Text Comprehension: Facilitating Active and Strategic Engagement

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The Plan
1. Text comprehension processes & expectations
2. Effective instruction & role of SLP
3. Teaching comprehension strategies
   - Teaching tools 
   - Learning tools
4. Specific instruction procedures & texts
5. RISE+ and contextualized skill intervention

Reading Comprehension

• The process of simultaneously extracting and constructing meaning through interaction and involvement with written language (RAND, 2002, p. xiii)
• Active nature of comprehension
• Beyond silently reading a printed page to meaning-making through spoken interactions around print
  – Listening to others read
  – Having book discussions
  – Building on each other’s contributions
  – Talking about written-style sentences and discourse,
  – Referring to texts to find information

Factual, Inferential, and Applied Understanding

On, Between, Beyond

• Understanding the author’s stated message
• Interpreting the message’s underlying meaning and implications
• Applying the message in meaningful ways

Comprehension > The Person

Reader
Abilities, knowledge, effort, attitude

Activity
Print size, lighting, distractions... Purpose of reading

Text
Topic, level of detail, discourse structure
(E.g., Fry’s readability index of sylls & sents per 100 words)

Reading Comprehension w/o Decoding?

Ks will, in group reading activities, for literature and informational text, with prompting and support:
• Ask and answer qns about key details in a text
• Retell familiar stories including key details
• Identify the main topic and retell key details
• Describe the connection between two individuals, events, ideas, or pieces of information
• Compare and contrast adventures and experiences of characters in familiar stories

(Common Core, 2010)
The “Text” Part?

- print, sort of
- discourse, sort of
- carrier of communication, sort of

- Main body of printed or written matter on a page
- Prose: sentences connected into paragraphs and passages, such as in books, essays, and reports
- Document: noncontinuous words and phrases, e.g., forms, websites, pamphlets
- Multi-modality: plus spoken words, diagrams, photos...


Effective Instruction Procedures

- 7 teaching procedures with firm scientific basis
  1. Cooperative learning
  2. Answering teacher questions
  3. Graphic organizers
  4. Story structure analysis
  5. Comprehension monitoring
  6. Question generation
  7. Summarization
- Multiple procedures > any single procedure
- DK most effective amounts or combos

Successful Features of Instruction

Kamil et al. (2008) systematic research review, 8th grade:
1. Explicit vocabulary instruction (Strong)
2. Direct and explicit comprehension strategy instruction (Strong)
3. Opportunities for extended discussion of text meaning and interpretation (Moderate)
4. Increasing student motivation and engagement in literacy learning (Moderate)
5. Plus, for struggling readers, tx (Strong)

Strong = well-designed controlled trials with no contradictory evidence
Moderate = multiple studies and no contradictory evd, but features that limit generalization or causation

Fundamental Change in Teacher Role

OLD: Task director & Students answering content qns

NEW:
1. Qns on text structure, links to background knowledge, encouraging student qns
2. Giving up sustained control, moving students into independence
3. Teacher as cognitive model: when, why, how, not just what

The State of Instruction

Fundamentals of effective teaching methods known BUT:
- How much of what when for whom?
- How to support comprehension of challenging texts
- How to teach and assess inquiry-based learning?
- How to surmount structural and behavioral obstacles to effective implementation?

Continuing concern with infrequency and weakness of reading comprehension instruction in real classrooms
(Adams, 2011; Calkins et al., 2012; Common Core, 2010; NRP, 2000; RAND, 2002; Kamil et al., 2008; Shanahan et al., 2010)
Development of Reading

1. Letter knowledge, print concepts, literate language, holistic word recognition
2. MOM vs. BLEEP
   - Basic decoding and comprehension
3. Fluent word recognition, strong comprehension
   - Gaining new knowledge
   - Hopefully, actively and independently achieving learning goals
   Fourth Grade Slump (Chall, 1983)?

