Expository Language Intervention: Strategic Teaching and Learning of Informational Discourse

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Part A
Text Comprehension: Scaffolding Strategic Learners

Start with the destination

Reading Comprehension

Reading = Decoding + Comprehension

OR

Five “Pillars” of Reading Instruction (National Rdg Panel, 2000)
1. Phonemic awareness
2. Phonics
3. Fluency
4. Vocabulary
5. Comprehension

The 3-Hr Plan

1. Comprehension scope & expectations
2. Effective instruction & role of SLP
3. Contextualized skill tx & RISE+
4. Simple learning strategies
5. Harder-to-learn strategies
6. A close-up on one tx procedure

What is “Reading Comprehension”?

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

> Read & understand silently or aloud a printed page

Active meaning-making thru 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
– Incorporating read info into written essays & reports…

BCASLPA Convention

Burnaby BC  Oct 2017
Plus All the Ways of Comprehending

- Factual, inferential, and applied understanding: On, Between, Beyond the lines
- Bloom’s Taxonomy:
  1. Recall – choose, identify, recognize
  2. Comprehension – paraphrase, summarize, describe
  3. Application – construct, simulate, predict
  4. Analysis – classify, differentiate, contrast
  5. Synthesis – combine, integrate, assemble
  6. Evaluation – judge, defend, appraise

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

Reading ≠ “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 main topic and retell key details
- Describe connection between two individuals, events, ideas, or pieces of info
- 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…


So Comprehension = Everything?

Understanding what is read (and heard)
And learning from what is understood
Developed through reading, writing, speaking, & listening
Measured mainly through writing & speaking

+ Linguistic skills and cognitive processes
+ Specific and general prior & new knowledge
+ Factual, inferential, evaluative, & applied acts
+ Purpose and attitude of reader
+ Readability of text
+ Conditions of activity
Reading Comprehension: What is Expected of Students and Educators?

And, how well do grown-ups read anyway?

Development of Reading

1. Emergent literacy
   - Print concepts, holistic word recognition, decontextualized language, school culture
   - Letter knowledge, phonemic awareness
2. Learning to read
   - MOM vs. BLEEP
   - Basic decoding and comprehension
3. Reading to learn
   - Fluent word recognition & proficient comprehension
   - Gaining new knowledge & actively achieving learning goals
   *Fourth Grade Slump (Chall, 1983)?*

3rd Grade 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


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, including figurative, connotative, and technical meanings
3. Analyze structure of paragraph in text, including role of sentences in developing and refining key concept
4. Determine author’s pt of view or purpose
5. Analyze texts with conflicting info and disagreements on fact or interpretation

Common Core State Standards (2010)

Common Core: Proficient Learners

- Understand, produce, & evaluate literary and informational texts
- Communicative purposes: persuasion, explanation, and conveying experience
- Strong general and domain knowledge
- Across subjects: discuss literature, present science projects, or write history essays
- Emphasis on textual evidence over personal connections
- Self-directed learners who read purposefully, ask questions, and seek out resources

Callkins et al. (2012), Common Core (2010)

Reading Comprehension Performance

- In international assessments of schoolchildren
  - Performance of 4th-graders > average
  - Performance of high school students ≤ average
- National Assessment of Educational Progress (NAEP)
  - 1971-2008 annual average scores
  - 9-year-olds increased by 12 points
  - 13-year-olds increased by 4 points
  - 17-year-olds did not change
- SAT and ACT verbal average same since 1980
  - bottom moved up but top moved down

(Adams, 2011)
High School and College: Disciplinary Literacy Expectations

- Intro to literature, science, math, and history
- How texts constituted
- How to make sense of texts with discipline or profession
  - Novelist vs civil engineer on report of development of interstate highways
  - Historians: causal networks among events; author selections & interpretations thru sociopolitical lens
  - Math and chemistry: numbers & visuals; specification and accuracy of procedures to arrive at answers


Challenges to Teaching Disciplinary Literacy

- Comprehension 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
- NIMBY
  - 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

Historical Textbook Wording Difficulty

- Textbook difficulty = college entrance score pattern
- Books get harder 1st to 8th grade
- Books level out 9th to 12th grade (incl Adv Placement)
- Hi-lo accessible texts

(Chall et al., 1977; Hayes et al., 1996)

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 school and GED
  - 33% of college graduates

Lexiles for Grades – Old & New

Metametrics, Measures and Grade Levels, www.lexile.com/Lexile

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 (Kulner et al., 2006)
**Effective Text Comprehension Instruction**

**Successful Features of Instruction**

Kamil et al. (2008) systematic research review, ≥8th grade:
1. Explicit vocabulary instruction (Strong)
2. Direct comprehension strategy instruction (Strong)
3. Extended discussion of text meaning and interpretation (Moderate)
4. Increasing student motivation and engagement (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

