

Sketch and Say
A Contextualized Expository Strategy Intervention

Teresa A. Ukrainetz, Ph.D.
Utah State University

Expository Tx

1

90-min Plan

1. Explaining Exposition
2. Contextualized Strategy Intervention
3. One contextualized expository strategy intervention
4. Initial findings on *Sketch & Say* implementation

2

2

For More Ideas & Info

Contextualized Language Intervention

Scaffolding PreK–12 Literacy Achievement

Teresa A. Ukrainetz, PhD

2006

SCHOOL-AGE LANGUAGE INTERVENTION

EVIDENCE-BASED PRACTICES

Second Edition

Edited By TERESA A. UKRAINETZ

2024

Pro-Ed, <http://www.proedinc.com>

3

The Aim: Career & College (& Life) Ready Learners

- ▶ Understand, produce, evaluate literary & informational texts
 - ▶ Persuade, explain, convey experience
 - ▶ Strong general & domain knowledge
 - ▶ Advanced texts at high levels of proficiency
- ▶ Self-directed learners: read purposefully, ask questions, seek out resources
- ▶ Common Core State Standards K-12 Anchor Standard #1
 - ▶ Read closely to determine what text says explicitly and make logical inferences from text
 - ▶ Cite specific textual evidence when writing or speaking to support claims

CCSS for English Lang Arts & Literacy in History/Social Studies, Science, & Technical Subjects (NGA-CCSSO, 2010), <http://www.corestandards.org>

4

Explaining Exposition

Just tell us a story instead?

Expository Tx

5

Expository Discourse

- ▶ Non-narrative discourse primarily for informative purposes
 - ▶ Discourse: Unit of language larger than a sentence
 - ▶ Informational or academic monologic talk
- ▶ Characterized by:
 - ▶ Logical links between ideas
 - ▶ Hierarchical organization from central proposition
 - ▶ Generalizing stance, “true-for-all-time”
- ▶ Subgenres:
 - ▶ Description, enumeration, problem-solution, cause-effect, sequence, comparison, argument

Expository Tx

6

Cutting Up the Expository Pie



1. **Description:** Describe the sweater you liked.
2. **Enumeration:** List the items that were stolen.
3. **Explanation:** Explain how fish breathe.
4. **Procedure:** Tell how to operate your stereo system.
5. **Comparison:** Which university should you choose?
6. **Argument or Persuasion:** Take a position on forest management.

Expository Tx 7

7

Signaling Devices

Overviews Summaries Headings
Key words

Signaling devices help composing & understanding

- ▶ Amplify organization of loose expository structure
- ▶ Aid analysis and synthesis of information
- ▶ Aid skim reading for main idea and particular details

Novels < Informational Books < Magazines < Websites

Expository Tx 8

8

How the Why and Who Affects the What

- ▶ **Purpose:** Is my recipe intended to show a new dish or to show how quick and easy a familiar dish can be?
- ▶ **Prior knowledge:** Do I need to define *creaming* and *rubbing* in this recipe?
- ▶ **Interest & attn:** How can I explain this in 3 minutes?
- ▶ **Most efficient organization:** Should I put all the ingredients first or list them as they are needed?
- ▶ **Logic or transparency of steps:** Surely I don't need to say to make sure the cap is screwed on tightly before shaking it?

Expository Tx 9

9

Describe this



Texas Educ Agency (1991).
TAAS and the writing process: A composition handbook: Gr 3 -5.

Expository Tx

10

Quality Description for Achievement Tests

...The raft that the dog and cat are on is made of eight boards nailed together and laid across three round logs. All the boards are almost exactly as long as the others and most of them look about as wide as the others except the one on the left side and it looks a little bit wider. You can see the circles in the ends of the logs...

Expository Tx 11

11

Purposeful Descriptions

- ▶ **For Sale:** Log raft, 6x8 ft., treated fir and brass nails, 8 ft. pole included, excellent condition, used once, \$50.
- ▶ **Manual:** When finished, the log raft should measure 6x9ft.. The boards should be of uniform dimension. The nails should 6" apart and flush with the wood.
- ▶ **Witness account:** It was a rough log raft. The two passengers looked cold and tired. They weren't steering or paddling. They didn't have any gear with them.

Expository Tx 12

12

Learning Exposition

- ▶ School activities
 - ▶ Science reports, persuasive essays
- ▶ School instruction and expectations
 - ▶ Basic skills or extended, sophisticated writing
- ▶ Life experiences and approaches
 - ▶ Family discussion style, non-fiction reading, interest in learning
- ▶ Knowledge and cognitive/linguistic abilities
 - ▶ What do you know and how good are you at learning book stuff?

Expository Tx 13

13

Expository Teaching Challenges

- ▶ No basic organization like story grammar
 - ▶ Many expository genres with variable structures
 - ▶ Multiple genres in one communicative event
 - ▶ Dependence on signaling devices
- ▶ Content difficult
 - ▶ Lexical & syntactic complexity
 - ▶ Scientific, factual, logical, precise
 - ▶ Affected a lot by prior topic knowledge
- ▶ Achieving purpose difficult
 - ▶ Decoding & writing competence to compose and deliver
 - ▶ Knowledge transmission: Audience knowledge and needs
 - ▶ Rhetorical: hold audience w/o sociability of conversation or magic of story