Challenges to Teaching Disciplinary Literacy

• Consumption (and production) of disciplinary texts
  1. Deep knowledge of topic
  2. Knowing communication conventions of discipline
  3. Having clear purposes for reading task
  4. Being in control of skills & strategies for purposes
• Challenges to teaching disciplinary literacy
  - I am not a reading teacher
  - I need to get through the curriculum
  - The students need to know the basic content before this high level stuff
  - How do I do it? I am not a historian or a chemist

And Multi-Modal Text Comprehension

• Text as communication carrier in any modality and form
• Beyond written word to visual, sound, and touch with computers, labs, demos, projects, experiential learning...
  - Purposeful integration, not just adding fun activity
• Alvermann and Wilson (2011): middle school unit on soil erosion
  - Connections from outdoor observations to science textbook, maps, and photos of dust bowl in 1930s
  - Learning to comprehend and demonstrate concepts across modalities in ecological disciplinary manner
  - Embedding metacognitive processes, comprehension strategies, and language flexibility

American Adult Literacy Realities

NAAL, 2003: >19,000 U.S. adults in homes and prisons on prose, document, and numerical literacy
• Basic = Locate info, make low-level inferences, integrate easy info in short, common texts (medic instruction, jury pamphlet, TV guide)
  - 14% below basic; of 14%, 45% HS degree or GED
  - 5% of 16-18 yrs, 25% of >25 yrs (also 1992 NAAL)
• Proficient = Synthesize and analyze complex prose and docs (compare views in editorials or interpret table of blood pressure, age, and physical activity)
  - 5% of adults with high schl and GED
  - 33% of college graduates

5th Attribute: Intervention

For students with low ach or LD:
• Strong evidence for intensive, explicit, individualized tx by trained specialists
• Substantial improvement if struggling sts ided, strengths and weaknesses systematically assessed, and intensive individualized interventions provided
• Consistent sizeable improvements from txs of mainly teaching reading strategies
• Older students > 3rd-6th graders from meta-cognitive approach

That means SLPs

1. Resource teachers:
   - Curricular knowledge and daily extended contact with students
   - For assistance in content instruction, rich vocabulary learning experiences, and extended meaning-making discussions about readings
2. SLPs:
   - Curricular freedom, underlying skills focus, problem-solving orientation, teaching through talking
   - For explicit, individualized, scaffolded instruction of skills and strategies connected to classroom

BOTH must connect to subject area teachers
What Should SLPs Do?

1. Improve language skills
   - Vocabulary breadth and depth
   - Syntax and grammatical morphology
   - Narrative and informational discourse
   - Pragmatics of what to use when and how

2. Improve metalinguistics and language-related skills
   - Word analysis
   - Selective and sustained attention
   - Memory and word retrieval
   - Setting, reviewing, and achieving learning goals

3. Comprehension strategies

Comprehension Strategies

Awareness and optimization of mental processes to improve comprehension and learning of academic texts

- Actions selected deliberately to achieve particular goals
- Heuristics: Short-term, general problem-solving procedure that highlights information and guides attentional focus

- Strategies (and skills) can be applied for many reasons including expertise, repeated practice, compliance with directions, luck, and naïve use


Strategic Reading

Logistic regression allows one to predict a discrete outcome such as group membership from a set of variables that may be continuous, discrete, dichotomous, or a mix. Because of its popularity in the health sciences, the discrete outcome in logistic regression is often disease/no disease. For example, can presence or absence of hay fever be diagnosed from geographic area, season, degree of nasal stuffiness, and body temperature?

What does logistic regression do?
What is the main idea?
Why is logistic regression popular in the health sciences?


Before, During, and After Reading

1. : Think about what is known, predict text content, look for organizing concepts, id plan for rdg...
2. : Maintain reading purpose, note important info, pause and paraphrase, integrate new with known info, notice lapses in understanding, re-read to clarify, manage time...
3. : Recall important ideas, decide what to recall, recognize ambiguous ideas and try to clarify, re-read to fill in gaps, plan next-step study strategies...

