Expository Intervention:
Strategic Teaching and Learning of Informational Discourse

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Text Comprehension:
Scaffolding Strategic Learners - Strategically

1. Comprehension scope & expectations
2. Effective instruction & role of SLP
3. Contextualized skill intervention
4. Teaching vs learning intervention
5. Simple learning strategies
6. Harder-to-learn strategies
7. My text strategy explorations

For More Ideas & Information

What is “Reading Comprehension”?

Understanding what is read (and heard)
And learning from what is understood
Developed through reading, writing, speaking, & listening
Revealed through circling answers but also through writing & speaking

Ways of Cutting up The Reading Pie

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

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

Comprehension

Van Riper Speaker Series
Western Michigan University
Kalamazoo, October, 2018
Critical Thinking

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 ≠ Just “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


Reading & Comprehension

Reading ≠ Text

- Print
  - Discourse
  - Carrier of communication
- 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


Ways of Reading

- Gist reading for impressions
- Close reading for textual evidence
- Strategic reading for specific info
- Which to choose?
  - Reader style
  - Activity purpose
  - +/- classroom conditions

Comprehension > The Person

Reader
- Abilities, knowledge, effort, attitude
- Print size, lighting, distractions

Activity
- Purpose of reading

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

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 bet 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, 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 point of view or purpose
5. Analyze texts with conflicting info and disagreements on fact or interpretation

Common Core State Standards (2010)

High School and College: Disciplinary Literacy

- Literature, sciences, maths, history, social studies....
- How to make sense of texts w/i 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


Common Core: Proficient Learners

- Understand, produce, & evaluate literary and informational texts
- Persuade, explain, convey experience
- Strong general and domain knowledge
- Advanced texts at high levels of proficiency
- Close reading & textual evidence over personal connections
- Self-directed learners who read purposefully, ask questions, and seek out resources
- Graduate career and college-ready

Calkins et al. (2012), NCA-CCSSO (2010), http://www.corestandards.org

What is Expected of Students and Educators?

And, how well do grown-ups read anyway?
Text Comprehension Tx

U.S. Reading Achievement

- 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

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
  1. I am not a reading teacher
  2. I need to get through the curriculum
  3. The students need to know basics before this tough stuff
  4. 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

To grow, our students must read lots. More specifically, they must read lots of “complex” texts—texts that offer them new language, new knowledge, and new modes of thought.

Adult Literacy: Beyond the Finish Line

- Illiterate: Significant degree of insufficiency in reading
- Rates of adult illiteracy depend on operationalization
  1. Recognize unfamiliar printed words or write own name
  2. Some number of years of schooling
  3. Some standard based on needs of daily life
- 2003 US adult illiteracy rate of 98%:
  1. CIA World FactBook: 5 yrs of schooling
  2. 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 pamphlets, TV guides)
  1. 14% below basic; of those, 45% HS degree or GED
  2. 5% of 16-18 yrs, 25% of >25 yrs (also 1992 NAAL)

- Proficient = Synthesize and analyze complex prose and docs
  1. Compare views in editorials or interpret table of blood pressure, age, and physical activity
  2. 5% of adults with high schol and GED
  3. 33% of college graduates
Effective Comprehension Instruction

Effective SLP Intervention

Successful Features of Instruction
Kamil et al. (2008) systematic research review, 28th grade:
1. Explicit vocabulary instruction Strong
2. Direct comprehension strategy instruction Strong
3. Extended discussion of text meaning & interpretation Mod
4. Increasing student motivation & engagement Mod
5. Plus, for struggling readers, treatment Strong

Strong = well-designed controlled trials, no contradictory evidence
Moderate = multiple studies, no contradictory evidence, 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 Comprehension Thru Talk
Clarke et al. (2010) randomized group study on benefit of oral language tx
- N = 160 8-9yrs with specific comprehension deficits
- Conditions:
  1. READ: written text + 9 strategies
  2. ORAL: oral discourse + 4 strategies + vocabulary
  3. BOTH: combo at faster rate
  4. WAIT: waitlist control
- 30hr of 3x30min indtx with pre-, mid-, post-test, & 11 mo f/u
- Results:
  - All tx conds > WAIT
  - ORAL & COMBO > READ on vocab
  - ORAL + READ & COMBO at f/u on compre & 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
Topical Coherence for Learning

- 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; Common Core, 2010)

But Who Should Do It?