Expository Tx 14

14

EBP Expository Intervention - So Many Possibilities

- ▶ Guidance from many disciplines: Expository intervention, reading comprehension, writing composition, writing-to-learn/writing-to-read, psychology of learning, disciplinary literacy
- ▶ Strongest instructional research support = Learning strategies + Text structure analysis
- ▶ Other types of evidence-based instruction:
 - ▶ Vocabulary instruction
 - ▶ General and specific topic knowledge
 - ▶ Extended discussion of text meaning
 - ▶ Extended writing
 - ▶ Writing for variety of communicative purposes
 - ▶ Self-regulation and executive function

Exposit Strategy Tx See Ukrainetz (2024) AJSLP tutorial

15

Contextualized Skill [& Strategy] Intervention

Context Skill Tx Ukrainetz (2024, 2006)

16

Contextualized Tx

- ▶ **Context = Links to use in activities beyond tx task**
 - ▶ Use simplified but whole communication tx activities
 - ▶ Link to classroom, curriculum, academic standards
 - ▶ Through skills, topics, purposes, activities, materials
- ▶ **Connections to larger context**
 - ▶ Observe classroom; talk to teachers and students; look at curriculum, academic standards, lessons, interactions, materials
 - ▶ Engineer tx to functionally connect to world beyond speech room and make noticeable differences
 - ▶ How does your drill-game activity connect?

Pull-out tx can be contextualized, curriculum-based, collaborative

Exposit Strategy Tx 17

17

Whole and Part Framework

Tx goal: Noticeable improvement of communicative or functional activity by improving component skills & strategies

- ▶ Complex communicative “whole” activities
 - ▶ Share book, make presentation, create project
 - ▶ Vocabulary, grammar, discourse, self-regulatory skills
 - ▶ Small set of tx skills highlighted with RISE+
 - ▶ Assist, avoid, ignore non-tx goal skills
- ▶ Multiple simple drill-game “part” tasks for each tx skill with RISE+
- ▶ Together in multiple sessions in a treatment unit
 - ▶ Multi-skill and single skill sessions
 - ▶ Unified by topic/theme for incidental concept & vocabulary learning → advanced reading proficiency (Adams, 2011)

Exposit Strategy Tx 18

18

Basketball Coaching Analogy



- Whole:** Play chaotic but fun basketball game with low net, small teams, & coaching of general moves
- Parts:** Dribbling drill, passing drill, & shooting drill
- Whole:** Play less chaotic but fun basketball game, with coaching of more specific moves
- Parts:** Work on skill drills a bit more
- Whole:** Work on dribbling in game, passing in next game, shooting in next , with increasing mastery of game
- Whole:** Take a break and just play the game
- Parts:** Back to skill drills, but no worries, another game is coming up

** Supported by Research & Reason **

Context Skill Tx 19

19

Whole: Parks Visitor Webpage (or Poster)



Yellowstone National Park is a nearly 3,500-sq.-mile wilderness recreation area atop a volcanic hot spot. Mostly in Wyoming, the park spreads into parts of Montana and Idaho too.

Yellowstone features dramatic canyons, alpine rivers, lush forests, hot springs and gushing geysers, including its most famous, Old Faithful. It's also home to hundreds of animal species, including bears, wolves, bison, elk and antelope.

Area: 3,468 mi² Hours: Open today - Open 24 hrs
Getting there: 6 h 6 min flight.
Established: March 1, 1872
Phone: (307) 344-7381
Management: U.S. National Park Service

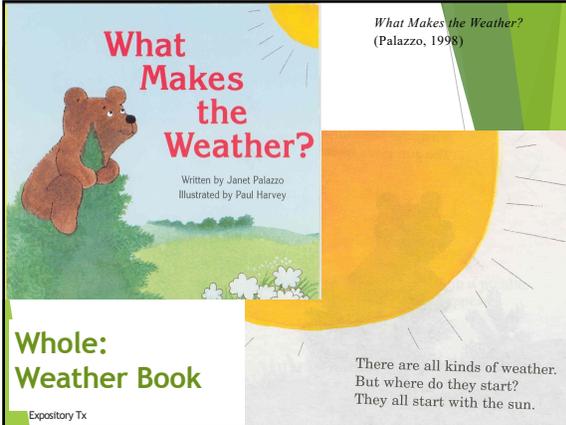
<https://www.google.com/search?q=yellowstone+national+park&ie=utf-8&oe=utf-8>

Expository Tx 20

20

What Makes the Weather?

(Palazzo, 1998)



Written by Janet Palazzo
Illustrated by Paul Harvey

Whole: Weather Book

There are all kinds of weather. But where do they start? They all start with the sun.

Expository Tx 21

21

I hope you learned something new about these animals.

Made in research but not by Angel with the Professor!

Who are these animals?

By Ranael

Sketch & Say Whole: Oral Reports

Whole: Dictated Brochure

Cassowary

I will teach you about the cassowary. The cassowary is a big bird. It has wings, but it cannot fly. The cassowary lives in Australia. Its habitat is in the jungle. The people are chopping down its habitat. Their appearance is that they have black feathers and they have pointy claws. The cassowary's legs are very strong. They have the legs with the talons until they reach. The birds they eat are fruits, tiny animals, and other insects. The girl cassowary is taller than the boy. They have no natural predators. Help this animal live!

Aye-Aye

I will teach you about the aye-aye. The aye-aye lives in Madagascar. They live in a jungle. They have thin feet every day. They have clean and the middle one is made pointed so they can take out food. The aye-aye does not lay eggs. It has a baby just like a human does. Their appearance is that they have big, round ears, black hair, and a pointy nose that is pink. The foods they eat are fruits, tiny animals, insects, and worms. They use their middle finger to scrape out the insects. People are trying to kill the aye-aye because if they look at them, their lives become bad and will die. People are trying to find a special food for the aye-aye so they can live forever. Please help build this island.