Try reading to learn from a difficult text and reflect on your own cognitive processes

Strategic Use of Skills and Strategies

Knowing When to Use What Strategies Why and How
And when to just sit back and read…

Aim students toward:
- Frequent skillful reading and listening fluent, automatic, easy, and enjoyable
- Occasional strategic reading and listening Effortful but worthwhile for learning and change

Aiming for all our students to be strategic and skillful readers and listeners for learning and enjoyment

Strategic Reading is Hard --

- August et al., (1984): Strong & weak 5th gr, story missing a pg: altho more skillful slowed rdg & looked back, half children in both groups did not report a problem and both made non-warranted fill-in inferences  (August et al., 1984)
- Garner & Reis (1981): Strong & weak 4th-10th gr on look-back for open-book test qns: altho older strong better, many of both groups did not look back when needed
- Paris et al (1991, p. 621): Even 12-year-old good readers do not detect a large number of errors and inconsistencies inserted into meaningful text

Was hard and is still hard…
Text Comprehension: Facilitating Active & Strategic Engagement

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Skills & Strategies: Two Sides of the Coin
- Strategy: Conscious, deliberate, effortful use of a mental action
- Skill: Unconscious, automatic, fluent use of a mental action

More Specifically
- Specific prompts with set wording
  - About text ideas (e.g., “What is the main idea of this paragraph? What is the difference between this idea and the preceding idea?”)
  - About text structure (e.g., “What was the problem in this story? Can you tell where in the story the problem was resolved?”)
- Self-monitoring speed and re-reading parts
- Less beneficial is having students generate qns
  - Based on perceptions of what is important
  - Based on what they think that a teacher might ask
  - Crafted to the content of each text (e.g., Mason, 2004)

Components of Effective Strategy Instruction
1. Explicit teacher modeling,
2. Practice with feedback
3. Adjustment of support to the learner level
4. Having students maintain mindful engagement

Swanson & Hoskyn (1998): Syst rev tx res for LD sts, 3 of 20 tx components explained almost all common variance in outcomes:
- a. Controlling task difficulty
- b. Using small interactive groups
- c. Having students use specified language or format for strategy qns

Selecting Tx Strategies (or Skills)
NRP (2000), (Kamil et al., 2008):
- 4 types of reading strategies with firm scientific basis:
  1. Comprehension monitoring (readers being aware of their own understanding of the text)
  2. Question generation (readers asking themselves questions about the text)
  3. Summarization (readers integrating ideas from text)
  4. Paraphrasing (readers restating a sentence in their own words)
- Plus word learning strategies of using context cues and reference skills

A Simple Memorable Strategy Mnemonic: TWA Checklist

<table>
<thead>
<tr>
<th>When to Think</th>
<th>Strategy</th>
<th>Done?</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Think before reading</td>
<td>The author’s purpose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What you know</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What you want to learn</td>
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<tr>
<td>W</td>
<td>While reading think about</td>
<td>Reading speed</td>
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<tr>
<td></td>
<td></td>
<td>Linking what you know</td>
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<td></td>
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<td>Rereading parts</td>
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<tr>
<td>A</td>
<td>After reading think about</td>
<td>The main idea</td>
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<tr>
<td></td>
<td></td>
<td>Summarizing information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What you learned</td>
</tr>
</tbody>
</table>

Mason (2004) and Mason et al. (2006)

Cognitive Modeling
- Demo thinking processes during purposeful reading so sts see when, why, and how, not just what of reading
- Preparation for modeling
  1. Consider text from student perspective
  2. Check text matches target strategies
  3. Plan points in text to model (e.g., This paragraph isn’t clear, I will reread it for the main idea)
- Doing the modeling
  1. Before sts read, demo how to read for X purpose
  2. During reading, demo at designated stopping points or when students have difficulties
  3. After reading, review performance and demo more effective use of the strategies
Content + Strategy Instruction

McKeown, Beck, & Blake (2009) compared content vs strategy instruction

- Six 5th grade classrooms for school year in 3 conditions:
  1. Content: sts read passage aloud and discuss what author trying to say at key pts (e.g., when major character introduced, important event occurred, or confusing statement made)
  2. Strategy: Learn to summarize, predict, draw inferences, ask qns, and monitor comprehension plus understand story content
  3. Basal text condition: Teacher asks comprehension about content from basal text program

= Strategy and Content Overload

Results of McKeown et al. (2009):

1. Big improvement for all conditions, incl comprehension monitoring and recog of better summaries and inferences
2. For familiar and new text knowledge probes, responses better for content condition

- All 3 approaches encouraged active comprehension and mental discourse templates
  - BUT strategies condition had split focus
- Teach strategies on short texts separate from main lesson, then intro in content lesson in natural opps

SLPs!