- The lines don’t exist almost between any of our jobs anymore
- What I see happen in the resource room is that they’re not taught any strategies, they’re just taught how to maintain. You’ve got a test coming up, let’s all study… But as far as a strategy to help them on the next test, I don’t see that the resource teachers have any time for that. They’re doing all they can do to just to help the kids pass. Whereas I can have time to teach the strategy that they may eventually use. Nobody else is doing that.
- Great because we can go in there and ask her [the SLP] things, she figures out things, she can analyze something

Ukrainetz & Pinnow, 2013

Staying on Topic Across Grades

<table>
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<tr>
<th>1</th>
<th>2-3</th>
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<tbody>
<tr>
<td>4-5</td>
<td>6</td>
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</tbody>
</table>

- The five senses and associated body parts
  - My Five Senses by Ake (1980)
  - Hearing by Maria Rius (1982)
  - Sight by Maria Rius (1981)
  - Taste by Maria Rius (1986)
  - Touch by Maria Rius (1986)

- Taking care of your body: Overview (hygiene, diet, exercise, etc.)
  - Get Up and Go by Nancy Carlson (2006)
  - Go Wash Up by Doreen Touville (2006)
  - Sleep by Paul Showers (1997)
  - Eat the Body by Doreen Touville (2006)

- Introduction to the systems of the human body and associated body parts
  - Under Your Skin: Your Amazing Body by Dick Manning (2007)
  - Me and My Amazing Body by Joan Swinney (1999)
  - The Human Body by Goldynr Jeanette (2007)
  - Taking care of your body: Germs, diseases, and preventing illness
    - Germs Make Me Sick by Marilyn Berger (1996)
    - Tiny Life or Your Body by Christine Taylor-Ball (2005)
    - Germ Stories by Arthur Kornberg (2007)
    - All About Skin by Geraldine Hour (1998)

- Digestive and circulatory systems
  - What Happens in a Restaurant by Paul Showers (1983)
  - The Digestive System by Christine Taylor-Ball (2006)
  - The Digestive System by Rebecca L. Jolivet (2004)
  - The Digestive System by Ihnen Petra (2007)
  - Taking care of your body: Healthy eating and nutrition
    - Good Enough by Maria L. Rockwell (1995)
    - Showdown at the Food Pyramid by Rex Barson (2004)
  - Muscles, skeleton, and brain systems
    - The Highly Specialized Skeletal System by Pat Thomas (2003)
    - The Body System by Corinne Small (1998)
    - Bones & Muscles: A Guidebook by Mary Jo 

Reading (& Writing) Intervention Can Be Effective

For students with low ach or LD:

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

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

SLPs as Learning Interventionists

- SLP Orientation
  - Individualized problem-solving orientation
  - Underlying processes, skills, & strategies
  - Freedom from but connected to classroom & curriculum

- SLP Instruction
  - Oral & written language through talking & listening
  - Systematic, individualized tx for select skills
  - Repeated obs for learning and practice

- SLP Service Delivery
  - Pull-out for focused learning and practice
  - In-class for application and automation
What Can SLPs Do?
1. Knowledge and use of vocabulary, grammar, discourse
2. Metalinguistics, cognitive processes, executive function
3. Word and text comprehension strategies
4. Curricular compensations and modifications
5. Classroom discourse of didactic lessons, group projects, book discussions ...

... typical language tx goals fall within typical reading comprehension needs
But an SLP cannot do ALL...

What Should SLPs Do?
Small array of time-limited, integrated treatment targets
- Txs 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 topically-linked activities
Select 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. Yummy words
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. 619)

... Strategic use of strategies
Stategic Reading of Tough Stuff

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...

TWA: Strategy Mnemonic 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>

Skills & Strategies: Two Sides of the Coin

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Skills</th>
<th>Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conscious, deliberate, effortful use of a mental action to achieve a goal</td>
<td>resurface as strategies in times of challenge or for inspection and modification</td>
<td>Unconscious, automatic, fluent use of a mental action to achieve a goal</td>
</tr>
</tbody>
</table>

Purposeful Strategic Reading

Bazerman (1985): Physicists reading physics

- 7 physicists perusing journal articles
- Think-alouds
- 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 & Strategies

Knowing When to Use What Strategies Why and How And when to just sit back and read a good book.