Axolotl

I will teach you about the axolotl. It lives in Mexico. Its habitat is underwater and it could be a great aquarium pet. It has 4 legs on each side and it has 4 legs. Its appearance is that it could camouflage to its surroundings. It lays 100 to 1,000 eggs. The foods they eat are worms and tiny fish. They do not show, they swallow in which. Ranael fish are eating them. If you chop off one of their legs, they could grow a new one. I hope you learned something new today.

Expository Tx 22

22

Tx Goals in Single Rich Activity

Activity	Skill	Example
Conduct chemistry experiment	<ol style="list-style-type: none"> Measurement lexicon Expanded noun phrase Procedure sequence Follow instructions 	<ol style="list-style-type: none"> Rams, millimeters, weigh scale A glass beaker with a measurement scale First, set out the materials, next... Pay attention to details, not gist, of what said; don't assume or skip
Summarize history passage	<ol style="list-style-type: none"> Suffix "ion" Conditional tense Main ideas Note-taking 	<ol style="list-style-type: none"> Deregulation, investigation, expectation Ought to do it, would avoid Explicit and implicit idea statements Words and phrases in outline format
Give biology presentation	<ol style="list-style-type: none"> Definitions Relative clauses Description Verbal fluency 	<ol style="list-style-type: none"> My report is on penguins, which are flightless fish-eating birds that live in Antarctica. Description organized by habitat, diet, appearance, and behavior Adhere to good speaker features

Expository Tx 23

23

Skill Tx Critical Elements: RISE+

R epeated opportunities for skill learning

I ntensity of instruction

S ystematic support of tx skills

E xplicit focus on targeted skills

+ Learner: attention, motivation, & engagement

Across approaches, procedures, skills, modalities, disorders

Berninger et al. (2003), Denman et al. (2021), Gillam et al. (2001), Gillam et al. (2008), Torgesen et al., (2001) 24

Expository Tx

24

RISE+ Tx for Procedure Discourse

R	10 opps in 2 sessions: 2 model critiques, 1 paired & 1 indiv short product w/ 4 opps each to draft, revise, share, critique
I	3 tx objs, 4 students, 90 min/wk, 8 wks
S	Structural scaffolds: Routines, book of kid experiments, description schematic, minimal writing, cue cards... Interactive scaffolds: Linguistic: Model, elaborate, & extend responses Regulatory: Guide good learner behaviors toward independence
E	Focus on tx goal of procedure structure Assist vocabulary, avoid extensive writing, ignore spelling
+	Interesting activities; goal choices within activities; Self-rating; Noticeable, relevant improvement

25

25

56. Hidden

Purpose To demonstrate how color helps to protect an animal.

Materials scissors, ruler, 2 sheets of construction paper (1 black and 1 orange), 2 sheets of newspaper (use sheets with print only—no pictures), pencil, helper

Procedure

1. Cut two 3-by-5-inch (7.5-by-12.5-cm) rectangles from each sheet of construction paper and from one sheet of newspaper.
2. Stack the rectangles together. Draw the largest fish possible on the top piece.
3. Cut out the fish, making sure to cut through all 6 layers of paper. Do not allow your helper to see the fish before the experiment starts.
4. Lay the uncut sheet of newspaper on the floor at the feet of your helper.
5. Ask your helper to close his or her eyes while you scatter the paper fish on the newspaper. Be sure to lay the newspaper fish with the print-only side facing up.
6. When you say "Go," have your helper open his eyes, quickly look at the newspaper, count the fish that are laying on the newspaper, and then immediately raise his or her eyes from the newspaper.

Results Usually people see only the black and orange fish.

Why? The newspaper fish are an example of camouflage. **Camouflage** occurs when an animal's color blends into the color of its environment (the natural surroundings of an organism). Camouflage makes it difficult for an animal to be seen by a predator (an animal that lives by killing and eating other animals).

Whole: Science Report



202 Oozing, Bubbling, Dripping, & Bouncing Experiments (van Cleave, 1996)

26

26

Strategy

- ▶ What is a strategy?
 - ▶ Action or skill selected deliberately to achieve particular goal
 - ▶ Short-term, general problem-solving procedure to highlight info and guide attentional focus
- ▶ Overall, genre, specific, disciplinary:
 - ▶ My strategy is to do just enough to pass the test
 - ▶ My strategy is TREE (Topic sentence, Reasons, Examples, Ending)
 - ▶ My strategy is to stop and say meaning of each bolded word 3x
 - ▶ My strategy is to create flowcharts for biological processes
- ▶ Single strategy or combination/sequence of multiple strategies

Plus strategic use of strategies: *Knowing what to do when why*

Exposit Strategy Tx 27

27

Strategy Terminology

- ▶ Reading, comprehension, study, writing strategies
- ▶ Teaching and learning strategies
- ▶ Cognitive, metacognitive, or self-regulatory processes
- ▶ Procedures, tools, or behaviors

▶ Grouped by:

- ▶ Task type (reading vs. writing)
- ▶ Timing (before, during, or after a task)
- ▶ Visibility (e.g., mental retrieval vs. writing notes)
- ▶ Mental demands (e.g., memorization and rehearsal vs. elaboration and transformation)

Strategy Tx 28

28

Strategies/Procedures with Firm Scientific Basis

1. Comprehension monitoring
2. Question generation
3. Summarization
4. Paraphrasing
5. Graphic organizers
6. Text structure analysis
7. Context cues for word learning
8. Mnemonics for steps or parts
9. Note taking
10. Mental retrieval