Quality SLP Tx: RISE+

Repeated Opportunities
Intensity of scheduling
Systematic structural and interactive support
Explicit Skill Focus
+ Learner factor

From Instruction to Intervention

Regular → Supportive → Intervention

- Few ⇒ Some ⇒ Many
- Class ⇒ Group ⇒ Individual; Occasional ⇒ Regular ⇒ Frequent; Short ⇒ Middling ⇒ Long
- Little ⇒ Some ⇒ Lots
- Implicit ⇒ Explicit ⇒ Meta

+ Passive & minimal ⇒ Motivated attentive ⇒ Self-directed, sustained engagement

Explicit Skill Focus

Explicit attention and modification to 1-3 target skills (as conscious strategies)
- Known by both SLP and student
- Avoid, assist, or ignore non-target skills

So in reading a science text, if summarization is the target,
  1. Avoid difficult content
  2. Assist with word decoding
  3. Ignore sentence structure errors

Repeated Opportunities and Intensity

- Intensively teach through small groups a few tx objectives several times a week
- With Repeated opps for learning and practice in session and in classroom
  - Tx obj: X will use approach to reading based on need: Recall all for test vs. Search for key details for project
  - On 10 short passages, tell purpose and have student id approach, perform it, get info, explain how read, self-evaluate
  - Repeatedly across sessions with lots of turns for each student
### Structural and Interactive Scaffolds

1. Structural = Choosing or modifying meaningful text
   - Short well-structured expository selections
   - Extracted from a single larger whole
   - Requiring a minimum of background knowledge
   - With decoding problems circumvented

2. Interactive = Dynamic moves in tx
   - Differential linguistic, response, and regulatory support
   - Matched to child need & task difficulty
   - Cognitive modeling of process
   - Systematic handover for internalization of strategies
   - Aim of student internalization and independence

### Small Group Scaffolding

- Better than classroom or 1:1 to “think aloud” about reading strategies and comprehension processes
- Thru talking with each other about the reading
- SLP embedding strategic qns into conversations
- SLP scaffolding children’s responses

- (Palincsar): Sts take turns being teachers and lead each other in practice sessions
- With assistance, “student-teachers’ lead process
- Asking compreh qns of other students
- Helping them find the answers
- Evaluating their answers

### STOP – Whose Strategy Is It?

- **Teaching tool vs. Learning tool**
  - Grouped as “instruction strategies”
  - Who is using the strategy?

- Many tx studies for younger sts do not systematically scaffold to independence

- Tx research for older sts typically includes some guided and independent practice, but instruction and outcome measurement rarely address use in the classroom

- NRP (2000), Kamil et al. (2008), Shanahan et al. (2010)

### Teaching Vs Learning Strategies

- Many effective teaching strategies/tools/procedures
  - Pose qns to sts after reading a story
  - Place sts in cooperative learning groups
  - Lead sts in creating graphical organizers
  - Lead sts in stopping to self-qn compreh before, during, and after reading or listening to acad texts

- Versus learning strategies to improve own compreh before, during, and after reading or listening to acad texts
  - Sts explicitly and systematically taught to stop and ask themselves a qn or map a main idea & details as needed
  - With lots of practice with decreasing support
  - And attn to internal motivation that habit is worthwhile

### The Aim: Purposeful Strategic Reading

- Bazerman (1985): Physicists reading physics
  - 7 physicists perusing journal articles
  - Told to read aloud as they read
  - Results
    - Discarded 3/4 of the articles
    - Considered titles, authors, and abstracts re: own research interests and source labs
    - Read selectively; jumping around, looking for specific features or surprising elements
    - Constant judgments re: value of reading material versus time and thought investment
    - Articles set aside for reflection and a second reading

### The Challenge of Student Ownership

- Chan and Cole (1986): 11-yr-old RD, 4 tx sessions:
  1. Ask selves and a robot content qns
  2. Underline interesting words with a fluorescent pen
  3. Explain to the robot why these words were interesting.