**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

**Change in Teacher Role**

OLD
Task director, passages of increasing difficulty, students answering content qns

NEW
1. Qns on text structure, links to background knowledge, encouraging student qns
2. Give up sustained control, move to independent learners
3. Cognitive modeling: when, why, how, not just what

NEWER
+ Close reading, textual evidence, & staying on topic

**Teaching Understanding Thru Talking**

Clarke et al. (2010) randomized tx exp’t
• Conditions:
  1. TC: text read + write + lots of strategies
  2. OC: speak + listen + a few strategies + vocab
  3. CC: combo of TC & OC at faster rate
  4. WC: waitlist control
• N = 160 8-9yrs 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

**Topic Effect on Reading Achievement**

• Domain expertise can surmount reading skill (Recht & Leslie, 1988; Yekovich et al., 1990)
  – On recall, analysis, synthesis, and inferencing qns
  – Tested on high-knowledge topic texts (e.g., baseball)
  – Poor readers but mini-experts = good readers
• Gender and interest-sensitivity (Oakhill & Petrides, 2007)
  5th gr boys spider & bugs article
  5th gr girls child war evacuation article
  = Boys: 60% ✔ on high-interest qns; 38% on low-interest qns
  = Girls: 62% ✔ for both high- and low-interest qns
Staying on Topic

- Go narrow and deep on a few topics
  - Link topic learning between grades & subjects
  - Lots of reading advanced texts on common topic
  - Plus other topical multi-modal & experiential learning
- Current knowledge scaffolds more knowledge
- Drives concept and vocabulary learning
  - For rich interconnected funds of knowledge
  - Including never-seen-before new words

Thematic instruction ➔ knowledge, vocab, comprehension ➔ students handle more difficult texts ➔ improve knowledge, vocab, comprehension ➔ raise SATs ➔

(Adams, 2011)

Staying on Topic Across Grades

<table>
<thead>
<tr>
<th>K</th>
<th>1</th>
<th>2–3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The five senses and associated body parts</strong></td>
<td><strong>Introduction to the systems of the human body and associated body parts</strong></td>
<td><strong>Digestive and excretory systems</strong></td>
</tr>
</tbody>
</table>
| - Touch by Maria Rius (1985) | - Taking care of your body: Genes, disease, and preventing illness (1997) | - Healthy eating and nutrition
| | - Genes Make Me Sick by Marilyn Berger (1996) | **Muscular, skeletal, and nervous systems**

**Common Core (2010)**

So How Can SLPs Make a Difference?

Distinctive competencies & service delivery

Being strategic about intervention

Successful Instruction Includes Intervention

For students with low ach or LD:

- Strong evidence for intensive, explicit, individualized tx by trained specialists
- Substantial improvement if:
  1. Struggling stts ided
  2. Strengths and weaknesses systematically assessed
  3. Intensive individualized tx provided
- Txs of mainly tchg reading strategies: Consistent moderate to large improvements

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

Intervention = 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 of classroom
2. SLPs:
   - Curricular freedom, underlying skills focus, problem-solving orientation, teaching through talking
   - For explicit, individualized, scaffolded instruction of skills and strategies connected to topics and demands of classroom

**BOTH connected to classroom**

What Can SLPs Do?

1. Knowledge and use of vocabulary, grammar, and discourse
2. Metalinguistics, cognitive processes, and executive function
3. Word and text comprehension strategies
4. Curricular compensations and modifications
5. Classroom discourse of didactic lessons, group projects, and book discussions …

... typical language tx goals match reading comprehension needs, but…
But What Should SLPs Do?

Small array of time-limited, integrated treatment targets
- Tx targets likely to result in noticeable diffs within a year
- 2-3 tx targets at word, sentence, discourse levels
- 1-2 tx targets of learning attitudes & behaviors
- Incidental attn to vocabulary in topicality-linked activities

Skills targeted individually and integrated within larger significant communicative events

Words are the bricks of language, shaped through morphological variation, mortared together with syntax, and framed by discourse structure into a functional building


Vocabulary Tx Thru Staying on Topic

- Single coherent knowledge base to tx language goals
  - Classroom curriculum
  - Typical child interest at that age
  - Mini-expert’s own interests
- Concepts and vocab addressed incidentally
  - New, difficult, interesting, or useful words
  - Words noticed and used as recur or as needed
  - Advance planning of a few key words
  - No “pre-teaching” isolated words out of context

Children learn words by needing them, and they use word-knowledge to learn other things (Nelson & van Meter, 2006)

