The Plan

1. Scope and expectations for text comprehension
2. Effective instruction & role of SLP
3. Contextualized skill tx & RISE+
4. Teaching versus learning strategies
5. Simple strategy tx
6. Harder learning strategy tx
7. Project-based comprehension tx

Reading Comprehension

Process of simultaneously extracting and constructing meaning through interaction and involvement with written language (RAND, 2002, p. xiii)

- > reading silently or aloud a printed page
- Active meaning-making thru interactions around print
  -
  -
  -
  -
  -

Plus All the Ways of Comprehending

- Between, Beyond the lines
- Bloom’s Taxonomy:
  1. Recall – choose, identify, recognize
  2. Comprehension – paraphrase, summarize, describe
  3. Application –
  4. Analysis –
  5. Synthesis – c
  6. Evaluation –

Choose the best for X tx for X client under X conditions
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)

So Comprehension = Everything?

Understanding what is read (and heard)
And learning from what is understood

- Vocabulary, grammar, discourse, pragmatics
- Specific and general knowledge
- Memory and cognitive processes
- Factual, inferential, evaluative, and applied understanding of read (and heard) discourse
- Purpose and attitude of reader
- Readability of text
- Conditions of activity

Academic Standards for Reading Comprehension ≠ “Reading”

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


What is “Text” in “Text Comprehension”?

- 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 Reading Comprehension 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. 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 evid, but features that limit generalization or causation

Teaching Comprehension Through Spoken Language Tx
• Clarke et al. (2010) randomized tx experiment on rdg compreh
• Conditions: TC: text reading and writing with lots of strategies; OC: speaking and listening with a few strategies and vocab; CC: combo, faster; WC: waitlist control
• N = 160 8-9yrs: 8 participants in each of 20 schools with low compreh & ok decoding
• 20 wks tx with pre-, mid-, post-test, & 11 mo f/u
• Results: All tx conds > WC; OC & CC > TC on vocab; OC > TC & TC f/u on compreh & vocab

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. Emergent literacy  – Letter knowledge, print concepts, literate language, holistic word recognition
2. Learning to read  – MOM vs. BLEEG
   – Basic decoding and comprehension
3. Reading to learn  – Fluent word recognition, strong comprehension
   – Gaining new knowledge
   – Hopefully, actively and independently achieving learning goals
   Fourth Grade Slump (Chall, 1983)?
Some 3rd Grade Text Comprehension Expectations

1. Ask and answer qns to show understanding of text, referring explicitly to text as basis for answers
2. Describe characters in story (e.g., traits, motivations) and explain how actions contribute to events
3. Determine meaning of literal, nonliteral, academic, and domain-specific words and phrases in text
4. Describe relationship between events, concepts, and steps in text, using time, sequence, and cause/effect
5. Compare and contrast important points and key details in two texts on same topic

Common Core State Standards (2010)

Some 8th Gr Comprehension Expectations

1. Cite textual evidence that most strongly supports analysis of what text says explicitly and inferentially
2. Determine meaning of words and phrases used in text, incl figurative, connotative, and technical meanings
3. Analyze structure of paragraph in text, incl role of sentences in developing and refining key concept
4. Determine author’s pt of view or purpose and analyze how author responds to conflicting evidence or views
5. Analyze texts with conflicting info and disagreements on fact or interpretation

Common Core State Standards (2010)

High School and College: Disciplinary Literacy Expectations

• Intro to literature, science, math, and history
• How texts constituted
• How to make sense of texts w/ discipline or profession
  – Novelist vs civil engineer on a report of development of interstate highways
  – Historians: causal relation networks among events; history as tellings by particular authors who select, organize, and interpret through sociopolitical lens
  – Math and chemistry: specification and accuracy of procedures used to arrive at the answers


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

P.S. Topic Effect on Reading Achievement

Domain expertise can trump reading skill (Recht & Leslie, 1988; Yekovich et al., 1990)

• Poor readers = good readers
• On recall, but also analysis, synthesis, and inferencing qns
• If dx on high-knowledge topic texts (e.g., baseball)

Gender and interest on compreh (Oakhilt & Petrides, 2007)

– 5th gr boys ☝ spider article; girls ☝ child war evacuation article
– Boys: 60% correct on high-interest qns; 38% on low-interest qns
– Girls: 62% for both high- and low-interest qns
**Adult Literacy: Beyond the Finish Line**

- **Illiterate**: Significant degree of insufficiency in reading
- Rates of adult illiteracy depend on operationalization
  - Recognize unfamiliar printed words or write own name
  - Some number of years of schooling
  - Some standard based on needs of daily life
- **2003 US adult illiteracy rate of 98%**:
  - CIA World FactBook: 5 yrs of schooling
  - National Assess Adult Literacy (NAAL): qns about connected text in English or Spanish (Kutner et al., 2006)