- Control: Sts reread story to robot in case robot missed parts the first time

- Results: Sts improved compreh and recall vs control
- BUT 1 day post tx, for stories with no directions
  - NONE used explaining and qn strategies
  - Two-third used underlining strategy a bit
Specific Strategy Instruction

Text Structure Awareness

Attend to structure of a narrative or expository text
- Use structure to guide understanding
- Discourse analysis with graphical support
- Helps improve reading comprehension
  - Identify story grammar components
  - Separate out essential from trivial details
  - Work through the logical relations of a text
  - Organize and integrate content into a coherent mental structure

NRP (2000), Kamil et al. (2008)

Narrative Text Structure

Crabtree et al. (2010)
- Exp’tal multiple baseline design with 3 high schl LD sts
- Tx: Sts learned to id elements of setting and episode,
  - Sts stopped at designated pts in their reading and
  wrote elements in a structured guide
- Control: Baseline data on read stories and answer
  content qns
- Results:
  1. Improved immediate story recall and compre
  2. Maintained correct use of guide w/o prompts to use
  3. Sts reported they were likely to use it again

Expository Text Structure

Armbruster et al. (1991)
- 4th and 5th grade sts
- Tx: Teacher-directed and cooperative group activities
  - Sts analyzed social studies textbook passages
  - Using cause-effect, problem-solution, and compare-
   contrast frames
- Control: Teacher-led content-focused qn-answers
- Results: Better recognition and recall of information

Scanlon et al. (1996): Similar benefits for middle schl sts
  with LD in inclusive lessons by history and civics teachers

Text Preview

- Teach sts to intentionally become familiar with text
  organization of rdg materials and how to locate info
  - Chapter titles and section headings
  - Abstracts, opening paragraphs, and conclusions
  - Preface, TOC, index, and glossary
- Especially useful for informational texts:
  - A lot of discrete information units
  - Vary considerably in organization and reader
    friendliness
- Applicable to electronic sources
  - Understand organizational structure
  - Notice menus, navigational tools, and info location

Look Backs

- Companion skill to look ahead is look back
  - Awareness of gap in comprehension
  - Efficient (and permissible) text search procedure
  - Sts rarely use spontaneously
  - Process
    1. Examine qn for if answer “from your head” or “from
       the text”
    2. Skim text to find most likely section for info
    3. Notice why other sections not good candidates
    4. At relevant section, note potential from the heading
    5. Slow down and read each sentence carefully for
       needed info
Garner et al. (1984): Brief tx in lookbacks
• 24 9-13 year olds, ok decoders, poor comprehenders
• Control: taught main idea & summarization strategies
• 5 days post tx: I am going to ask you to read a short article. You will read it slowly. I will ask you three questions about the article when you’re done reading.
  – 1 text print side down and 1 print side up
  – Print up text, if no look back: You can look back at any part of the article to answer the qns
• Results:
  – Similar accuracy of simple recall qns: 31% and 33%
  – In-text qns: tx 70% use vs control 22% use; correct 72% vs 31%
  – Tx looked back on own, flipped text over, asked if look back ok; control only looked in text-up & after cueing

Text Comprehension: Facilitating Active & Strategic Engagement

Summary Composition Procedures
Teaching sts to periodically stop and summarize paragraphs, sections, chapters, and articles
1. Gist: Reading a paragraph one line at a time and gradually composing a single long sentence that encapsulates the ideas expressed in each line
2. Rule-governed: Systematic procedures for determining topic, supporting, redundant, and irrelevant statements, then building into coherent summaries
3. Hierarchical: Use chapter, section, and subsection headings to create summaries of large pieces of text

But What’s a Main Idea??
• Summarization procedures hinge on iding a main idea
• Wong et al. (1986), in a multiple baseline design, investigated teaching eight 7th LD graders to compose well-structured summaries
• Sts told to underline and paraphrase the main idea of simple paragraphs ided random sentences and became frustrated

Mr. Brown was getting angry. His face was bright red. His pupils seemed to enlarge in size suddenly. His body began to shake. His voice was becoming louder and louder.