Tx Goals over Grades – Word, Sentence, Discourse, Learning

K&1: Narrative
1. Expressive elaboration
2. Temporal, causal & adversative conjunctions
3. Episodic structure
4. Phonemic awareness

2&3: Narrative
1. Expanded noun phrases
2. Pronominal cohesion
3. Expressive elaboration
4. Word inferencing strategy

4&5: Expository
1. Morphological analysis word strategy
2. Relative clause subordination
3. Description and procedure discourse structure
4. Text preview and lookback strategies

6&7: Expository
1. Morphological analysis of science words
2. Preposed adverbials
3. Claim & evidence discourse structure
4. Note-taking and verbal rehearsal strategies

What is a Comprehension Strategy?
- Action selected deliberately to achieve particular goal
- Heuristic: Short-term, general problem-solving procedure that highlights info and guides attentional focus
- Like skills, can be applied for many reasons including expertise, repeated practice, compliance with directions, luck, and naïve use (Paris et al., 1991, p. 611)

SO: Strategic use of strategies


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

Willingham (2006)
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...

**Skills & Strategies: Two Sides of the Coin**

- **Strategy**: Conscious, deliberate, effortful use of a mental action to achieve a goal
- **Skills**: resurface as strategies in times of challenge or for inspection and modification
- **Skill**: Unconscious, automatic, fluent use of a mental action to achieve a goal

*Purposeful Strategic Reading*

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

*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

*Selecting Tx Strategies (or Skills)*

NRP (2000), (Kamil et al., 2008):
- 4 types of reading strategies with firm scientific basis:
  1. Comprehension monitoring
  2. Question generation
  3. Summarization
  4. Paraphrasing
- Plus word learning strategies of using context cues and reference skills

*More Specifically*

- Specific prompts with set wording
  - Text ideas (e.g., *What is the main idea of this paragraph? What is the difference between this idea and the preceding idea?*)
  - 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 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 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>
</tr>
<tr>
<td>W</td>
<td>While reading think about</td>
<td>Reading speed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Linking what you know</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rereading parts</td>
</tr>
<tr>
<td>A</td>
<td>After reading think about</td>
<td>The main idea</td>
</tr>
<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)

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 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 modeling
  1. Before sts read, demo how to read for X purpose
  2. During read, demo at designated stopping pts or when students have difficulties
  3. After read, review performance and demo more effective use of 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)

- Q: Content vs strategy instruction for rdg compreh?
- Six 5th gr classrooms for schlr yr in 3 conditions:
  1. **Content**: Sts read passage aloud and discuss what author says at key pts (e.g., when major character introduced, important event occurred, or confusing statement made)
  2. **Strategy**: Teach to summarize, predict, infer, ask qns, and monitor compreh + 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 comprehention and mental discourse templates

BUT strategies condition had split focus

I.e. Teach strategies on short texts separate from main lesson, then intro in content lesson in natural opps

⇒ SLPs!

Contextualized Strategy Intervention

Systematic Tx of Strategies with Attention to Context & Ownership

Quality SLP Tx: RISE+

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

Structural Scaffolds through Text Selection & Modification

1. **Narrative text**: Iding characters or motivations
2. **Informational text**: Iding 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

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

Structural Scaffolding – Managing Text Difficulty
Armadillo Excerpt
http://a-z-animals.com/animals/

The armadillo is native to both North America and South America, although only one species of armadillo is found in the United States.

The average armadillo measures around 75cm in length, including the tail, but the giant armadillo can grow to more than 1.8m long and the miniature pygmy armadillo (the smallest armadillo known) only gets to around 75cm in length.

There are around 25 species of armadillo still extant in the Americas, with the giant armadillo being the only one found outside of the South American tropics.

The armadillo has a hard outer shell and can curl up into a ball, leaving no soft body parts exposed to danger. In fact, a woodchuck. The armadillo also has long claws which the armadillo uses for digging burrows and hunting for insects, as the earthworm. Despite the armadillo's odd shape, most armadillos can also reach a top speed of nearly 19 mph to run away from predators. The primary predators of the armadillo are bears, opossums, and coyotes.

Kingdom: Animalia
Phylum: Chordata
Class: Mammalia
Order: Cingulata
Family: Dasypodidae
Genus: Dasypus

Scientific Name: Dasypus novemcinctus

Tips:
- Material: Edible: All parts
- Size: 36cm – 75cm
- Weight: 5kg – 30kg
- Habitat: Rainforests

QuickRead Reading Fluency Passages

Finding Out About Dinosaurs

How do we know that dinosaurs lived long, long ago? There are people who don’t believe dinosaurs exist. They are called “paleontologists.” Paleontologists learn about dinosaurs from fossils. Fossils are the things that lived long ago, such as dinosaurs, bees, and ants. Paleontologists find fossils under the ground and look at them to learn about dinosaurs. Paleontologists dig in the ground and look at stones to find fossils. By looking at fossils, paleontologists can learn a dinosaur was small or large. Results also help paleontologists learn where a dinosaur lived on land, how fast it moved, and what it ate.