- ▶ Definitely help comprehension & expression
- ▶ Strong evidence for instructional benefits
- ▶ Qns re:
 - ▶ Amounts & combos of strategies
 - ▶ Combining content & strategy instruction
 - ▶ Self-regulated use

Filderman et al., (2022), Kamil et al. (2008), Gersten et al. (2001), Graham et al. (2016), Karpicke & Roediger (2008), Kobayashi (2006), NRP (2000); Peterson et al. (2020); Pyle et al. (2017); Shanahan et al. (2010), Swanson et al. (2014)

Exposit Strategy Tx 29

29

Whose Strategy Is It? Teaching Tool vs. Learning Tool

SLP uses strategy on students to improve students' language skills and curricular knowledge?

OR

SLP teaches student to use strategy in other contexts to improve their own language and learning?

- ▶ Who is in control of strategy use?
- ▶ What is the tx goal?
- ▶ What are indicators of progress?

Exposit Strategy Tx 30

30

Tx Goals on Process vs. Product

Goal 1 Process	Jaden will <i>use quick sketch notes and oral sentence practice strategies</i> to turn ideas from expository texts into oral and written reports with minimal support at 80% accuracy of strategy use based on SLP data
Goal 2 Product	Jaden will <i>improve his recall of main ideas and important details from grade-level expository texts</i> in structured tasks with minimal support at 80% accuracy of information recall based on SLP data

Strategy Tx 31

31

The Main Event: Sketch and Say

Contextualized expository strategy intervention

Understand, recall, speak, write language and ideas of informational texts

Strategy Tx 32

32

The Origin Story: Pictography

Quick & easy, just enough to remember

- Clinical & research evidence of teachability & benefits (McFadden, 1998; Ukrainetz, 1998; Ukrainetz, 2015)
- Pictography > write/draw for oral narrative length & quality
- Simple, flexible, accessible, appealing tool

33

33

Evolution to Sketch and Say

- Incorporate pictography with structured oral language formulation and practice
- Expository discourse
- Students beyond the early grades
- SLP distinctive competencies & opportunities
- Integrated set of teaching/learning strategies
- Easily taught and learned
- Student ownership of process and product
- Adaptable to diverse treatment goals, activities, & settings

→ Noticeable, motivating changes in component skills & whole academic-communicative events

34

34

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...

Topic: Axolotl Introduction: I learned about axolotl	Topic: Axolotl Introduction: I learned about the axolotl in MEXICO CITY
Habitat: (hand-drawn sketch of a lake)	Habitat: underwater
Appearance & Behavior: (hand-drawn sketch of an axolotl)	Appearance & Behavior: fish legs researched

Text & Sketch – Add Say

35

35

Evidence on Note-taking & Rehearsal

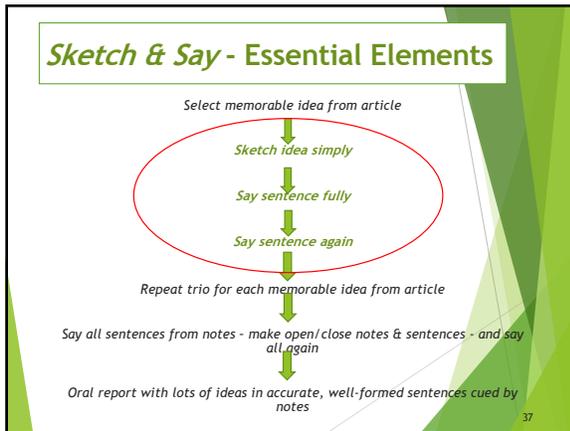
Reduce source text to notes	Expand notes into own words
<ul style="list-style-type: none"> Select info from whole Condense to key words & phrases Transform to quick sketches, diagrams, graphs Minimize demands on writing, punctuation, spelling Re-organize & combine with other notes 	<ul style="list-style-type: none"> Retrieve idea represented from note Expand into own full oral sentence Rehearse to retain ideas and words Compose into own text product Rehearse whole text

Active learning: Reduce, transform, reorganize, retrieve, expand, connect, rehearse with effort & accountability

Arnold et al., 2017; Bretzing & Kulhavy, 1979; Chang & Ku, 2015; Karpicke & Roediger, 2008; Karpicke et al., 2009, 2014; Lee et al., 2008; Kobayashi, 2006; McDaniel et al., 2009; Slotte & Lonka, 1999

36

36



37

Say #1 Sentence & Say It Again

Exposit Strategy Tx

38

Say #2 Sentence & Say It Again

Exposit Strategy Tx

39

Say #3 Sentence & Say It Again

Exposit Strategy Tx

40

Finish Your Report

Write simple open/close notes:
 "want to tell you ___"
 "hope you enjoyed ___"

↓

Say full open/close sentences
 And say them again

↓

Say whole report
 And say it again

Exposit Strategy Tx

41

You did it! Your own Axoloty! report

I want to tell you about a fascinating creature.

The axolotl is a salamander that is found in only two connected lakes in southcentral Mexico. Axolotls are also called Mexican walking fish because they look like fish with legs. Scientists do research on them because they have special features, like they can regrow their legs or grow extra legs.

I hope you have enjoyed learning about the axolotl.