Text Comprehension

Progressive Practice in Summarizing
• Paragraphs in which position of topic sentence varied
• Paragraphs with two main ideas
• Double paragraphs
• Paraphrasing main idea statements
• Adding important detail sentences
• Applying summarization skills to classroom social studies texts

Text Comprehension

Results of Summarization Instruction
Wong et al. (1986)
• 1 mth for sts to paraphrase main ideas
• After 3 mths of 30-min/wk, noticeable improvement on summarization and recall of social studies passages
• 6/8 maintained use one month post-tx and substantial transfer to general science texts
  – 2 quickly learned to summarize and apply, maintain use, and make mods indicating ownership
  – 2 showed little motivation, slow learning, and lack of retention; fundamental disengagement with acad learning beyond study

Mapping the Main Idea
• Cover main idea box
• Do other sentences made sense without the main idea?
• Who are the sentences talking about?
• Whose voice is getting louder?

Text Comprehension
Mapping Implicit Main Ideas

Text Comprehension

Summarizing Disciplinary Document Text

- Extract main idea from images, headings, bulleted lists, and isolated statements
- Shanahan and Shanahan (2008)
  - Chemistry: Chart of substances, properties, and reactions
  - Math: Chart listing one column as “big idea,” next as formal definition, followed by formula, and example.
  - History: Chart of who, what, where, when, how, and why for each event + relationship bet events

Text Comprehension

Managing Text Difficulty

Challenging enough to need strategies but not for struggle with basic comprehension

- Avoid decoding issues
  - Independent decoding level of student
  - Shared reading
  - Familiar texts
  - Listening to texts
- Shared vision
  - Underlining and marginalia
  - Multiple copies
  - Enlarged text on computer monitor
  - Sit on same side of table with student

Text Comprehension

Being Strategic about Strategy Tx

1. Choose a few simple strategies with obvious benefits easily learned and used
2. Observe lessons, examine assignments, and talk with teachers to id strategies that make sense
3. Give learning and practice opps in structured activities separate from classroom lessons
4. Move from short, well-structured texts to passages with more varied structure excerpted frm classroom texts
5. Focus on strategy use without pressure to demo mastery of new curricular material

Text Comprehension

Flying From the SLP Nest

6. When sts at minimal support, move into collaborative, sheltered content learning situations (e.g., Resource)
7. Collaborations move to subject area teachers with repeated opps, previews and checkups during reading

- Habits of mindful reading
  - Match purpose to way of reading
  - Stop to ask selves qns (and answer)
  - Paraphrase and summarize
  - Monitor and seek repair for comprehension

Text Comprehension
Progress Data on Product & Process

Student may improve on no. correct responses
- From independent use of tx strategy
- From topic knowledge thru other experiences
- From increased general awareness
- From own different compre strategy

Seek data on use, level of support, and effectiveness:
1. Text comprehension scores
2. Observe st’s actions & notes during reading
3. Student think-alouds during reading
4. Interview student after reading

The Part of RISE+
Motivated, attentive, and engaged

Guthrie et al. (2013) statistical path for rdg instruct, motiv, engagement, ach for 1,000 gr7 in CORI and trad instruct
Confidence in capacity to succeed, interest in science reading, and tools for success (e.g., strategies & accessible texts) ➔ attitudes toward academic learning and challenging rdg ➔

Involvement or “Buy-in”