Hiebert (2002)
www.pearsonlearning.com

QuickRead Level C Topics

Book 1
Dinosaurs
Animal Giants
Plants

Book 2
Hurricanes
Earthquakes
The Solar System

Book 3
Inventions
Simple Machines
Sound

Regulatory: Systematic decrease in support and handover to child

Interactive Scaffolding
- Responsive dynamic moves of skilled clinician
  - Matched to child need & task difficulty
  - Systematic decrease in support and handover to child
- Linguistic: giving info to help child create better response; what you learned about early grammar tx applied to other tx skills
- Regulatory: control behv & attng, gain responses, facilitate self-control
  - Internalization of behaviors and strategies
  - Automatization of behv & strategies into skills

Stepped Down ReadWorks Passage
http://www.readworks.org/
https://lexile.com/analyze

The Young Scout troop went on a camping trip one weekend. The 12 boys and their patrol leader went into the woods close to their home city of Sacramento, California. They had many activities planned. The boys were going to learn how to put up tents and how to cook on a fire. They were also going to learn about wood carving and panning.

Panning has a long history. It has been used for hundreds of years to find rocks, minerals, and precious metals in rivers. It is a simple process. The first step is to dip a large pan into a river. As you dip the pan, you allow water, dirt, and stones to gather in it. Then you pull the pan out of the river and shake it. The pan has either small holes or long slits in it that let the water escape. But the rocks will stay in the pan. There is always a chance that some of those rocks could be worth a lot of money. One might even be a golden nugget.

Panning for History
Michael Stahl

ReadWorks Passages

Subject: History
Genre: Informational (+Narrative)
Grade: 6-7
Lexile: 1040

The Young Scout troop went on a camping trip one weekend. The 12 boys and their patrol leader went into the woods close to their home city of Sacramento, California. They had many activities planned. The boys were going to learn about pitching tents, cooking on a fire, wood carving, and, because there was a river close by, panning.

Panning is simple and has a long history. It has been used for centuries to find rocks, minerals, and rich ores in the gold rush. All a person has to do is dip a large pan into a river, allow water, dirt, and stones to collect in it, and then shake. The pan can either have tiny holes or lengthy slits that will allow the water to escape, while leaving the rocks behind. There is always a chance that you might find a rock that might actually be very valuable. One might even be a golden nugget!
**Linguistic & Regulatory Scaffolds**

- Model 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 (student qn shifted to peer using the structure)
  - Wait expectantly for response
  - Ask indirect question
  - Ask direct question
  - Repeat directive
  - Use physical signal to cue response
  - Maintain student awareness of goal
  - Relate content to past learning
  - Comment on task similarities
  - Inhibit impulsive responding
  - Aid selective & sustained attention
  - Help student manage challenge
  - Aid self-review of performance

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**Interactive Scaffolding of Summarizing**

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.

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**Internalization Process**

- Adult regulation of task execution
  - Student’s conscious self talk for careful execution, either external or internal
  - Resurface inner voice in times of challenge or change
  - Automatization of self talk for fluent, skilled execution

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**STOP – Whose Strategy Is It?**

- Strategy: teaching tool vs. learning tool
  - All grouped as “instructional strategies”
  - Who is using the strategy? What is the tx goal?
- SLP using the strategy to teach concept or skill? Or SLP teaching student to use the strategy?
- Many tx studies for younger stts do not systematically scaffold to independence
- Tx research for older stts often has some guided and independent practice, but instruction and outcome rarely address
  - self-directed use in the classroom

---

**SLP: Today we are going to practice the summarization strategy. Ali, why do we do this?**

Ali: Because it helps us understand what we hear and read.

SLP: Megan, what is summarizing?

Ali: Telling the most important stuff.

SLP: Megan, what is a better word than stuff?

Ali: Ideas. Telling the most important ideas.

SLP: Yes, the main idea plus important details. Joe, tell us the main idea.

Joe: Scientists.

SLP: Is that enough? Tell us more. What are scientists doing? Tell us a in a sentence.

Joe: Scientists are finding new stuff about raptors.

SLP: Yes, scientists are finding new information about raptors.

---

**SLP: Joe, show everyone where you found that information. Joe: In the first sentence here, but I changed the words a bit.**

SLP: Ezra, what are two details?