**Frequent skillful reading and listening**
Fluent, automatic, easy, and enjoyable

**Occasional strategic reading and listening**
Effortful but worthwhile for learning and change

**Strategic and skillful** readers and listeners for learning and pleasure
Selecting Tx Strategies

NRP (2000), (Kamil et al., 2008):
- Reading strategy types 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

But that doesn’t narrow it down much...

More Specific Guidance

- Good:
  1. Have specific prompts with set wording for text ideas & structure
  2. What is the main idea of this paragraph? What is the difference between these two ideas?
  3. What was the problem in this story? Can you tell where in the story the problem was resolved?
- Self-monitor speed and re-read parts
- Not-so-good:
  1. Generate own qns about perceived importance to others
  2. Generate qns crafted to each text content
  3. Ask clarification questions about unclear text
  4. Make predictions about upcoming text

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.

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
5. Controlling task difficulty
6. Using small interactive groups
7. Students using specific strategy format
- Coaching into fairly independent use in varied contexts

Keep Your Balance

Contextualized Strategy Intervention

Systematic Tx
Use in Context & Ownership
Key Quality Features for Learning

1. Contextualized > Decontextualized
   - Discrete skill tx → Gains in taught tasks, but low generalization
   - Naturalistic tx → Smaller gains, but better generalization

2. Systematic, focused attn > Noise of daily life
   - Intensive, focus attention, present multiple trials, vary task complexity, systematically reward progress (Gillam et al., 2001; Gillam et al., 2008)
   - Consistent target input, high variability in non-target input, limit counter-examples, provide adequate dosage, retrieve from memory repeatedly (Alt, 2018; Plante & Gomez, 2018)

Contextualizing Tx

- Context = how tx links to use in activities beyond tx
- Tx with simplified but whole communication events
- Linked to classroom, curriculum, academic standards
- Through skills, topics, purposes, activities
- Look for context links
- Observe classroom
- Talk to teachers and students
- Look at academic standards
- Look at lessons, interactions, materials...
- Engineer to systematically treat particular skills
- Not just language enrichment
- Not helping get schoolwork done

In-Class Strategy Instruction?

McKeown, Beck, & Blake (2009)

► Qn: Content vs strategy instruction for rdg comprh?
► Six 5th gr classrooms for schl yr in 3 conditions:
  1. Content: Read passage aloud and discuss what author says at key pts (e.g., major character introduced, important event occurred, confusing statement made)
  2. Strategy: Teach to summarize, predict, infer, ask qns, monitor comprh + understand story content
  3. Basal text: Teacher asks content qns from basal texts

► Results:
  1. Big improvement for all conditions, incl comprh monitoring and recog of better summaries and inferences
  2. Some measures better for single-focus content condition
     i.e., Rec teaching strategies on short texts separate from main lesson, then embed in content lesson

Critical Features of Skill Instruction

Repeated opportunities for learning & practice
Intensity of scheduling
Systematic structural and interactive support
Explicit focus on select skills
+ Learner factor: Attention, Motivation, & Engagement

Scaffolding thru Cognitive Modeling

► Think-aloud as you read aloud:
   - Demonstrate process of when, why, and how to get to the what
► Preparation for modeling
  1. Consider text from student perspective
  2. Check text matches target strategies
  3. Plan designated points before, during, after text
  4. Practice reading, stopping, talking aloud with target strategy use
► Doing Modeling
   - Minimize explanations
   - Show and re-show
   - Apprentice the student into learning strategies

SLP Cognitive Modeling

Word Inferencing Strategy

An understanding of the ontogeny of mandibular motor control is critical to a more general understanding of the neurophysiologic basis for the development of speech, chewing, and sucking. There is a lack of uniformity in researchers’ understanding of emerging motor control that underlies speech and early alimentary behaviors, which precludes a complete model of communication development.

From Steeve et al. (2008, p. 1390, JSLHR)
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, websites match classroom topics or student interests
6. Modify texts: Systematic changes to simplify or to add confusing or missing elements

Quick Read Reading Fluency

Passages: Re-purposed

Finding Out About Dinosaurs

How do we know that dinosaurs lived long ago? There are people who find out about dinosaurs. 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 in the ground and can be used to make fossils.

