2010; Lunstrum & Taylor, 1978; Massey & Heafner, 2004; Myers & Savage, 2005)

- Must use strategies before, during, and after reading



SYR Adaptations for Social Studies

- Allowed for extended use of visuals
 - Source documents & pictures
 - Graphs
 - Maps
- Vocabulary instruction
 - Journals
 - Bell work with pertinent vocabulary
- Pre-reading activities
 - Background knowledge activation

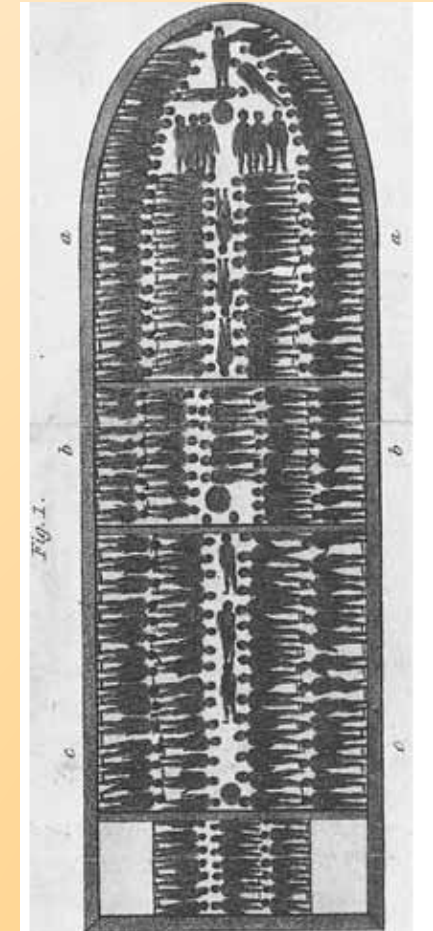
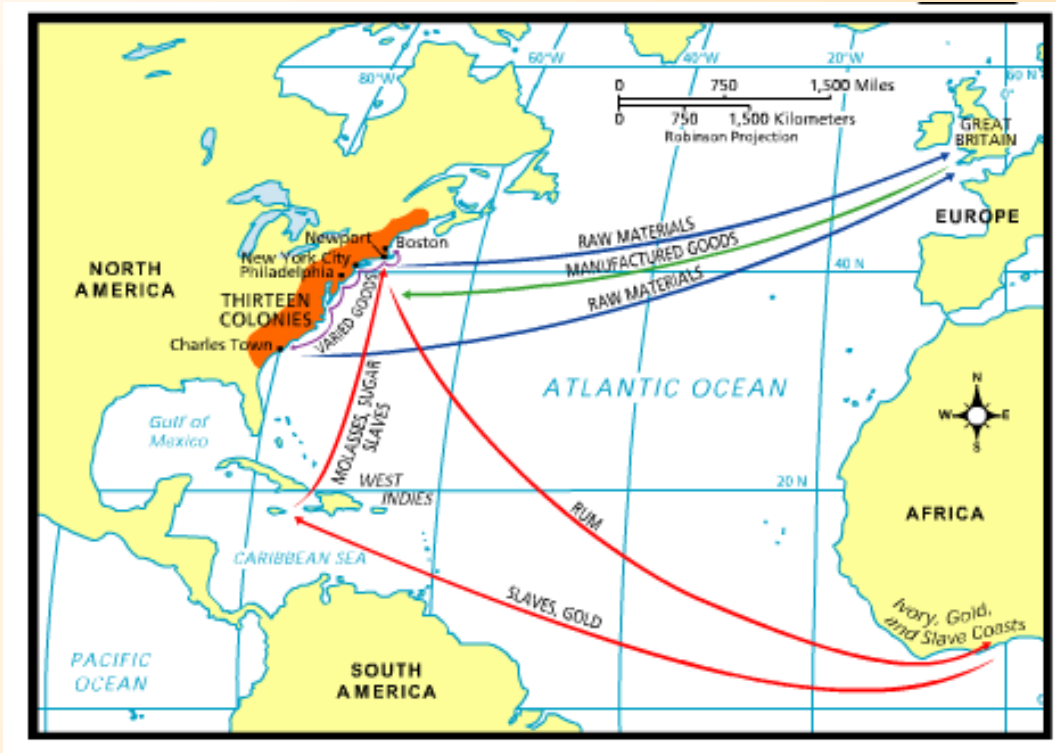


History Example - 8th grade

"The slave trade brought around 10 million Africans across the Atlantic Ocean. This terrifying and often deadly voyage was called the Middle Passage. The journey could last as long as three months. Enslaved Africans were chained by the neck and legs. They lived between the upper and lower decks of the ship, in spaces just a few feet high. Even the sailors remarked on the terrible living conditions enslaved Africans faced on the voyage. 'They [the Africans] had not so much room as a man in his coffin,' wrote one slave ship captain."