Exposit Strategy Tx

42

Topic Cassowary

Group & Location	
Habitat	
Appearance & Behavior	
Food	
Special Characteristics	

Say Full Sentences From Pictography



Exposit Strategy Tx 43

43

Topic Cassowary

I'm going to help about the cassowary

Group & Location	• New Guinea • Australia
Habitat	• dense forest • mountain
Appearance & Behavior	• girls are bigger and more colorful • male protects eggs
Food	• fruits • animal • bugs
Special Characteristics	• large 2M • 3M tallest • indanger T= @ • mine

Oral Report from Bulleted Notes



This is what I know about the cassowary

44

44

Sketch & Say Procedure in 1st Session

1. Tell purpose: Learn strategies to remember ideas from informational articles and turn into your own reports
2. Read aloud article first paragraph with print in view
3. Guide students to identify important or interesting idea
4. Turn idea into *quick & easy, just enough to remember* sketch on notesheet
5. Say full sentence from sketch
6. Revise sentence for quality or accuracy, if needed
7. Say sentence 2-3 more times
8. Repeat #1-7 for 1-2 ideas per paragraph for half article
9. Say & say again half oral report from sketches
10. Review strategies: Sketch idea, say sentence, say again

45

45

Sketch & Say Procedure for 2nd Session

1. Say half report from sketched notes
2. Check ideas against article, revise sentences or sketches, if needed & say again
3. Students identify strategies: sketch idea, say sentence, say again
4. Continue second half of article, paragraph by paragraph
5. For each idea, sketch note, say sentence, say 2-3 more times
6. Say open/close sentence
7. Write open/close starter words as notes top and bottom
8. Say open/close sentences 3 times
9. Say full report from bulleted notes & say it again
10. Share with audience and show strategies: Sketch idea, say sentence, say again

46

46

Pete Scores!

Topic Pete Dinklage

Personal Life	
High School and College Career	
Professional Highlights	
Other Accomplishments	
Interesting Information	

• Next time you can maybe watch show about basketball or even study basketball



JORDAN

47

47

Dallin - Practice Makes Better!

Topic Jill Trappe

Early Life	
About the Sport	
Professional Highlights	
Other Accomplishments	
Fun Facts	



48

48

Sketch & Say Research Studies to 2025

1. **Ukrainetz (2019)**: Group tx vs no-tx experiment with 41 gr4-6
2. **Peterson, Ukrainetz, & Risueno (2021)**: Multiple case descriptive with three gr4-6
3. **Peterson & Ukrainetz (2023)**: Multiple baseline online tx experiment with three 9th graders
4. **Ukrainetz, Peterson, Konishi-Therkildsen, Lettich, & Harper (2025)**: Multiple baseline tx expt with four 7th graders
5. **Peterson, Ukrainetz, Bush, & Konishi-Therkildsen (2025)**: Qualitative study of school carryover with prior four students, their SLP and teachers

Exposit Strategy Tx 49

49

Research Study Methods to 2025

- ▶ **Student participants**: 3 to 44 4th to 9th grade students with LLD
- ▶ **SLP participants**: 1 to 11 trained school SLP instructors
- ▶ **Tx duration**: 6 to 16 20-40 min individual sessions
- ▶ **Tx procedure**: Paired pictography & bulleted notes sessions; with & w/o extended tx; in-person & telepractice
- ▶ **Experimental control**: Random and balanced group assignment, same procedures across baseline and tx phases, tx fidelity and testing reliability measures
- ▶ **Outcome measures**: Taught & non-taught notes, oral reports w/ & w/o notes, written reports from notes, short answer qns, strategy awareness interview, rehearsal behaviors, participant perceptions

Strategy Tx 50

50

Results of Studies to 2025

- ▶ **S&S strategies**
 - ▶ Easily learned picto notes
 - ▶ Variably improved bulleted notes
 - ▶ Reminders needed to say sentences again
 - ▶ Oral sentence practice helped recall from poor notes
- ▶ **Improved quality of oral reports**
 - ▶ From taught and novel articles
 - ▶ With and w/o notes
- ▶ **Participant Perceptions**
 - ▶ SLPs: easy to implement, effective treatment & strategies
 - ▶ Teachers: easy to implement, effective strategies
 - ▶ Students: confident with S&S strategies
 - ▶ Parents: notice child's learning engagement, attn to details, article info recall

Exposit Strategy Tx 51

51

The Next Step: Sketch and Say Implementation

© SLPs research participants & professional development attendees ©
But what happens after that?

Strategy Tx 52

52

School SLP Implementation Study - In Progress

Qn: What is the nature of school SLP implementation?

- ▶ 3 SLPs, each with 2 Gr4-6 caseload students and 1 teachers
- ▶ **Procedure**
 - ▶ Dec: District SLP professional development event
 - ▶ Aug: SLP participant group training
 - ▶ Sept: Researcher get to know SLP typical practices
 - ▶ Oct-Dec: SLP delivers "standard" format for six sessions per student with researcher guidance
 - ▶ Dec: SLP delivers customized format for 2+ sessions per student with researcher guidance
 - ▶ Dec: SLP collaborates with teacher for 1-2 class lessons
 - ▶ Jan-March: SLPs choose uses on own
- ▶ **Data**: Interviews, observations, discussions, work artifacts

53

53

Some Initial Implementation Findings

- ▶ **Two-way learning** for SLP & researcher
- ▶ **Clinical procedure**:
 - ▶ Flexible and simple
 - ▶ Predictable routine
 - ▶ Easily available materials
- ▶ **On-the-ground changes**:
 - ▶ *Sketch & Say* [not *Sketch & Speak*]
 - ▶ Sketches [not pictography nor pictos]
 - ▶ Half article per 20-min session
 - ▶ All sketches [no 2nd version as bulleted notes]
 - ▶ Write starter words for open/close notes (e.g., *I want to tell you, I hope you learned*)