1. Attention: Arousal and alertness; orient and respond; search and spotlight; select, sustain, and allocate
Looking for action, for learning, for liking (Hogarth et al. 2010)
2. Motivation: Reasons and attitudes toward skill, activity, and effort involved in learning (Guthrie, Klauda, & Ho, 2013; Wigfield et al., 2008)
- I enjoy reading. This task is hard but it is important. I believe I can succeed.
- I hate reading. This reading task is too hard. Why am I doing this? How can I get out of this?
3. Engagement: Participation in activity, behaviors during and attitude after; being “in the flow,” “in the zone”
The key to life satisfaction 😊

Topic Effect on Reading Achievement

- Domain expertise can trump reading skill (Recht & Leslie, 1988; Yekovich et al., 1990)
- Poor readers on general comprehension tests (e.g, SAT) = Can achieve as well as good readers
  - On recall, but also analysis, synthesis, and inferencing qns
  - Tested on passages about high-knowledge topics (e.g., baseball or football)

Situational Interest

- Stimulating situational interest in academic topics that do not interest students
- Oakhill and Petrides (2007) compared fifth grade boys and girls on passages they had rated as higher and lower interest
  - Boys preferred piece on spiders
  - Girls preferred piece on child evacuation during war
  - Boys: 60% correct on the high-interest-passage qns and 38% for the low-interest ones
  - Girls: 62% for both high- and low-interest passages

Guidance & Ownership

- To increase sts effort for text recall & compreh (Graham & Golan, 1991; Gronick & Ryan, 1987)
  1. Explain effort for good outcome and allow to decide effort > emphasis on working hard and good grades
  2. Errors treated as growth opps > Errors as failure
  3. Informational feedback > Controlling feedback
- Having some say in tx:
  - Identify learning goals
  - Select tx topics and materials
  - Identify obstacles and supports
  - Determine outcome measures
  - Collect data and evaluate own progress
  - Judge what is “good enough”
Putting It All Together: Strategies, Content, and Engagement – and Tx

Comprehension skills & strategies, cognitive modeling, multimodal texts, cooperative learning, connecting strategy to subjects, extended literature discussions, inquiry-based and experiential learning...

Concept-Oriented Reading Instruction

- Concept-Oriented Reading Instruction (CORI) (http://www.cori.umd.edu) (Guthrie and colleagues)
- Systematically organized around:
  1. Student motivation and engagement
  2. Scientific concepts and inquiry skills
  3. Reading strategies taught within content reading
  4. With differentiated learning support

CORI Motivational and Concept Features

<table>
<thead>
<tr>
<th>Choices</th>
<th>Students given some control over texts, subtopics, and writing activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Hands-on activities and connection of texts to theme and experiences</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Students collaborate in pairs on strategy selection and practice</td>
</tr>
<tr>
<td>Thematic Units</td>
<td>Overarching theme linked all reading and writing activities for deep, interconnected knowledge</td>
</tr>
<tr>
<td>Success</td>
<td>Students read trade books related to theme at their level</td>
</tr>
<tr>
<td>Diverse Texts</td>
<td>Concepts learned and linked through science, poetry, novel, and legend books</td>
</tr>
</tbody>
</table>

CORI Learning Strategies

<table>
<thead>
<tr>
<th>Word Fix-Ups</th>
<th>Re-read, Use a picture, Chunk word, Discuss with partner, Draw it, Look it up, Read ahead, Read aloud</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentence Fix-Ups</td>
<td>Fix-up strategies applied to confusing sentences</td>
</tr>
<tr>
<td>Passage Analysis</td>
<td>ID main idea versus details, ID how details link to the main idea</td>
</tr>
</tbody>
</table>

CORI Features for Low Achievers

<table>
<thead>
<tr>
<th>Texts</th>
<th>Informational and narrative trade books at a range of reading levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concepts</td>
<td>Fewer concepts taught at a time, with more graphics and less print</td>
</tr>
<tr>
<td>Writing</td>
<td>Student charts and reports required less writing</td>
</tr>
<tr>
<td>Fluency</td>
<td>Extra guided practice in fluency and decoding skills</td>
</tr>
<tr>
<td>Strategies</td>
<td>Fix-up strategies taught at a slower pace with more modeling</td>
</tr>
</tbody>
</table>