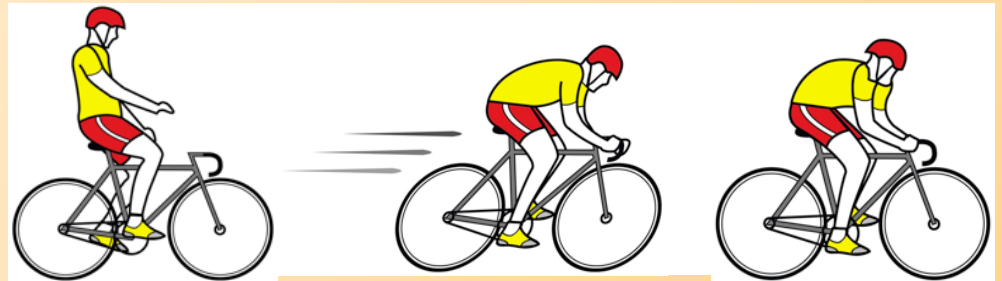


History Example - 8th grade



On slave ships like this, each African was confined in a space only about 16 inches wide and 5½ feet long.

HULTON DEUTSCH COLLECTION LTD./GETTY IMAGES/STONE



EFFECTIVENESS DATA



Academic Gains





Question 1: Academic Gains – Unit 1

	F	df	p	Partial Eta Squared	Observed Power
Unit 1 Pre-test	28.098	1, 88	.000	.243	1.000
Condition	1.914	2, 3	.291	.560	.999
Classroom (Condition)	2.207	3, 117	.091	.054	.069



Question 1: Academic Gains – Unit 2

	F	df	p	Partial Eta Squared	Observed Power
Unit 2 Pre-test	62.272	1, 118	.000	.346	1.000
Condition	49.279	2, 4	.003	.965	.999
Classroom (Condition)	.105	3, 117	.957	.003	.069



Question 1: Academic Gains

- Significant difference found between comparison, experimental, and control conditions for Unit 2
- No difference found between comparison (print) and experimental (digital) conditions for Unit 2



Impact for Students - Academic Gains

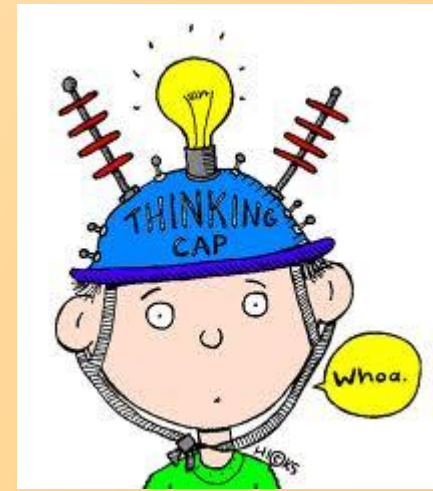
- Significant difference for Unit 2
 - No difference between comparison and experimental conditions
- Ability of SYR protocol to be embedded within instructional content & transfer to academic gains
 - Teacher buy-in!





Metacognitive Gains

- Strategies
- Self-Questioning Prompts





XXXXXXXXXXXX

Date: 4/20/11

Code:

STRUCTURE Your Reading Worksheet



GET IN GEAR



LOOK BACK

1. Set a purpose for reading. *Why am I reading this? (2)*

Assignment: IT'S assign
Other reason:

2. Think about the topic. *What do I know about the topic? (4)*

It's a poem

3. Run through to preview. *What's coming?*

Identify organizational clues (4)
Title
Subtitle

Predict content (4)
Someone Husband

Note reader's aids (2)
picture's

Find new words (6)
recompense
manifest



Name: XXXXXXXXXXXXXX

STRUCTURE Your Reading



GET IN GEAR



LOOK BACK

4. Use strategies while reading. *What tools will help me?* (3)

reread

Lookback

visualize

5. Check comprehension. (1)
Do I understand?

yes

Clarify confusing parts. (1)
How can I figure it out?

I reread the poem to understand.

Confirm predictions. (1)
Are my guesses right?

yes

6. Tell your personal reaction. *What do I think and feel?* (2)

Sweet because it was coming from heart

7. Uncover critical content. (15) (2)

What are the key ideas?

What else do I want to know?

Complete assignment

nothing else

8. Review the reactions of others. *What do others think and feel?* (2)

My neighbor thought it was sweet

9. Explain your success. *How did strategies help me?* (1)

I read faster.