54

54

More Initial Findings

- ▶ **Sketched notes**
 - ▶ Quick & easy, just-enough-to-remember iconic notes
 - ▶ Letters, numbers, !, occasional words
 - ▶ Keep sketches quick & easy, but enough to cue idea
 - ▶ Modify form to suit your tx activity
- ▶ **Say sentence and say again**
 - ▶ 3x as standard number of reps
 - ▶ If change sentence, say again
 - ▶ Students know they must say sentences again
- ▶ **Pairs of students**
 - ▶ Take turns identifying idea from text
 - ▶ Each make own sketch & sentence
 - ▶ Take turn saying sentence with SLP
 - ▶ Give oral report to each other

55

A Few More Initial Findings

- ▶ **Sources of informational texts**
 - ▶ Students can handle difficult texts within S&S structure
 - ▶ “Listening comprehension” worksheet passages
 - ▶ Textbooks and readings from classroom lessons
 - ▶ Informational trade books from library & articles from internet
 - ▶ Collect a few appealing trade books
- ▶ **Student engagement & ownership**
 - ▶ Take time to turn sentences into whole oral report
 - ▶ Share with audience: teacher, librarian, parent, students
 - ▶ *What did you learn? All about X*
 - ▶ *How did you learn it? Sketch idea, say sentence, say again*
 - ▶ Work toward student independence on strategy execution

56

Informational Article



Axolotl
The axolotl, or Mexican salamander is originally from southcentral Mexico, but few exist there anymore. Axolotls are sometimes called Mexican walking fish because they look like fish with legs.

Axolotls are neotenic amphibians. This means that, unlike frogs, toads, and other salamanders, they do not go through metamorphosis. Metamorphosis is when aquatic babies develop into adults with lungs, legs, and eyelids, so they can move onto land. Axolotls do not go through this full change, and continue to live and breathe under water.

The axolotl is about nine inches long. It has a flat, broad head that is much wider than its body. It has four short legs that propel it along the water bottom. To breathe, the axolotl has three pairs of feathery gill stalks, called *rami*, protruding from either side of its head. *Rami* flutter to move oxygenated water into the gill slits. The axolotl does not chew, but instead, eats by sucking in its food whole. The axolotl is carnivorous. It moves along the water bottom, vacuuming up worms, insect larvae, mollusks, crustaceans, and small species of fish.

The axolotl have four pigmentation genes that combine to create many colors. The normal wild type is brown and olive with gold speckles. Axolotl can be pale pink, golden, gray, or black. In the pet trade, axolotl are commonly bred to be whitish pink albinos with pink eyes. Axolotl can camouflage by adjusting their color a bit to better match their surroundings.

The axolotl can live for up to 25 years, but most live less than 15 years. Female axolotl lay 100 to 1,000 eggs which are coated with a sticky substance that help them to stick to plants and rocks in the water. After about a month, tiny axolotl larva emerge from the eggs. The larva will go through partial metamorphosis into adult axolotl.

Axolotl is native only to two connected lakes, Lake Xochimilco and Lake Chalco, near Mexico City. Unfortunately for the axolotl, the two lakes have been mostly drained to reduce flooding and allow for expansion of Mexico City. Non-native fish, such as African tilapia and Asian carp, have also been introduced to the waters. These new fish eat young axolotl and compete for the same food sources.

Axolotl are easily kept and bred in captivity. They have features that are useful for scientific research. For example, with iodine injections, they can be forced into metamorphosis into larger, terrestrial salamanders. They can accept transplants of body parts, such as eyes and pieces of brain from other Axolotl. After being damaged, they can regenerate entire limbs or extra limbs. Axolotl have been saved from extinction due to these fascinating features. The species continues to live as popular freshwater aquarium pets and research subjects.

57

Animal Note Form

Student: _____ Instructor: _____ Date: _____

Topic: _____

Opening:

Type & Location	Habitat	Appearance	Behavior	Food	Special Characteristics

Closing:

Modifications:

- Open & close spaces
- Separate rows for Appearance & Behavior
- 2 spaces per row for sketches

58

Taking Progress Data Possibilities

1. **Overall quality or independence rating, 1 to 5**
 - ▶ **Content:** For ideas and language of oral report from info articles
 - ▶ **Strategies:** For sketched notes, saying sentences, saying sentences again
2. **Count number of correct items**
 - ▶ **Text comprehension:** Ideas correctly recalled
 - ▶ **Syntax:** Sentences grammatically correct
 - ▶ **Semantics:** Vocabulary correctly used
 - ▶ **Cohesion:** Number of specific nouns with their pronouns clearly used
 - ▶ **Coherence:** Number of expository parts clearly organized

59

Progress Monitoring Tool

Rating Scale (Circle one number for each category)

- **4 – Excellent:** I clearly explained the main ideas and key details. I remembered information accurately and in the correct order. I needed little to no help.
- **3 – Good:** I explained the main ideas and most details. I remembered most information with minor errors or small reminders.
- **2 – Fair:** I shared some main ideas but missed or mixed up details. I needed reminders of prompts to remember information.
- **1 – Needs Practice:** I had trouble explaining the main ideas I forgot important information or needed a lot of help.