QuickRead Level C Topics

<table>
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<td>Our National Government</td>
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<td>Book 3 Inventions Simple Machines</td>
<td>Ancient Egypt</td>
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<td>Sound</td>
<td>The Ways We Communicate</td>
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<td>Native Americans</td>
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QuickRead Level C Topics

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 1,5m long and weigh up to 250kg! The smallest armadillo species reach 20cm in length.

There are around 19 species of armadillo still extant on the American continent with the Xenarthra order being the only species remaining outside of the South American tropics.

The armadillo has a hard outer shell and can cut up into a ball with its soft body parts exposed to danger. It will sit like a woodpecker. The armadillo has long claws which the armadillo uses for digging tunnels and hunting for insects in the earth.

Despite the armadillo’s odd shape, most armadillos can reach a top speed of roughly 30 miles per hour common most single-armadillos. The primary predators of the armadillo are bats, snakes, and lizards.

Panning for History

Michael Stahl

The Young Scout troop went on a camping trip one weekend. The 12 boys and their parent leader went into the woods close to their home city of Sacramento, located in the state of California, U.S.A. They had many activities planned. The boys were going to learn about cooking, making 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 gold, silver, and other precious minerals. The process includes adding the rocks to a riverbed, stirring, and then shaking. The pan can either have tiny rocks or gravel, stones that will allow the water to escape, while leaving the rocks behind. There’s always a chance that some rocks might actually be valuable. One might even be a golden nugget...
The Young Scout troop went on a camping trip one weekend. The 12 boys and their leader went to the woods near 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 gold nugget!

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: Yes, Meg, what is summarizing?
Meg: Telling the most important stuff.

SLP: Meg, what is a better word than stuff?
Meg: 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?
Joe: Scientists are finding new stuff about raptors.

SLP: Yes, scientists are finding new information about raptors.
Joe: Show everyone where you found that information.

SLP: Yes, what is that called?
Joe: The main idea sentence?

SLP: Close. It is called the topic sentence. It has the main idea.

SLP: What are indicators of progress?

Ali: What grouped as “instructional strategies”

Who is using the strategy? What is the tx goal? What are indicators of progress?

SLP: How the strategy use to teach concepts or language skills?

Versus

SLP: Teach student to use strategy independently in other times and places?
Learner Strategy Tx Goals

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.

Data Sources on Product & Process for Learner Strategies

1. Determine information retrieval accuracy
2. Observe student's actions during a task
3. Ask for student think-aloud during a task
4. Interview student after a learning task
5. Observe lesson for strategy opportunities & hindrances
6. Ask teacher to modify a task slightly so it would benefit from strategy use
7. Ask student about awareness and use in particular assignments

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
- 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): teaching 11-yr-old RD to self-review
- 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

Teaching Simple Text Learning Strategies

Text Preview
Text Lookback

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

Novels < Informational Books < Magazines < Websites
Why Signaling Devices Matter

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

Signal 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
- Strawberry 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
   b. page 25
   c. page 32
   d. page 92

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.

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 do 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)

- Qn: Effect of text preview for reading comprehension?
  - Method: 4th graders stratified by reading level and randomly assigned to 3 conditions:
    1. Predict-Read: Write predictions about human body from science text, read silently, answer qns
    2. Discuss-P-R: Talk about human body with textbook closed; predict, read, answer qns
    3. Preview-P-R: Text feature walk prior to write predictions, read text, answer qns
  - Results: Preview-P-R > Predict-Read > Discuss-P-R

Text Preview Tx Procedure

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 Study
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:
    - Simple recall qns: Tx = 31% Con = 33%
    - In-text qns use: Tx = 70% Con = 22%
    - In-text qns correct: Tx = 72% Con = 31%
    - Tx looked back, flipped text over, asked if look back ok
    - Control only looked in text-up w/ cueing

Identifying Look-Back Qns
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)

1. What year was the study published?
2. What did the Controls receive?
3. Did Tx use look-backs for the right kind of qns?
4. Did the look-back strategy help comprehension?
5. Are 9-13 year olds expected to decode independently?
6. How many authors did the study have?