Score: /50



Question 2: Strategy Use – Before Reading

	F	df	p	Partial Eta Squared	Observed Power
MIRI – Strategies Before Reading Pre-test	.303	1, 119	.583		
Condition	91.917	2, 3	.002	.984	1.00
Classroom (Condition)	.342	3, 118	.795	.009	.115



Question 2: Strategy Use – During Reading

	F	df	p	Partial Eta Squared	Observed Power
MIRI – Strategies During Reading Pre-test	2.773	1, 72	.100		
Condition	46.333	2, 3	.006	.969	.995
Classroom (Condition)	.885	3, 118	.451	.022	.239



Question 2: Strategy Use – After Reading

	F	df	p	Partial Eta Squared	Observed Power
MIRI – Strategies After Reading Pre-test	1.843	1, 118	.177		
Condition	106.840	2, 3	.006	.987	1.000
Classroom (Condition)	.120	3, 118	.451	.0003	.071



Question 2: Strategy Use

- Significant difference found between comparison, experimental, and control conditions for all stages of reading
- No difference found between comparison and experimental conditions



Question 3: Self-Questioning – Before Reading

	F	df	p	Partial Eta Squared	Observed Power
MIRI – Self-Questioning Before Reading Pre-test Condition	7.574	1, 120	.007	.060	.779
Classroom (Condition)	6.678	2, 3	.079	.817	.474
	2.777	3, 117	.044	.003	.071



Question 3: Self-Questioning – During Reading

	F	df	p	Partial Eta Squared	Observed Power
MIRI – Self-Questioning During Reading Pre-test	32.499	1, 119	.000	.215	1.000
Condition	54.751	2, 3	.004	.973	.998
Classroom (Condition)	.571	3, 117	.635	1.712	.165



Question 3: Self-Questioning – After Reading

	F	df	p	Partial Eta Squared	Observed Power
MIRI – Self-Questioning After Reading Pre-test	16.687	1, 109	.000	.133	.982
Condition	8.732	2, 3	.060	.859	.555
Classroom (Condition)	1.138	3, 117	.337	.028	.300



Question 3: Self-Questioning

- Significant difference found between comparison, experimental, and control for during reading self-questioning
- Significant difference found between classes for before reading self-questioning
- No difference found between conditions or classes for after reading self-questioning
- No difference found between control classes



Impact for Students - Strategy Use

- Significant difference in strategy use for all phases of reading
- No difference found between comparison and experimental groups
 - Digital or paper
- Adds support to line of research documenting increase strategy use when explicitly taught
 - General & domain specific strategies used



Impact for Students - Strategy Use

- Noted use of strategies with digital text – more so than comparison group
 - Underlining
 - Highlighting
 - Notes in margins
- Enlarging pictures for closer examination
- Teachers pleased with increased engagement



Impact for Students - Self Questioning

- Significant differences between classes found for before reading self-questioning
 - Control classes found to be different from comparison and experimental
 - Comparison and experimental classes not found to be different
 - No difference between control classes



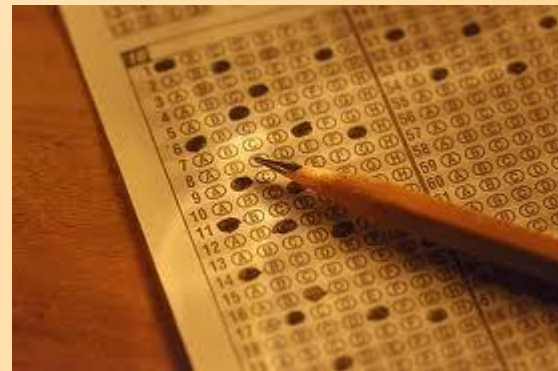
Impact for Students - Self Questioning

- Comparison and experimental classes found to ask more strategic questions before reading than control classes
 - “Why am I reading this?”
- Significant differences between comparison, experimental, and control conditions found for during reading self-questioning





Reading Gains Comprehension





Question 4: Reading Comprehension

	F	df	p	Partial Eta Squared	Observed Power
DRP Raw Score Pre-test	215.442	1, 19	.000	.918	1.000
Condition	.948	2, 3	.480	.387	.113
Classroom (Condition)	3.588	3, 117	.016	.084	.779



Question 4: Reading Comprehension

- No difference found between comparison and experimental classes
- Significant difference found between comparison & experimental with 1 control class
- No difference found between control classes



Impact for Students - Reading Comprehension

Practically significant qualitative observations with intervention groups:

- Strategies used in comparison and experimental conditions
 - Highlighting, underlining, notes
- Self-questioning used in comparison and experimental conditions
 - Self-talk observed



POST ORGANIZER



Guiding Questions

- **How can STRUCTURE Your Reading be adapted to address disciplinary literacy?**
 - **Each cluster (before, during and after reading) has opportunities to focus on knowledge, skills or strategies specific to a discipline.**
- **What evidence exists that doing so works?**
 - **Dr. Malani's study affirms the impact of SYR on social studies acquisition and strategic reading processes.**



What questions do you have?