Ezra: (silence)

SLP: Meg, where can show him to help?

Meg: Look here and here (pointing to text).

Ezra: Oh, they found new fossils and they changed their ideas.

SLP: Yes, those are two important details. What is next?

Meg: We put together the main idea and details for a summary.

SLP: Okay, let’s do it. Each person re-state one part of the summary and I will write it out. Let’s start with the main idea topic sentence.
Strategic Reading is Hard --

- August et al. (1984): Strong & weak 5th gr, story missing a pg: more skillful slowed rdg & looked back
  - Half children in both groups did not report a problem and both made non-warranted fill-in inferences
- Garner & Reis (1981): Strong & weak 4th-10th gr on look-back for open-book text 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
- Wiley et al. (2005): Across research, even adults poor at monitoring own comprehension beyond basic recall

The Challenge of Student Ownership

Chan & 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

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

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

Novels < Informational Books < Magazines < Websites

Signal Use Expectations

Read the index below from 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 info about food in colonial times, where is the BEST place to look?
   a. page 6   c. page 23
   b. 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.

NECAP 2005 Gr4 Rdg Expectations
www.narragansett.k12.ri.us/resources/necap%20support/gle_support/reading/end4/a_brick.htm
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.

Text Preview

- Intentionally familiarizing with text organization and how to locate info for purpose
  1. Why am I looking at this text
  2. What do I look for in this text
- Older good learners do preparatory work habitually
- Weaker learners just a “how much” strategy
- Classroom use (Kelley & Clausen-Grace, 2010)
  1. Picture walk to preview story books
  2. Text feature walk for chapter books or info texts
- Applicable to internet: organization, menus, navigational tools, info location

Benefits of Habitual Text Preview

- Passive recipient moves to active participant in learning
- Alerts and familiarizes to content and format of material
- Allows judgments of utility of text vs. time and effort to understand or find specific info
- Activates mental schema
  - Text structure (e.g., This is an opinion article)
  - 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”

Teaching Text Preview Study

Kelley and Clausen-Grace (2008)

1. **Qn:** Effect of text preview for reading comprehension?
2. **Method:** 4th graders stratified by reading level and randomly assigned to 3 conditions:
   - Control: Write predictions about human body from science text, read silently, answered qns
   - Discussion: Talk about human body with textbook closed; predicted, read, and answered qns
   - Text preview: Text feature walk prior to writing predictions, rdg text, and answering qns
3. **Results:** Text preview > prediction-and-read-only > discussion

Text Preview Tx: Identify Signal Devices

1. Intro text and tx goal
2. Identify type of text
3. Identify purpose of rdg
4. Travel through text
   - Topics covered
   - How organized
   - What shows important points
   - Summary locations
   - Signal labels
5. Check-off list for features
6. Match types to uses
**Text Preview Tx: Use Text Features**

1. Review types and uses
2. SLP cognitive model thru think-aloud
   - ID text and purpose
   - What to look for
   - Which signals present
   - What message signals
   - Whether helpful
3. Using same text and purpose, student with SLP support
4. Share in reading text, then return to predictions to confirm or modify
5. Repeat with new source or new purpose
6. Embed use in a purposeful project

**Text Look-Back**

Companion to Text Preview
But maybe harder to learn do to well

1. Awareness of gap in comprehension or recall
   - Poor learners often overestimate
2. Determination that info likely in the text
   - Based on prior reading – or just a good bet
3. Efficient (and permissible) text search procedure
   - Avoiding random wanderings

**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
   - Examine 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 info
   - Students not good at stepping outside content to make “meta” judgments about relevance of info

**Tx Awareness of Signal Utility**

- Some books provide a lot of organizational guidance and others provide little or confusing “help”
- Some text features detract from message
  - Abundance of boxed words
  - Highlighting appealing but trivial statements
  - Heading – content mismatch
- Concluding paragraphs may speculate beyond what discussed
- Opening paragraphs may lack purpose statements or use uninformative or distracting “hooks”
- *Part of close reading and evidence-based learning*
Text Preview & Lookback Tx: Application

Travel from simple & clear to curricular & "real"

1. Texts
   - Familiar and new content and form
   - Textbooks, chapters, articles
   - Print and online
   - Signals as help or hindrance
   - Texts with poorly organized content

2. Purposes

3. In-head vs in-book qns

4. Handover & ownership
   - Coach classroom applications
   - Answer their own study questions

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

Text Structure Awareness

Noticing narrative or expository structure during reading
- 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 monitor and improve indep rdg compreh by identifying elements of setting and episode,
  - Stop at designated pts in rdg to write elements in 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
**Text Analysis and Webbing**

Erin Page, SLP with high schol student

**Close Reading and Answering**

**Summarization as a Comprehension Strategy**

- Common evidence-based comprehension “strategy”
- Teaching sts to periodically stop and summarize paragraphs, sections, chapters, and articles
  
  - Just summarize it
    - Components?
    - Steps?
    - Skills?