Look-Back Tx Procedure

1. 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 added awareness from having read text
2. At relevant section, note potential from the heading
   - Examine heading to determine why this may be informative
3. 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
Preview and Lookbacks:

Simple & clear
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

- Lookbacks, skimming, 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
- Get to know classrooms and help students deal with them
  - Encourage teachers to give reasons and purposeful overview of readings
  - Practice figuring out reason for reading in SLP devised scenarios and match approach to purpose

Text Strategy Tx

Txing Harder-to-Learn Strategies

Discourse Structure Awareness
Main Idea and Summarization

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

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 compr 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 compre
  2. Maintained correct use of guide w/o prompts to use
  3. Sts reported they were likely to use it again

Expository Text Structure

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

Scanlon et al. (1996)
- Similar benefits for middle schl sts with LD in inclusive lessons by history and civics teachers
Text Analysis & Webbing

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)

Summary Instruction Variations
- 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. Build a Fossil Paragraph

Finding Out About Dinosaurs
How do we know that dinosaurs lived long long ago? There are people who find out about dinosaurs. They are called paleontologists.
Paleontologists learn about dinosaurs from fossils. Fossils are the things left over from long ages, 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 what a dinosaur was like or how it moved. Paleontologists also help paleontologists learn where a dinosaur lived or how big it was, by the size of the bones.

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.

The dinosaurs’ long, sharp legs helped them run after other animals. Meat-eating dinosaurs had short arms. 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 Tyrannosaurus rex. The word means “king.” We call Tyrannosaurus rex the “king of the dinosaurs” because of its large size.

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.
But What’s a Main Idea??

Wong et al. (1986)
- Multiple baseline study on teaching 7th LD graders to compose well-structured summaries
- Tx: Sts told to underline and paraphrase the main idea of simple paragraphs

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.
- Sts identified random sentences and became frustrated

- Teach main idea identification first
- Then paraphrasing & supporting details
- In single then double paragraphs with topic sentences
- Then on classroom social studies texts

Results of Wong et al. Summarization
- 1 mth of 3 30min/wk → gain on paraphrase main ideas
- 3 mths of 3 30min/wk → gain 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 modifications indicating ownership
- 2 showed little motivation, slow learning, and lack of retention; fundamental disengagement with academic beyond study

My Text Strategy Tx: Note It Simply - Say It Fully

With:
Catherine Ross, M.S., CCC-SLP
Amy Peterson, M.S., CCC-SLP
RJ Risueno, B.S.
& the rest of the research team

Note-Taking & Use As Learning Strategies
- Taking notes
  - Select info from whole for own use
  - Reduce to key words & phrases
  - Minimize writing, punctuation, spelling
  - Transform to icons, diagrams, graphs
  - Organize to combine with other notes & info
- Using notes
  - Expand into own oral sentences
  - Verbally rehearse to retain ideas and words
  - Compose into own text product

Notes for Learning - Don’t Copy

Lexically abbreviate
Syntactically condense
Physically transform
Elaborate Reorganize Retrieve

Summarized & paraphrased notes vs. Verbatim notes

Note-takers who reduce, transform, and retrieve info show stronger lecture and reading comprehension and recall

Arnold et al., 2017; Bretzgen & Kulhavy, 1979; Boyle & Rivera, 2012; Chang & Wu, 2015; Kobayashi, 2006; Lee et al., 2008; McCubbin et al., 2009; Sotsie & Laska, 1999
Using Notes: Add Self-Talk

3R: Read-Recite-Review (McDaniel et al., 2009)
- Read text, set aside, recite ideas out loud
- Read text again, assess yourself
- Group experiment: 3R vs. note-taking vs. re-reading
  - College students on literal and integrative comprehension
  - Immediately post: 3R > notes > re-read
  - 1 week post: 3R = notes > re-read, but 3R faster

My wonderings:
- Can grade school students learn to self-talk from notes?
- Will rehearsed sentences help speaking and writing?