**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)
  - 5 yrs of schooling
  - National Assess Adult Literacy (NAAL): qns about connected text in English or Spanish (Kutner et al., 2006)

- **Proficient** = Synthesize and analyze complex prose and docs (compare views in editorials or interpret table of blood pressure, age, and physical activity)

**5th Attribute: Intervention**

For students with low ach or LD:

- **Strong evidence for intensive, explicit, individualized tx by trained specialists**
- Substantial improvement if:
  1. Struggling sts ided
  2. Strengths and weaknesses systematically assessed
  3. Intensive individualized tx provided
- Txs of mainly tchg reading strategies: Consistent moderate to large improvements
- Meta-cognitive approach: Older sts > 3rd-6th gr with

Kamil et al. (2008), Sencibaugh (2007), Solis et al. (2012), Swanson et al. (2014)

**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

**What Should SLPS Do?**

1. Improve language skills
   - Vocabulary breadth and depth
   - Syntax and grammatical morphology
   - Narrative and informational discourse structure
   - 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 or text learning strategies
Learning 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 info and guides attentional focus

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


Strategic Rdg: I Understand That – I think
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?

1. What does logistic regression do?
2. What is the main idea?
3. Why is the outcome often disease/no disease?
4. Why is logistic regression popular in the health sciences?


Before, During, and After Reading Strategies

1. Pre-reading: Think about what is known, predict text content, look for organizing concepts, id plan for rdg…
2. During-reading: 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. After-reading: 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…

Read 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

Aim 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: alltho 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: alltho older 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...

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
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

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: 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)

Considering Clarification Qns and Predictions
• Two commonly taught strategies
  1. Asking clarification questions about unclear text
  2. Making predictions about upcoming text
• Rosenshine and Meister (1994), for informational texts, middle school students
  – Can learn to ask qns about unclear material, but have trouble finding clarifying answers in texts
  – Can learn to predict but not based on text cuz topics often shift abruptly between paragraphs and sections

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 Think before reading</td>
<td>The author’s purpose</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What you know</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What you want to learn</td>
<td></td>
</tr>
<tr>
<td>W While reading think about</td>
<td>Reading speed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linking what you know</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rereading parts</td>
<td></td>
</tr>
<tr>
<td>A After reading think about</td>
<td>The main idea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summarizing information</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What you learned</td>
<td></td>
</tr>
</tbody>
</table>

Strategy Choice and Mindful Engagement

Strategies we teach are only “crude approximations of what expert readers occasionally engage in” (Gersten et al., 2001)

1. Multiple, simple, flexible strategies
   – Not one “best” strategy
2. Teaching process engenders
   – Mindful engagement with texts
   – And active participation with meaning-making
3. Scaffolding to move students to self-regulated use

Acquire habit of asking self: What did that part say? I am not sure. I know what to do to fix this. And I will do it.

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
Cognitive Modeling
- Demo thinking processes so srs 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 srs 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

SLP Modeling Before, During, After
1. How to approach the text before reading for a particular purpose
   *I am looking for reasons for declining mule deer populations*
2. How to apply a strategy during the reading
   *This paragraph doesn’t make sense, I will reread it and look for a topic sentence.*
3. After reading, how to reflect what has been read and what to do about gaps in the knowledge
   *The author gave his opinion but little evidence, so I need to find another article*

Content + Strategy Instruction
McKeown, Beck, & Blake (2009) compared content vs strategy instruction for rdg compreh
- Six 5th gr classrooms for scl yr in 3 conditions:
  1. Content: Srs read passage aloud and discuss what author saying at key pts (e.g., when major character introduced, important event occurred, or confusing statement made)
  2. Strategy: Teach to summarize, predict, draw inferences, ask qns, and monitor comprehension plus understand story content
  3. Basal text: Teacher asks compreh qns about content from basal text program

= Strategy and Content Overload
Results of McKeown et al. (2009):
  1. Big improvement for all conditions, incl compreh monitoring and recog of better summaries and inferences
  2. For familiar and new text knowledge probes, responses better for content condition
  3. All 3 approaches encouraged active comprehension and mental discourse templates
     *BUT strategies condition had split focus*
   *I. Teach strategies on short texts separate from main lesson, then intro in content lesson in natural opps
     \(\rightarrow\) SLPs!*

Quality SLP Tx: RISE+
- Repeated Opportunities
- Intensity of scheduling
- Systematic structural and interactive support
- Explicit Skill Focus
- Learner factor

Text Comprehension Tx
Teresa A. Ukrainetz, Ph.D.
University of Wyoming

Speech, Language, and Audiology Convention
Halifax, NS April, 2016 8
Small Group Scaffolding