CORI Investigation

Guthrie et al. (2009), six gr5 classes

- 12 wks of 90 min daily, plus more for low achievers
- Theme of animal-plant interactions in eco communities
- Comparison: 3 gr5 classes, disconnected lessons, decoding, fluency, basal readers, story writing, and independent reading on diverse topics
- Results: Tx > Compare for typical and low-ach
  - Attitude toward learning
  - Reading comprehension
  - Content knowledge
  - Word recognition students
  - Improvements in later reading and learning activities
The SLP Version of CORI: Tx thru Units & Projects

Embed tx skill goals in meaningful activities thru whole-part and RISE+

Start with purposeful, complex whole activity with several tx objectives
1. Move to contrived part tasks for explicit focus, systematic support, and repeated opps for each tx skill
2. Back to purposeful activity to integrate tx skills learned in parts into a whole
3. Then do it again…

“Staying on Topic” in Tx

- Adams, (2011)
- 
- 
- 
- Including never-seen-before new words

- knowledge, vocab, & compre → raise SATs

So use curricular links, projects, and thematic units in tx

RISE+ and Projects

R: Repeated opps for main ideas and details in a meaningful activity
I: Intensively practice summarizing goal while note-taking in small tx groups
S: Scaffolding reading of sources and building presentation with aim of increased student independence
E: Explicit skills of whatever SLP selects to highlight and systematically scaffolded in repeated opps
+: Motivation and engagement through ownership of project and skills

Debating Dogs in Trucks

Comprehension strategy tx goals, e.g., summarizing, qning, and clarifying…
Features
- Extended text comprehension & analysis project
- Specific skills in meaningful, motivating product
- Suited to groups & collaboration with resource teacher

Oral Debate Tx Project

1. Determine the main points from texts provide
2. Evaluate and agree on main points
3. Develop a position statement
4. Locate and list points that support position
5. Evaluate arguments on fact versus opinion, credible versus doubtful, relevant versus tangential
6. Set debate etiquette
7. Prepare the scripts
8. Practice the presentation
9. Carry out debate
10. Reflect on debate and skill performance

For more info, see Ukrainetz & Ross (2006)

Student Research Projects

Purposeful activity with explicit skills taught and learned in the composition process
- 8-12 sessions
- Small groups of a range of grades
- Bulleted notes involve minimal writing
- Oral language in composition process and presentation
- Strategy practice embedded in reading sources
- Media possibilities: Research poster, podcast, Wiki report
- Setup: Give short list of research topics around theme
- ID sources in advance: websites, books, magazines
- Make timeline and project guide for “What do I do next?”
- Remember to keep focus on tx skills thru RISE+

For more info, see Ukrainetz & Ross (2006)
Research Project: Method

Students will...

1. Identify a topic
2. Determine what is known and not known
3. Use K-W-L+ to develop concept map
4. Use concept map to identify questions
   - What do I already know about my topic?
   - What else do I need to know?
   - What do I want to find out?
   - What else am I wondering about?
5. Generate keywords for information search
6. Determine location and how to access predetermined, limited number of sources

Comprehension Tx – In Sum

• Active, purposeful engagement with meaningful texts
• Teaching comprehension strategies for before, during, and after reading
• Supported toward independent, habitual use
• Systematic procedures and cognitive modeling
• Connections with the classroom and student interest
• Using RISE+ in Whole-Part tx units and projects

Engaged learners who habitually apply comprehension strategies to achieve educational success and enjoy their reading more

Research Project: Students Will...

7. Skim reference material to determine relevance and quality
   – Use targeted comprehension strategies
   – Notice author, relevance, authenticity (rabbits + eat=?)
8. Read for understanding of main idea and relevant details, using tx compr strategies
9. Make paraphrased notes, linked to tx compr strategies
10. Organize and synthesize material in a sketch
11. Create final text, make graphics, complete poster
12. Practice and present oral presentation
13. Review performance on whole and embedded tx skills

References