Alternative Notation: Sketch It Out

Story planning & recall
- Quick & easy, just enough to remember
- Pictography > write/draw for oral narrative length & quality
  (McFadden, 1998; Ukrainetz, 1998)
- Literature-based & manualized narrative txs (Petersen et al., 2014; Gillam et al., 2018; c.f. Ukrainetz, 2015a)

Child Pictography for Stories & Procedures

1. Quick & easy, enough-to-remember pictography of ideas from text
   - Writing alternative
   - Transform text words into key ideas

2. Turn into quick & easy, enough-to-remember bulleted notes
   - Minimize writing
   - Transform from pictography into own words

3. With repeated oral practice of own, full, well-formed sentences & whole reports
   - Writing alternative, concept transformation, memory support
   - SLP elicit, model, expand, revise, confirm

Say Fully - Note Simply Expository Strategy Tx

Shared reading

Say it fully
Sketch it simply
Say it fully
Note it simply
Say it fully

Present it or write it fully & formally

Transformation
Reorganization
Elaboration
Retrieval
of
Concepts &
language
Study #1: Short & quick tx with any beneficial effect?

Quasi-experimental group study (Ukrainetz, 2018; see also SLP.com)

- **Qn:** What is the effect of tx on students’ note-taking and their use of notes for oral and written reports?
  - **Method**
    - 44 4th-6th graders from 9 schools with IEPs in oral language, reading, or writing
    - Tx vs No-tx conditions balanced on grade & CELF5
    - Six 30-min indiv or pair tx sessions (3 hrs)
    - Ttxd on unusual animal science articles
    - Txed on social studies articles
    - Ttxed on social studies articles
    - Plus SLP instructor perceptions

Study #2: Focus on verbal rehearsal and learner use

Descriptive case study (Risueno, Ukrainetz, & Peterson, ASHA 2018; see also SLP.com)

- **Qn:** What is the nature of students’ note-taking and verbal rehearsal and use of the strategies for oral and written reports?
  - **Method**
    - Two 4th graders & one 6th grader with language impairment
    - 16 20-min indiv tx sessions (5.3 hrs)
    - First half: same core tx
    - Second half tx on verbal rehearsal and practice in varied contexts with decreasing scaffolding
    - Similar pre/post testing plus learner interview

Tx Articles

- 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...

Lexiles™ = 940 to 980; Words = 456 to 477

Core Tx Procedure

<table>
<thead>
<tr>
<th>Pictography Notes</th>
<th>Bulleted Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Session 1</strong></td>
<td></td>
</tr>
<tr>
<td>Preview &amp; review learning</td>
<td>1. Say full report from pictography without text</td>
</tr>
<tr>
<td>1. Read a bit &amp; locate on form a few important/interesting ideas</td>
<td>2. Say simply &amp; bullet note: Quick &amp; easy, just enough to remember</td>
</tr>
<tr>
<td>2. Start over, read, find ideas, do pictography: Quick &amp; easy, just enough to remember</td>
<td>3. Say it fully, then say it again</td>
</tr>
<tr>
<td>3. Say it fully, then say it again</td>
<td>4. Revise if needed &amp; say it again</td>
</tr>
<tr>
<td>4. Revise if needed &amp; say it again</td>
<td>5. Say full report from pictography</td>
</tr>
<tr>
<td><strong>Session 2</strong></td>
<td></td>
</tr>
<tr>
<td>Preview &amp; review learning</td>
<td>1. Say full report from pictography without text</td>
</tr>
<tr>
<td>1. Say simply &amp; bullet note: Quick &amp; easy, just enough to remember</td>
<td>2. Say it fully, then say it again</td>
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<tr>
<td>2. Say it fully, then say it again</td>
<td>3. Revise if needed &amp; say it again</td>
</tr>
<tr>
<td>3. Revise if needed &amp; say it again</td>
<td>4. Say full report from notes</td>
</tr>
</tbody>
</table>

**Text Strategy Tx**

**Pictography:**

- Model & Scaffold
- Quick & Easy
- Just Enough to Remember

Say Full Sentences From Pictography
The Apache are one of the most famous Native American groups in the United States. Apaches were known as skilled horsemen and fearsome fighters...

The Apache would go to one place to hunt and another to gather roots and berries. It was very important to find the wandering buffalo herds because the Apache people lived almost completely off buffalo.

The Inca Empire was the largest kingdom in ancient times on the American continent. It covered the country of Peru and parts of Ecuador, Bolivia, Argentina, Chile, and Columbia...

The Incas grew hundreds of varieties of potatoes, corn, and chili peppers in their high mountain gardens. Their meat was from guinea pigs and llamas.