- 2-4 sts > large group or 1:1 for “think aloud” about rdg strategies and compr processes
  - Thru talking with each other about the reading
  - SLP embedding strategic qns into conversations
  - SLP scaffolding children’s responses

- Reciprocal Teaching (Palincsar): Sts take turns being teachers and lead each other in practice sessions
  - With scaffolding, “student-teachers” lead process
  - Summarize, ask qn, predict, clarify strategies
  - External scaffolding use → Internalization of strategies

Structural Scaffolds through Text Selection & Modification

1. Narrative text: Identifying characters or motivations
2. Informational text: Identifying main idea of paragraphs
3. Sets of passages: Repeated, equivalent opportunities for learning and practice
4. Excerpted passages: From social studies and science texts or source papers for class projects
5. Trade sources: Books, magazines, and websites selected to match classroom topics or individual student interests
6. Modify texts: Systematic changes to simplify or to add confusing or missing elements

Managing Text Difficulty

- Challenging enough to need strategies but not so 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

Crafted Instructional Texts

- Controlled difficulty texts
- May be produced for other purposes
- May not be well written but good starting points
- Revise and adapt as needed

- Helpful sites:
  - http://a-z-animals.com/animals/
  - http://www.readworks.org/
  - https://lexile.com/analyzer/

Quick Read Reading Fluency Passages

Finding Out About Dinosaurs

Hiebert (2002)
www.pearsonlearning.com

QuickRead Level C Topics

<table>
<thead>
<tr>
<th>SCIENCE</th>
<th>SOCIAL STUDIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BOOK 1</strong></td>
<td><strong>American Heroes</strong></td>
</tr>
<tr>
<td>Dinosaurs</td>
<td>Celebrations</td>
</tr>
<tr>
<td>Animal Giants</td>
<td>Our National Government</td>
</tr>
<tr>
<td>Plants</td>
<td></td>
</tr>
<tr>
<td><strong>BOOK 2</strong></td>
<td><strong>Oceans</strong></td>
</tr>
<tr>
<td>Hurricanes</td>
<td>Rain Forests</td>
</tr>
<tr>
<td>Earthquakes</td>
<td>Economics</td>
</tr>
<tr>
<td>The Solar System</td>
<td></td>
</tr>
<tr>
<td><strong>BOOK 3</strong></td>
<td><strong>Ancient Egypt</strong></td>
</tr>
<tr>
<td>Inventions</td>
<td>The Ways We Communicate</td>
</tr>
<tr>
<td>Simple Machines</td>
<td>Native Americans</td>
</tr>
<tr>
<td>Sound</td>
<td></td>
</tr>
</tbody>
</table>
Make a Science Abstract

56. Hidden

Purpose: To demonstrate how color helps to protect us against

Material: scissors

Procedure:

1. Cut two strips of newspaper (10 cm by 15 cm) from a newspaper.
2. Dip them in water.
3. Set them on fire.

What you learned about early grammar tx applied to any
other tx skill

Systematic Interactive Scaffolds

- Responsive dynamic moves of skilled clinician
- Linguistic: giving info to help child create better response
- Regulatory: control beh & attn, gain responses, facilitate
self-control
- Matched to child need & task difficulty
- Systematic decrease in support and handover to child
  - Internalization of
  - Automation of behs & strategies into

Linguistic Scaffolds

What you learned about early grammar tx applied to any
other tx skill

- Model the desired structure
- Emphasize key part
- Provide part of answer with cloze procedure
- Expand, extend, and recast child’s response
- Vertical structure (combine two responses into one
structure)
- Focused contrast (pair the error and correct structure)
- Redirect (model by having student ask a peer using the
structure)
Scientists are still trying to determine what raptors are, where they come from, and what became of them. Spectacular new fossil finds, discovered only in the past few years, have forced scientists to change many of their ideas about how raptors looked and acted.

Interactive Scaffolding of Summarizing

Lessem (1996)

Internalization Process

STOP – Whose Strategy Is It?

- Strategy: teaching tool vs. learning tool
  - Grouped as “instruction strategies”
  - Who is using the strategy? What is the tx goal?

- Many tx studies for younger sts do not systematically scaffold to independence
- Tx research for older sts often has some guided and independent practice, but instruction and outcome measurement rarely address self-directed 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 comprehension...

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
  selves 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
• Talked 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

Harder Learning Strategies Tx – Or
Maybe Better as Teaching Strategies

Strategies that require component instruction:
1. Discourse Structure Awareness
2. Main Idea and Summarization

Text Structure Awareness

Students acquire strategy of looking for structure of
narrative or expository text
• Use structure to guide understanding
• Discourse analysis with graphical support
• Helps reading comprehension
  – Identify which narrative elements linked how
  – Separate out essential from trivial details
  – Work thru logical relations of expository text
  – Organize content into coherent mental structure

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

But first must teach story grammar structure or the varieties
of expository discourse structure...