**Summary Instruction Variations**

1. **Gist:** Read paragraph one line at a time and gradually compose single long sentence that encapsulates idea expressed in each line of paragraph
2. **Rule-governed:** Identify and select or infer topic statement, supporting, redundant, and irrelevant statements, 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. Renumber points in logical order
8. Write points into paragraph in numbered order
9. (Add connective words to make it flow)

• Summarization procedures hinge on identifying a main idea
• Wong et al. (1986), in a multiple baseline design, investigated teaching eight 7th grade students to compose well-structured summaries
• Sts told to underline and paraphrase the main idea of simple paragraphs ➤ identified 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.

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
Wong et al. (1986)
• 1 mth for stes 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 1 mth post-tx + 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

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 dinosaur teeth tells 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 tells us what they ate. Meat-eaters had long, sharp teeth.
Finding Implicit Main Ideas

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.

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 Tx Goals – Trying to Tap the Process

1. Johanna will improve comprehension by highlighting and graphical mapping with minimal support to comprehend science texts at 80% accuracy of strategy use and content recall based on SLP data
2. Johan will improve expository writing by independently using concise, organized bulleted notes from social studies texts...
3. John will use learning strategies of text preview and lookback to identify key info in grade-level textbooks...
4. Jo will select the approach to reading an expository text based on the stated purpose...

Baseline & Progress Data

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

• 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 student’s actions & notes during reading
3. Student think-alouds during the learning task
4. Interview student after a learning task
5. Observe lesson for strategy opportunity
6. Ask teacher to embed qn or scenario that would benefit from strategy use
7. Ask student about class assignment and strategies used

Note-Taking as Gateway to Other Skills & Strategies

• Note taking “strategy” involves
  – Knowledge selection, recall, and organization
  – Close reading for literal and inferential comprehension
  – Staying on topic to accomplish a project
  – Applicable across subject areas and tasks
• Reducing and expanding process → language skills & knowledge + other comprehension strategies
  – Comprehension monitoring & qn generation
  – Summarization & paraphrasing
  – Using context cues for meaning

But Good Note-Taking is Hard...

• Taking notes on key info improves reading comprehension (Graham & Hebert, 2011; Hebert et al., 2014)
  – Compared to just re-reading an article
  – Compared to writing an essay about the article
• But note-taking is hard even for typical achievers and with instruction
  – 4th gr notes = little info; on only one aspect; ignore whole sections; include all or most or superfluous info; write connected text
• Small gains, but Graham & Hebert had only one whole-class lesson on note-taking
  
  Can SLPs do better?

Revisiting A Notation Tool: Pictography

• Quick & easy
• Just enough to remember
• Easy to learn & use
• Coherent sequential telling
• Complex story structure
• Content focus
• Recall, revision, extension
• Pictog > writing or drawing for length & quality


The Sneak – Student-Devised Key Word Plans

Inspired by some strategic learners and their sneaky shortcut
And a little choreographer...

Co-conspirator
Catherine Ross, MS,
CCC-SLP
Aims of Speak-and-Sketch

- Teach pictography, bulleted notes, oral rehearsal
- Applied to expository article comprehension → oral and written expression → expository comprehension

- Whose strategy is it?
  1. Used on an ongoing basis by SLP to help student learn particular content and to improve receptive and expressive language skills
  2. SLP teaches student to use for own learning in classroom activities, such as using info from articles to create presentations and projects

Pilot Work on Speak-and-Sketch Note-Taking Tx

- Based on prior research evidence and clinical expertise
- Ross and Ukrainetz explored tx ideas in UWyo clinic
  - gr2-12 language clients
  - Used in diverse ways by grad students
  - For longer durations
  - With extended writing
  - Embedded in science projects
- Piloted dx, bx, and recording procedures
  - Two typically-achieving gr 6/7 girls
  - UWyo clinic setting

Speak-and-Sketch Note-Taking Tx

- From read-aloud complex expository texts
- Quick & easy pictography of ideas extracted from text
- Turned into concise, informative bulleted notes
- Oral rehearsal of fluent, well-formed sentences & reports
- Scaffolded with models, prompts, revisions & repetitions