850 lexile, 535 words  http://www.readworks.org/
BUT for Donal – Pictography is Better

Post-test Oral Report
- Longer report
- Longer sentences
- More vocabulary diversity
- Opening and closing
- Better presentation
gaze & voice
- 3/3 raters judged better

Tyrone  A Natural Gets Better

Pre to Post Oral Report
- Utterances = 9 → 12
- Words = 51 → 100
- Neither had verb form
- Post = fewer extraneous
- Post = better open/close
- Post = more own
- 3/3 raters judged better

Study #2: Can we improve learner strategy use?

S1-8 Core Tx on Texts 1 & 2
S9-10, Text 3
- Choice of notation & less scaffolding
- Verbal rehearsal
S11: Classroom Presentation
- Choice of report from notes
- Whisper rehearsal
S12-13: Animal Brochure
- Dictate sentences from existing notes
- Notes & oral practice → written report
S14-15: Michael Jordan text
- Notes choice & verbal rehearsal
- Minimal scaffolding
S16: Classroom Presentation
- Choice of report notes
- Independent whisper rehearsal
- Demo 3 strategies to peers & teachers

I hope you learned something new about these animals.

Who are these animals?

By XX

Text Strategy Tx
Pete - Pre-Test
Notes & Written Report

Did you say anything in your head as you took notes?

Angel
Pre: Well, when you were reading it, well I said in my head that I didn't know about the empire was the largest kingdom.
Post: I was saying in my head, “What should I write?” or “What should I do, like bullet notes or pictography?”

Steph
Pre: It was kind of hard and easy ‘cause I was reading the paper and then I was thinking in my mind, “Is that a place or something that will happen?”
Post: When I’m writing I whisper it to myself and then I have to show it to you.

Pete
Pre: No.
Post: I don’t know.

Case Study Results

<table>
<thead>
<tr>
<th></th>
<th>Steph</th>
<th>Angel</th>
<th>Pete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notation Choice</td>
<td>Bulleted notes</td>
<td>Bulleted Notes</td>
<td>Pictography</td>
</tr>
<tr>
<td>Notes Quality</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
</tr>
<tr>
<td>Notes Review</td>
<td>20 → 11 sec</td>
<td>0 → 17 sec Lip mvmt</td>
<td>0 → 45 sec Lip mvmt</td>
</tr>
<tr>
<td>Oral Report Quality</td>
<td>2/2 YES</td>
<td>1/2 YES</td>
<td>2/2 YES</td>
</tr>
<tr>
<td>Writ Report Quality</td>
<td>2/2 YES</td>
<td>2/2 YES</td>
<td>2/2 YES</td>
</tr>
<tr>
<td>Strategy Awareness</td>
<td>YES</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

SLP Instructors
Reflections on Sketch-and-Speak TX

► Grounded thematic analysis of essays
► 11 school SLPS (9 instructors + 2 who trained)
► 7 themes:
  1. Liked it (11 mentions)
  2. Simplicity (6)
  3. Quick and easy visuals (9)
  4. Orally creating sentences (6)
  5. Repeated practice (5)
  6. Visible progress (9)
  7. Functional and easily classroom connected (9)
Quick & Easy Visuals

- 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.
- 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.”

Oral Practice & Repetition

- 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.
- 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.
- 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.
- The repeated oral practice appeared to build confidence...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.

Classroom Connections

- Make our language intervention contextual where students are producing a product similar to what is expected in their classroom... help me tie our sessions into the Common Core and state standards.
- 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.
- Collaborating with 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.

Amy - The SLP’s View

2nd Time Around?

- We did the end of session 16 for Pete and Angel in front of their whole class together. It was so powerful and the kids were so impressed!
- Steph said, ‘I am just excited to teach people about stuff!’ He also said he wants to practice verbal rehearsal and note-taking for class projects and when I asked him to tell a peer what he learned, the first things he said were verbal and whisper rehearsal.
- My principal was so floored by my work that he wants me to present to the Wyo Dept of Education and the school district board.

* In Sum*

Note Simply
Say Fully
Strategy Tx

Pictography - bulleted notes - verbal rehearsal
- Some evidence for SLP tx strategy
- Some evidence as student learning strategy
- For oral and written expository language and learning
But a lot more to investigate.
References


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Swanson, E. et al. (2014). A synth and meta-analysis of rdg interv using social studies content for sts w/ LD. J Learning Dis, 47, 178-195.

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