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 compreh
  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

Summarizing What is Read

Teaching sts to periodically stop and summarize paragraphs, sections, chapters, and articles

Summary Instruction Variations:
1. **Gist**: Read paragraph one line at a time and gradually compose single long sentence that encapsulates ideas expressed in each line
2. **Rule-governed**: Identify and select topic, supporting, redundant, and irrelevant statements, then build into coherent summaries
3. **Hierarchical**: Use chapter, section, and subsection headings to create summaries of large pieces of text

Rule-Governed Summary Construction

1. Read the passage
2. List the key points
3. Combine related points into single statements
4. Cross out least important points
5. Re-read the list
6. Combine and cross out more points
7. Rerunumerate points in logical order
8. Write points into paragraph in numbered order
9. (Add connective words to make it flow)


Finding Main Points about Fossils

1. Fossils tell about dinosaurs. (implicit)
2. Fossils are bones and eggs found under the ground. (explicit, paraphrased)
3. Fossils tell dinosaur size, where it lived, how big it was, how fast it moved, and what it ate. (summarized)
4. The shape of a dinosaur teeth tell us what it ate. (explicit & implicit)
5. Meat-eating dinosaurs had long, sharp teeth. (explicit)

Fossils tell us about dinosaurs. Fossils are buried bones and eggs. The shape of dinosaur teeth tell us what they ate. Meat-eaters had long, sharp teeth.

Build a Fossil Paragraph

**Finding Out About Dinosaurs**

How do we know that dinosaurs lived long, long ago? There are people who know the answer. They are called paleontologists. Paleontologists learn about dinosaurs from fossils. Fossils are the things left over from long ago, such as dinosaur bones and eggs. Fossils are found under the ground and in rocks. Paleontologists dig in the ground and look at rocks to find fossils. By looking at fossils, paleontologists can learn how a dinosaur was small or large. Fossils also help paleontologists learn where a dinosaur lived on land, how fast it moved, and what it ate.


**Meat-Eating Dinosaurs**

The teeth that are found in fossils help us know what dinosaurs ate. When dinosaur teeth are long and sharp, we know that these dinosaurs ate meat. Meat-eating dinosaurs came in many sizes. The dinosaurs’ long, strong legs helped them run after other animals. Meat-eating dinosaurs had sharp claws. Their arms ended in sharp claws. These sharp claws were used to tear at other animals.

One of the biggest of the meat-eating dinosaurs was Tyranosaurus rex. The word rex means “king.” We call Tyranosaurus rex the “king of the dinosaurs” because of its size.

Finding Out About Dinosaurs

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.

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 and 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 Tx

Wong et al. (1986)
- 1 mth for stts to paraphrase main ideas
- After 3 mths of 3 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

Mr. Brown took some slow deep breaths. He looked quietly at each one of us. His yelling got louder and louder. He unclenched his fists. Mr. Brown said gently, “I’m not mad anymore.” Mr. Brown chose eggs for breakfast. Mr. Brown said, “You tell me your side of the story.” He inhaled and exhaled deeply.

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

Results of Summarization Instruction

Finding Implicit Main Ideas

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?

Summarizing Disciplinary Document Text
- Extract main idea from images, headings, bulleted lists, and isolated statements
- Shanahan and Shanahan (2008)
  - Chemistry: 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

Speech, Language, and Audiology Convention
Halifax, NS April, 2016
Common Text Signaling Devices

- Cover pages
- Title
- Table of contents
- Foreword or preface
- Headings and subheadings
- Sidebars and boxes
- Highlighted phrases and words
- Key opening phrases
- Lists
- Pictures and captions
- Labeled diagrams
- Charts, graphs, and maps
- Cutaways and cross sections
- Inset photos
- Glossary
- Index

Why Signaling Devices Matter

Guide reader (and writer) speedily and accurately through expository texts (Lorch et al., 2011)
- Show and amplify organization – sequential, hierarchical, interesting…
- Central ideas or direction of a piece of text
- How each part relates to prior and subsequent material
- Support analysis and synthesis of information
- Locating main ideas and details of passages
- Get a sense of topic & concepts, terminology & vocabulary

Signal Use Expectations

Read the index below from a book about colonial times:
Adams, Benjamin 34
Adams, John 38
Clothing styles 12
Crafts 6
Commerce 22
Gardens 25
Lumber trade 29
Main Streets 32
Trade(s) 22-24, 36-40
after the American Revolution 22
before the American Revolution 37
China 24
Lumber 29
Sewing 7
Strawbery Banke 23
Washington 12

1. If you wanted to find information about food in colonial times, where is the BEST place to look?
   a. page 6
   b. page 23
   c. page 25
   d. page 32

2. What is the MAIN reason there are four entries under Trade(s)?
   a. The book is about trade during colonial times.
   b. The book discusses different topics about trade.
   c. Trade is a difficult topic to understand.
   d. Trade was very important during colonial times.