→ Improve speaking, writing and comprehension?
Group Experimental Tx Study

- For 44 gr4th-6th with language-related learning dis
  - Primary: SLI, SLD, OHI
  - No intellectual disability, autism, emotional disability
- Effect of speak-and-sketch tx
  - 3 hrs of tx by 9 school SLPs
  - Grade-level unusual animal science texts
- Compared to no-tx control condition
  - Randomized with balance for grade, CELF, services, ethnicity, gender, free/reduced lunch
- On grade-level historical people texts?
  - Notes on 2-column form, oral and written reports from notes, recall/comprehension test
  - SLP tx perceptions

Speak-and-Sketch Tx

<table>
<thead>
<tr>
<th>Pictography Notes</th>
<th>Bulleted Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session 1</strong></td>
<td><strong>Session 2</strong></td>
</tr>
<tr>
<td>Preview &amp; review learning</td>
<td></td>
</tr>
<tr>
<td>1. Read aloud some &amp; locate some important or interesting ideas on 2-column notes</td>
<td></td>
</tr>
<tr>
<td>2. Start over, do pictography: Quick &amp; easy, just enough to remember</td>
<td></td>
</tr>
<tr>
<td>3. Say it fully, then say it again</td>
<td></td>
</tr>
<tr>
<td>4. Revise if needed &amp; say it again</td>
<td></td>
</tr>
<tr>
<td>5. Say full report from pictography</td>
<td></td>
</tr>
<tr>
<td><strong>Article A</strong></td>
<td></td>
</tr>
<tr>
<td>Session 3</td>
<td>Session 4</td>
</tr>
<tr>
<td>Same as Session 1</td>
<td>Same as Session 2, #1-4</td>
</tr>
<tr>
<td><strong>Article B</strong></td>
<td></td>
</tr>
<tr>
<td>Session 5</td>
<td>Session 6</td>
</tr>
<tr>
<td>Same as Session 1</td>
<td></td>
</tr>
<tr>
<td><strong>Article C</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Dictate written report from notes</td>
</tr>
<tr>
<td></td>
<td>6. Compare report to article &amp; notes</td>
</tr>
</tbody>
</table>

The cassowary is a species of large flightless bird. It is found in northeastern Australia and the island of New Guinea. The cassowary is closely related to emus and ostriches. It is the third tallest and second heaviest bird in the world...

The axolotl, or Mexican salamander is found naturally only in two connected lakes in southcentral Mexico. It is also kept as a popular freshwater aquarium pet. Axolotls are sometimes called Mexican walking fish because they look like fish with legs...

The Aye-aye is a species of lemur that inhabits the rainforests of Madagascar. Madagascar is a huge island near the southeast coast of Africa. The Aye-Aye is the world’s largest nocturnal primate. They are not dangerous, but are feared by local people...

Tx S1: Teaching Pictography

Quick & Easy
Just Enough to Remember

Tx S3: Oral Report from Pictography
Preliminary Results

Independent average post-test performance:

1. YES: Form of notes with bulleted key words & phrases
2. YES: Structure of oral reports with openings, closings, category statements, fewer extraneous comments
3. YES: Vocabulary, grammar, quantity, quality of oral reports from 4 pictographers
4. NO: Vocabulary or grammar of oral reports
5. NO: Written reports or comprehension

Beyond Group Averages:

Two Case Studies

Student #A – Learning Strategies & Language Skills

Student #B – Learning Strategies & Self-Regulation

Student #A – Journey Through Tx

#A – Tx Pictography & Notes
This is what I learned about the axolotl. The axolotl lives in two lakes in Mexico. The axolotl breathes underwater. Also the axolotl lives in fresh water in an aquarium. Axolotl looks like a fish that has legs. And the axolotl blends in to stuff because of its camouflage. The axolotl eats worms small fish and crabs. The axolotl don't chew their food but they suck it whole. The axolotl female lays about one hundred eggs to one thousand eggs. People research about the axolotl. I hope you learned something new.

Student #B – Planning & Organization Before & After

Pre-test
- MLU 6.38
- NTW 51 NDW 35
- Categories
- No Info-E or Extraneous

Post-test
- MLU 8.33
- NTW 100 NDW 65
- Open, close, topic, categories
- Info-E but no Extraneous

3/3 rated Post a little better

Evidence-Based Practice: Clinical Expert Judgments of Speak-and-Sketch Tx

Thematic Analysis of 11 SLP Reflection Papers

How Did the Students Benefit?