Self-Rating Table:

Skill	1	2	3	4
How well I explained my oral report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How well I remembered the information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sadie Hathaway, 2026 60

60

Sketch and Say Possibilities for Specific Language Skills

- ▶ **Written reports:** Sketch and said report as rough draft to turn into written report cued by notes
- ▶ **Vocabulary:** Make sketched definitions and sentences about vocabulary in text
- ▶ **Grammar:** Make sentences with particular structures about sketched and said ideas
- ▶ **Comprehension:** Answer text comprehension questions that tap ideas sketched and said
- ▶ **Narrative:** Switch to narratives for recall, retell, and story grammar elements
- ▶ **Speech sounds:** lots of opps for /r/ or /s/

61

Story Grammar Note Form

Student: _____ Instructor: _____ Date: _____

Title _____

Opening:

Setting Who Where When	
Starting Action	
Problem	
Emotional Response	
Mental Plan	
Attempt 1	
Attempt 2	
Attempt 3	
Consequence	
Emotional Reaction	

Ending:

62

Vocabulary Note Form

Student: _____ Instructor: _____ Date: _____

Topic _____

Word	Sketch & Say Definition (if needed...)	Sketch & Say Sentence

63

Blank Category Note Form

Student: _____ Instructor: _____ Date: _____

Topic _____

Opening:

Category 1		
Category 2		
Category 3		
Category 4		
Category 5		
Special Features		

Closing:

64

Grid Note Form

Student: _____ Instructor: _____ Date: _____

Topic _____

1	2	3
4	5	6
7	8	9
10	11	12

65

Collaborative Classroom Sketch and Say

- ▶ **Hard to find time to plan and carry out**
- ▶ **SLP taught lesson in classroom with teacher**
 - ▶ Teacher selected informational article
 - ▶ Formatted notesheet by SLP or by teacher
 - ▶ SLP modeled sketches on screen & modeled saying sentences
 - ▶ One SLP "pre-taught" her two students who presented to class
 - ▶ One teacher taught second lesson with new text
- ▶ **Oral sentence practice by students**
 - ▶ Individual whisper practice at desks for each note
 - ▶ Pair & share after each note
 - ▶ Pair & share for whole report

66

Colonial Christmas Traditions

5th Grade Lesson Reading

Think of your family's Christmas traditions for a moment. How do you think they compare to Christmas traditions in the 18th century?

Colonial Christmas traditions varied greatly from region to region. In some areas, Christmas was celebrated with parties and decorations but in some areas, people who celebrated Christmas were fined. As you read, think about the differences between the colonial regions and how colonial traditions compare to our traditions today.

New England Colonies
People living in the New England colonies didn't celebrate Christmas at all. Puritans, the strict religious group that dominated New England, outlawed all Christmas celebrations, greetings, and decorations. You would have to pay a fine if caught feasting, celebrating, or taking the day off. They viewed the traditional celebrations of Christmastime to be excessive and distasteful.

Middle Colonies
Like the New England colonies, people in the Middle colonies did not celebrate Christmas. The Quakers were a strong voice in this region and they believed that Christmas should not be celebrated with fancy parties or decorations. A 1741 primary source quote from a visitor to a Quaker town in Philadelphia says, "On Christmas Day... The Quakers did not regard this day any more remarkable than other days. Stores were open, anyone might sell or purchase what he wanted... There was no more baking of bread for the Christmas festival than for other days... Life went on as normal for citizens of this region."

67

Reading p2

Southern Colonies
If you lived in the Southern colonies, Christmas was a lively, celebrated time of year. Colonists participated in parties, dancing, hunting, and feasts. This season was a special time. Large gatherings were common during Christmastime.

Feasts were enjoyed in the Southern colonies. The types of food eaten at these Christmas feasts included ham, turkey, beef, goose, fish, oysters, mince-meat pies, and candied fruit. Although, it all depended on the wealth of the family. Wealthier families enjoyed a higher quality and quantity of food and drinks while less well-to-do families enjoyed a more modest feast.

The Christmas tree did not become popular until the mid-1800's. So, although there were no festive trees to brighten the Southern colonies, there were plenty of other decorations in colonists' homes and churches. Houses were decorated with holly, ivy and a sprig of mistletoe. Churches were decorated with greenery for services.

The singing of carols was commonplace during Christmas celebrations. *Joy to the World* was a popular Christmas carol at the time. However, we probably wouldn't recognize the tune that colonists used to sing this song.

Enslaved individuals were given half a day to several days off of work. Plantation owners usually provided rum and candy to their workers as a Christmas gift.

Today, Christmas is considered a children's holiday, but in the 18th century, Christmas was more adult-centered. Nonetheless, children usually received a gift or two.

68

Teacher Note Form

Whisper Phone



Introduction: The difference between the three colonies.	
New England Colonies	
Middle Colonies	
Southern Colony Traditions	
Southern Colony Inventions	
Southern Colony Feasts	
Stives Celebrations	
Conclusion: Which Colony would you rather live in and why?	

69

References

Adams, M. J. (2011). Advancing our students' language and literacy: The challenge of complex texts. *American Educator*, 34(4), 3-11, 53.

Arnold, K. M. et al. (2017). Understanding cog processes involved in writing to learn. *J Exp'tal Psyc: Applied*, 23, 115-127.

Bretzing, B. H., & Kulhavy, R. W. (1979). Notetaking and depth of processing. *Contemporary Educ Psyc*, 4, 145-153.

Calkins, L. et al. (2012). *Pathways to Common Core: Accelerating achievement*. Heinemann.

Chang, W-C & Ku, Y-M. (2014). Effects of note-taking skills instruct on elementary students reading. *J Educ Res*, 108, 278-291.