Benefits of Habitual Text Preview

- Moves student from passive recipient to active participant in learning
- Alerts and familiarizes student to content and format of material
- Allows judgments of utility of text compared to time and effort needed to understand or find specific info
- Activates mental schema of text structure (e.g., This is an opinion article) and content (e.g., This is about mule deer so it should address appearance, diet, reproduction, and habitat).
- Introduces important vocabulary and concepts of text without “preteaching”
**Text Preview Study**
Kelley and Clausen-Grace (2008)
- **Qn:** Effect of text preview for reading comprehension?
- **Method:** 4th graders stratified by reading level and randomly assigned to 3 conditions:
  - Control: Write predictions about learning re: human body from science text, read silently, answered qns
  - Discussion: Talk about human body with textbooks closed; predicted, read, and answered qns
  - Text preview: Text feature walk prior to writing predictions, rdg text, and answering qns
- **Results:** Text preview > prediction-and-read-only > discussion

**Identifying Text Signal Devices**
1. Present text and tells students will be learning to find features that signal important information
2. Identify type of text, such as a book chapter versus a study report, and purpose for reading, such as studying for a test or locating facts for research paper
3. Travel through text to get sense of what topics covered, how content organized, what shows important points, where summaries located, signal labels, and how to quickly get idea of section content
4. Check-off list or create list as features are identified. Students can infer what info signal provides

**Using Text Features**
1. After identifying what each signal means, SLP takes student through using signaling features
2. First time, SLP uses think-aloud to model what to look for, what signals are present, and what message the signals transmit.
3. Using the same text and notes, the student travels that path again with SLP assistance, predicting the text signaling answers from the cursory look at the text.
4. Share in reading text, then return to predictions to confirm or modify based on learned from the reading
5. Student moves to new source to identify features

**Text Preview Guidance**
- Start with well-written texts and move to more challenging texts with need to judge if signal is help or hindrance (e.g., *That illustration distracts from the main idea of this page*)
- Guide students through variety of familiar and new print and online sources until they easily identify text signals across different text formats
- After students familiar with text preview, scaffolding shifts to students adopting text preview as own learning strategy that they use to answer their own study questions

*This is a textbook like you might use in school. I want to see how you get an idea of this book, what strategies you can use.*
Awareness of Signal Utility

- Some books provide a lot of organizational guidance and others provide little
- Some text features detract from the message,
  - Abundance of boxed words
  - Highlighting appealing but trivial statements
- Concluding paragraphs may speculate beyond what discussed
- Opening paragraphs may lack purpose statements or use uninformative or distracting “hooks”

Text Look-Backs

- Companion skill to look ahead is **look back**
  - Awareness of gap in comprehension or recall
  - Recognize that info should be in the text
  - Efficient (and permissible) text search procedure
- Seems obvious, but students rarely do so (August, Flavell, & Cliff, 1984; Garner & Reis, 1981; Garner, Hare, Alexander, Haynes, & Winograd, 1984)

Effect of Teaching Look-Backs

Garner et al. (1984)

- 24 9-13 year olds, ok decoders, poor comprehenders
- Tx: briefly taught to look back for info
- Control: taught main idea & summarization strategies
- 5 days post tx: I am going to ask you to read a short article. Read it slowly. I will ask you three qns about the article when you’re done rdg.
  - 1 text down, 1 up, if no look back:
    - You can look back at any part of the article to answer the qns
- Results:
  - Similar simple recall qns: 31% and 33%
  - In-text qns: tx use 70% vs con 22%; correct 72% vs 31%
  - Tx looked back, flipped text over, asked if look-back ok
  - Control only looked in text-up w/ cueing

Look-Back Tx Procedure

1. Examine qn for answer “from your head” or “from the text” (Raphael, 1986)
   - **Right There** (obvious)
   - **Think and Search** (putting it together)
   - **Author and You** (inferring)
   - **On My Own** (known without reading)
2. Skim text to find most likely section & why others not
   - SLP models skimming text, with comments on why other sections not likely
   - Similar to text preview re: noticing signaling devices, but with added awareness from having read text

More Look-Back Tx Procedure

3. At relevant section, note potential from the heading
   - At relevant section, student examines heading to determine why this may be informative
4. Slow down and read each sentence carefully for needed info
   - SLP models slowly reading each sentence and verbalizing thoughts about presence of needed information.
   - Many students not good at stepping outside content to make “meta” judgments about relevance of info
Permission to be a Strategic Learner