- Allowed the students to organize their details and thoughts in a unique way in order to first produce complete sentences, paragraphs, and reports, and secondly to remember these reports after a few days
- On the last week of tx, X demonstrated more confidence in his ability to pick out important details, sketch, and present an oral report... he dictated his oral report it was organized with opening and ending statements, and full sentences.
- One 6th grade student who is at a 1st gr reading level was able to dictate a half-page report from one of the original tx passages which was more independent output than he has been able to make all year

#A – Final Dictated Report in Tx

#A – Posttest Notes & Written Report

#B – A Natural Improving His Oral Performance
Why The Tx Benefit? Simplicity

- It isn't complicated. Students appeared to quickly grasp how the process worked. This seems crucial to the idea of carry over. If they are going to be using this strategy on their own, it has to be simple enough to remember and not require significant materials.
- This form of notes was so quickly done and more easily remembered by children who generally do not have the skills to take ‘standard notes’, let alone to do so fast enough.
- The general simplicity, while rule based and deeply-seeded in the clinician’s knowledge of language and development, of the treatment procedure and how easy it was for my students to access, despite their difficulties with language.

Why The Benefit? Quick & Easy Visuals

- Sometimes, I couldn’t read their drawings very well… they always remembered the info represented by their quick and easy pictures.
- Grasp[ed] the pictography strategy relatively quickly in the first session. She seemed to enjoy coming up with the quick pictures.
- With the focus on ‘quick and easy, just enough to remember,’ many of my students who typically lose focus were more able to come up with a picture or a few words to use for their notes.
- Pictography strategy helped kids remember the meanings of words such as “nocturnal” and “amphibian.”

Why the Benefit? Oral Practice

- Modeling sentence structure has always been a part of my practice, but to see the benefit of the student’s continued repeated practice of complete sentences was eye opening… The more practice they received, the more complex their sentences appeared to become.
- The oral practice phase. A concept I grasped well for younger learners… [verbally] using sequence words like ‘first, then’ before they could use these concepts in their writing. However, I was failing to understand how this concept looked for older students. The oral practice piece of this intervention was the answer and it makes so much sense.
- Having the student practice the full sentence until a good grammatical sentence was achieved…it paid off for the students when giving the full report.

Why The Benefit? Visible Progress & Student Engagement

- Once a well-formed sentence was established, the student took ownership of the sentence and successfully implemented these complete sentences in well-formed oral reports.
- Rapidly gained confidence in their story retell skills. I could literally see them gaining confidence in their academic skills during the sessions.
- Students engaged in learning and excited about the progress… they were able to see great success progressing through the steps of the process.

One SLP’s View: Strategies & Repetition → Confidence

The repeated oral practice appeared to build the confidence of both students. When initially starting the study, the students were overwhelmed by the length and complexity of the articles.

With the repetition and strategies, by the third article each student was eager to not only tackle the article and learn about the interesting animal, they also immediately identified details with more independence and overall confidence.

With this increase in confidence, the students included additional details compared to previous sessions and spoke in complete sentences with an awareness of what they were verbalizing... increase in the fluidity and naturalness of the presentations... eagerness to do well.

Connecting to the Classroom

- Bridge some gaps between the tx setting and actual classroom skills and assignments... potential to positively change my delivery of services for the intermediate population as they delve into more complex texts and higher expectations for their oral output.
- Collaborating with those teachers about an upcoming project, using the classroom resources in therapy, and using this strategy to create the finished project would be incredibly helpful and successful.
- 6th graders not in the study… use of the strategies on a social studies worksheet about the Egyptians and did so with great success… willing to bet that they did a great job retaining the info about the Egyptians.
A Final Thought: SLP as Writing Interventionist

So many of our students are reluctant writers. Before understanding how this process worked, I was leery that I would be attempting to be the ‘writing teacher’, which is an area where I am uncomfortable.

However, I was pleasantly surprised to discover that the writing aspect of this process was not the main focus. In fact, the final writing project flowed very smoothly from the previous steps. It wasn’t an additional, huge writing assignment to tackle, but a finished product that flowed naturally from the notes and oral practice stages.

References

Comprehension Tx – Strategic Teaching and Learning

• Aim of noticeable change in significant communicative events
• Key elements of RISE+
• Stay on topic in whole-part tx
• Extended tx of concepts and skills with more complicated procedures/procedures
• Shorter tx of simple learning strategies/tools toward independent, habitual use for learning and enjoyment


Making Sense of Speak-and-Sketch Tx

• Across clinic and school, grades, abilities, & situations
  – Key elements: pictography, bulleted notes, oral rehearsal, repetition with scaffolding
  – Tgx academic concepts and skills, appears to be YES
  – But for student learning strategies, not so much, yet...
• Improvements?
  – More oral rehearsal of established sentences
  – Longer tx with more coaching of strategy use
  – Embedding key tx elements in projects
  – Testing and scoring
• You can use words or pictures to make your notes
• Few, long, verbishin sentences vs. many concise notes
• Interview about strategy use

Swanson, E. et al. (2014). Meta-analysis of rdg interv using social studies content for st's w/ LD. J Learn Dis 47, 178-105.