Denman, D., Kim, J., Munro, N., Speyer, R., & Cordier, R. (2021). Consensus on terminology for describing child language interventions: A Delphi study. *Journal of Speech, Language, and Hearing Research*, 64, 3504-3519.

Filderman, M. J. et al. (2022). Meta-analysis of reading compreh interv on reading compreh of struggling readers in 3rd-12th grades. *Exceptional Ch*, 88, 163-184.

Gersten, R. et al. (2001). Teaching compreh strategies LD sts. *Rev Educ Res*, 71, 279-320.

Hebert, M. et al. (2014). Note-taking & extended writing on text comprehension. *Learn Dist Contemporary J* 12, 43-68.

Gillam, R.B. et al. (2001). Looking back: A summary of 5 exploratory studies of Fast Forward. *AJSLP*, 10, 269-273.

Gillam, R.B. et al. (2008). The efficacy of Fast Forward language interv in schl-age ch with lang impairment: RCT. *JSLHR*, 51, 97-119.

Kamit, M.L. et al. (2008). *Improving adolescent lit: Effective class & intervention practices: Practice Guide* (NCEE #2008-4027). IES WWC.

70

Karpicke, J. et al. (2014). Retrieval-based learning: The need for guided retrieval in elem school. *J Applied Res in Memory and Cognition*, 3, 198-206.

Karpicke, J. D. et al. (2009). Metacognitive strategies in student learning: Do students practice retrieval when they study on their own? *Memory*, 4, 471-479.

Karpicke, J.D., & Roediger, H.L. (2008). Critical importance of retrieval for learning. *Science*, 319, 966-968.

Kobayashi, K. (2006). Combined effects of note-taking/-reviewing on learning and enhancement through intervention: A meta-analytic review. *Educ Psyc*, 26, 459-477.

Lee, P.L. et al. (2008). Effects of teaching notetaking strategies on elementary students science learning. *Instructional Sc*, 36, 191-201.

McDaniel, M.A. et al. (2009). The read-recite-review study strategy: Effective and portable. *Psychological Sc*, 20, 516-522.

McFadden, T.U. (1998). Immediate effects of pictography drafting on children's narrative. *Child Lang Teach & Therapy*, 14, 51-67.

NRR (2000). *Teaching children to read: Evid-based assess of research* (NIH 00-4769). NICHD. <http://www.nationalreadingpanel.org/>

Peterson, A. K. et al. (2020). Syst review of academic discourse interv for schl-aged ch with LLD. *LSHSS*, 51, 866-881.

Peterson, A.K., Ukrainetz, T.A., & Risueno, R.J. (2021). Speaking like a scientist: Sketch-and-Speak tx to improve exposit discourse. *Autism & Develop Lang Impairments*, 6, 1-19.

Peterson, A.K., & Ukrainetz, T.A. (2023). *Sketch and Speak expository intervention for adolescents: A single-case experiment via telepractice*. *LSHSS*, 54, 1208-1232.

Peterson, A.K., Ukrainetz, T.A., et al. (2025). *Qual inquiry of student, parent, and educator perceptions of an expository intervention and carryover*. *LSHSS*, 56, 1252-1272.

Pyle, N. et al. (2017). Effects of expository text structure interv on comprehension: Meta-analysis. *RRQ*, 52, 469-501.

Reynolds, G. A., & Perin, D. (2009). Comparison of text structure & self-regulated writing strategies for composing from sources by middle-school etc. *Reading Res*, 30, 265-300.

71

Scanlon, D. et al. (1996). Can strategies be taught & learned in secondary inclusive class? *Learn Dis Res & Pract* 11, 41-57.

Shanahan, T. & Sh, C. (2008). Tchg disciplinary lit to adoles: Rethinking content-area lit. *Harvard Ed Review*, 78, 40-59.

Shanahan, T. et al. (2010). *Improving reading compreh K-3rd gr: Practice guide* (NCEE 2010-4038). IES WWC.

Slotte, V., & Lonka, K. (1999). Review and process effects of spontaneous note-taking on text compreh. *Contemporary Educ Psyc*, 24, 1-20.

Stevens, E. A. et al. (2019). Paraphrasing and text structure interv on main idea generation and reading compreh of students with RD in gr4&5. *Scientific Studies of Rdg*, 24, 365-379.

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

Torgesen, J.K. et al. (2001). Intensive remed instruct for ch with severe rdg dis: outcomes from two instructional approaches. *J Learning Dis*, 34, 33-58.

Ukrainetz, T.A. (1998). Stickwriting stories. *LSHSS* 29, 197-207.

Ukrainetz, T. A. (2015). Improving text compreh: Scaffolding adolescent into strategic reading. *Seminars In Speech & Lang*, 36, 17-30.

Ukrainetz, T.A. (2016). Strategic interv for expository texts: Teaching text preview and lookback. *ASHA Perspectives on LLE*, 1, 99-108.

Ukrainetz, T.A. (2019). Sketch and speak: An expository interv using note-taking and oral practice for ch with LLD. *LSHSS*, 50, 53-70.

Ukrainetz, T.A., & Peterson, A.K. (2021). *Sketch & Speak: An oral, written, and graphic strategy intervention for secondary students*. *ASHA Perspectives*, 6, 1357-1373.

Ukrainetz, T.A. (2024). Evidence-based expository interv: A tutorial for SLPs. *AJSLP*, 33, 654-675.

Ukrainetz, T.A., Peterson, A.K., et al. (2025). The effect of an expository interv on strategy use and oral expression of informational texts for adolescents with LD. *LSHSS*, 56, 342-371.

72