- Impermissible shortcuts to gaining info?
- Assure students that lookbacks, skimming, and text previews are legitimate, smart ways of learning
- Strategic approaches to reading
  - How each reading fits into larger learning picture,
  - Whether to skim, analyze, or memorize
  - All of article/chapter/section/book or a specific part

Students practice figuring out reason for reading in SLP-devised class scenario and matching approach to purpose

Strategy Tx Steps – In Sum

1. Observe lessons, examine assignments, and talk with teachers to identify strategies
2. Choose a few simple strategies with obvious benefits
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 and closer links to classroom
5. Focus on strategy use w/o mastery of new curriculum
6. Move into collaborative, sheltered content learning sits
7. Move to subject teachers with previews & checkups
8. Maintain student awareness of progress and benefits of mindful, strategic reading

Expository Strategy Tx Goals?

1. Johanna will improve text comprehension by producing oral summaries of informational articles with 80% accuracy of form and content based on SLP data
2. Johanna will independently find and use info from grade-level articles to produce paraphrased summaries at 80% accuracy of content, organization, and strategy use based on SLP data
3. Johanna will improve the content and organization of expository writing by producing bulleted notes and oral summaries of informational texts at 80% accuracy based on SLP data

Expository Strategy Tx Objectives?

Johanna will:

a. Identify four genres of expository discourse structure for grade-level articles at 80% accuracy based on SLP data
b. Use two learning strategies, text preview and lookback, to identify key info in grade-level textbooks...
c. Determine and carry out the approach to reading an expository text based on the stated purpose...
d. Identify main ideas and supporting details of passages from informational texts...
e. Make bulleted notes of key info organized into assigned categories from grade-level texts...
f. Produce oral and written paraphrased summaries from bulleted notes...

Baseline & Progress Data

Johanna will independently use two learning strategies, text preview and lookback, to identify key information at 90% accuracy based on SLP data

- Can Johanna obtained accurate key information?
- Can Johanna use the strategy accurately?
- How much support does she need?
- Is Johanna using the strategy to get the information?
- In what contexts does Johanna use the strategy?
- What are the blocks and supports to habitual, independent use?
Data Sources on Product & Process

1. Information retrieval accuracy
2. Observe st’s actions & notes during reading: what does Johanna do and how fluently does she do it?
3. Student think-alouds during the learning task
4. Interview student after a learning task
5. Observe a lesson and hope a strategy opportunity appears
6. Ask teacher to embed in lesson a question or scenario that would benefit from strategy use
7. Ask student about class assignment and strategies used

The Almost Final Event: Speak-and-Sketch Note-Taking Tx

Inspired by some strategic learners and their sneaky shortcut…

Reading and Writing to Learn Thru Note-Taking

- Moving from learning to read and write to reading and writing to learn
- Writing improves reading (Graham & Hebert, 2011; Hebert et al., 2014)
- Writing notes: succinct, info-dense, organized statements
- Take notes on what is read and hear for use in presentations, reports, and tests

Mental processes → paraphrasing and summarizing → comprehend, recall, analyze, evaluate, synthesize

Note-Taking Tx to Close the Crack

4th Grade note-taking (Hebert et al., 2014)
- Sparse with little or no info from passage
- On only one aspect of passage, Ignore whole sections
- Included superfluous info
- Connected text instead of iding important info
- Include all or most info from a passage

- But classroom instruction in learning strategies often incidental and irregular
- Maybe SLPs can catch our students before they fall…

Revisiting A Story Notation Tool

Fast, flexible, temporary preservation of story content
- AKA stickwriting or picture writing
- Quick & easy
- Just enough to remember

Pictography in Narrative Tx

Uses:
- Dramatic scripts
- Recall & comprehension
- Drafts in writing process
- Cooperative composition

Findings:
- Easy to learn & use, g1-7
- Coherent sequential telling
- Complex story structure
- Content focus, revision, & extension
- Pictog > writing or drawing for length & quality

The Sneak – Student-Devised Key Word Plans

Pictography for Procedural Discourse

Speak-and-Sketch Note-Taking Tx

- After hearing or reading text, alternating oral and print full and simple productions with interactive scaffolding

Read it → say it simply → sketch it simply → say it fully → note it simply → say it fully → write it fully @ @

- Pictography breaks away from text wording
- Pictography to bulleted notes on 2-column paper & categs
- Repeated oral paraphrasing & summarizing

Cobwebs To Crosshairs!
by Carol Anne Moorhead

Cobwebs in your telescope? Could be – no matter how often you dust!

Imagined in the lenses of many telescopes are two strands of spider silk. Don’t think you can see them? Think again. If you can see the crosshairs in your telescopes, you can see the “cobwebs.”

Cobwebs haven’t always been made of spider silk. Early telescopes were made of platinum wire and through barely raised glass to view and chart the night skies. But by the 1900s, telescope manufacturers were using spider silk for crosshairs.

Freeman, M.S. (1997). Listen to This: Developing an ear for expository. Maupin.

Try it Out – Cobwebs to Crosshairs

It’s easy to see why. Spider silk is less expensive, easier to stretch into a straight line, and more resistant to extreme temperature than platinum. It is also much finer. The average strand of spider silk is 1/4,000th of a human hair thick.

Now, spider silk crosshairs are spinning out of existence. According to Alan Hale, president of Celestron International (telescope maker) spider silk is being phased out in favor of less costly but thicker copper wires. At 1/20th of a human hair wide, the new copper strands are only 5 times finer than a human hair.

Cobwebs in your next telescope? Not likely unless you keep the cap off the lens.

Cobweb Pictography

Teacher-Approved Two-Column Notes

<table>
<thead>
<tr>
<th>Topic/Source</th>
<th>Category/Feature</th>
<th>Attribute/Question</th>
<th>Pictography &amp; Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>Habitat</td>
<td>Appearance</td>
<td>Movement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Preferred Food</td>
<td>Special Feature</td>
</tr>
</tbody>
</table>
Speak & Sketch Note-Taking Tx

• **Preview:** You will be learning how to write good notes about important information from what you read. This will help you understand your class readings, give oral presentations, write reports, and study for tests. You are going to learn two ways of taking notes: a special way and the regular way.
  – What are you learning, why are you learning it, and where else can you use it?
• **Preparation:** Give student choice of animal articles. Show 2-column notes form. This is how record info you need for making reports or studying. We will be practicing finding and noting important information.
  – Show picture of animal after completing pictography but continue to use text as source of info

Speak & Sketch Session 1 - Pictography

1. **Say it simply.** Shared read aloud Topic 1. Stop after each parag, ask for item to go on notes form but don’t write it. Tell student to remember where info located & keep on reading.
2. **Sketch it simply.** SLP models pictog from first parag on own sheet. Student chooses item, sketches in category. - Pictography: **quick and easy**, and **just enough to remember** (e.g., penguin = oval with feet; eats bugs and worms = dot and wiggly line)
3. **Say it simply.** SLP models sentence from pictog. Student says sentence from his pictog. Revise and improve. Move to next parag, repeat.
4. **Say it fully.** Say whole summary from pictog. Revise pictog and oral summary. Repeat oral summary.

Speak & Sketch Session 2 – Bulleted Notes

5. **Say it fully** from Topic 1 pictography.
6. **Say it and note it simply.** From pictog and article. Now we are going to learn to turn our pictography into short notes of important ideas. We will write using quick and easy key words. Initially clinician writes notes and talks thru them: The dots are called bullets. Bullets show these are just the important words. For bulleted notes, you don’t need proper sentences. After a few, student writes. SLP scaffolds oral and written notes. For spelling request, find word in article (incidental spelling strategy).
7. **Say it fully** from notes. Revise notes and oral summary. Repeat saying it fully.

Speak & Sketch – Written Summary

Sessions 3, 4, 5 – Repeat pictog & notes on Topics 2 & 3
Session 6 – Writing from Notes
8. **Say it fully** from notes of Topic 3. Revise notes and oral summary.
9. **Say it and write it fully** but one sentence at a time. Have student orally produce each well-formed sentence from notes before and after they write it.
8. **Say it and write it fully** for topic sentence. Help student make a relevant, **paraphrased** version of the article’s opening sentence. Say it then write it.
10. **Say it and write it fully** for closing statement.
11. **Say it fully** by reading aloud the summary. Revise written summary with reference to sketches and notes.

Review Organization, Paraphrasing, and Summarizing

12. **Editing.** Conventions checklist, guide student to make some corrections to spelling, capitalization and punctuation.
13. **Organization review.** Compare written summary to notes for expanding key ideas into full sentences. Show how order of sentences matched order of the notes this time. Next time, student may have to re-organize notes with numbers and arrows to make a good summary.
14. **Paraphrasing and summarizing review.** Compare written sentences to article sentences. Compare how student **paraphrased** and **summarized** important info from longer article.

Bridging From SLP to Classroom

15. **Review.**
  – Discuss use of note-taking in helping to understand, talk, write better in class.
  – Pictography optional but may be helpful for getting ideas on paper quickly
  – Ask student for way it will be easy and way hard to take notes in class assignments
Future steps
  – Move to harder texts, note-taking for different topics and features, 2-column notes groups that need re-organization
  – Work on facilitations and hindrances to using note-taking strategy for classwork
Note-Taking Rubric

Organization
- Title relevance
- Category names
- Bullet use
- Sentence reduction
- Punctuation absence

Content
- Info coverage
- Info from source
- Category coverage
- Category match
- Notes utility

Summary Rubric

Organization
- Topic statement
- Info grouping
- Category labels
- Category repetition
- Concluding statement

Content
- Info coverage
- Info match to source
- Category coverage
- Category match
- Info specificity

Paraphrasing
- Novel sentences
- Novel vocabulary
- Novel quality
- Category use in sentences
- Cohesion among sentences

Delivery
- Oral style & fluency
- Written conventions & spelling

Habits of Mindful Reading for Comprehension and Learning

- Match way of reading to purpose
- Stop to ask selves qns (and answer)
- Paraphrase and summarize
- Note important ideas
- Monitor and seek repairs

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</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Use a picture</td>
</tr>
<tr>
<td></td>
<td>Chunk word</td>
</tr>
<tr>
<td></td>
<td>Discuss with partner</td>
</tr>
<tr>
<td></td>
<td>Draw it</td>
</tr>
<tr>
<td></td>
<td>Look it up</td>
</tr>
<tr>
<td></td>
<td>Read ahead</td>
</tr>
<tr>
<td></td>
<td>Read aloud</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sentence Fix-Ups</th>
<th>Fix-up strategies applied to confusing sentences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Passage Analysis</th>
<th>ID main idea versus details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>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>
<tr>
<td></td>
<td>Taught inferencing conclusions from stated information in text</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

- To increase reading comprehension (Common Core, 2010; Adams, 2011)
  - Go narrow and deep, not broad and superficial
  - Plus linking topic learning between grades
- Lots of reading advanced texts on common topic
  - Drive concept and vocabulary learning
  - Including never-seen-before new words
- Thematic instruction ➔ knowledge, vocab, and compreh ➔ students handle more difficult texts, ➔ improve knowledge, vocab, & compreh ➔ 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

**Expository Tx goals:**
1. Persuasion speech structure
2. Summarizing main ideas and details
3. Using X learning strategies
4. Vocabulary of inferring word meaning from text

**Project features:**
- Extended text comprehension & production
- Many tx goal possibilities
- Specific skills integrated in meaningful, motivating product
- Larger groups & resource teacher collaboration

---

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

- Oral language in composition process and presentation
- Bulleted notes involve minimal writing
- Strategy practice embedded in reading sources
- Media possibilities: Research poster, podcast, Wiki report
- Focus on target tx skills thru RISE+

**Setup**
- 8-12 sessions
- Small groups of a range of grades
- Give choice of research topics around theme
- ID sources in advance: websites, books, magazines
- Make timeline and guide for "What do I do next?"

---

Informational & Narrative Literature

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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

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Concept Map

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Speech, Language, and Audiology Convention
Halifax, NS    April, 2016  24
### Key Word Search

**Major Topic:** Tsunami

**Research Questions:**
- What kinds of tsunami warning systems are there?
- How do tsunami warning systems work?
- Where are tsunami warning systems located?
- Who invented tsunami warning systems?

**Keywords for Search:**
- Tsunami + warning
- Tsunami + predict
- Tsunami + predict + location
- Tsunami + warning + inventor

---

### Research Project: Students Will...

1. Skim reference material to determine relevance and quality
   - Use targeted comprehension strategies
   - Notice author, relevance, authenticity (rabbits + eat?)
2. Read for understanding of main idea and relevant details, using tx compreh strategies
3. Make bulleted notes, linked to tx compreh strategies
4. Show where you paraphrased a sentence from a source.
5. How did you remember important info from your sources?
6. Practice and present oral presentation
7. Students Will
8. Review performance on whole and embedded tx skills

---

### Student Self-Evaluation of Learning Strategies

In this project:
1. What were your tx goals for this activity/unit/project?
2. What did you do when you first looked at your sources?
3. Where did you look to answer qns about your topic?
4. Where did you look to answer qns about your topic?
5. What was one tx goal strength for your project?
6. What was one tx goal strength for your project?
7. What are you going to focus on improving next time?
8. How much help did you need to meet your tx goals?
9. How much help did you need to meet your tx goals?

---

### Ross Reflection on Tx Projects

Challenging
- Teach and track multiple sts and tx objectives at a time
- With each progressing at individual rate

But also rewarding
- Continually astounded at middle schl sts: “work ethic, focus, and enthusiasm”
  - Can I start my Boolean search on the internet today? I finished identifying my keywords last session.
  - I have highlighted the answers to my research qns, so today do I get to start notetaking?
  - I have typed my research notes. Can I start my final product design?
  - You said we would present our posters to each other in Speech, but can I present mine in reading class? I think Mrs. Smith and the other sts would like to see what I’ve been working on.

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### Comprehension Tx – In Sum

- Active, purposeful engagement with meaningful texts
- Learning strategies for before, during, and after reading
- Support 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
References