



RETHINKING OUR APPROACH TO TEACHING SYNONYMS, ANTONYMS AND CATEGORIES

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DISCLOSURES

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- No disclosures

AGENDA

- Introduction
- Review what we understand about categorizing (words/language based)
 - Establish a framework for intervention
- Categorizing 2.0
 - Therapy Ideas
- Review what we understand about synonyms and antonyms
 - Establish a framework for intervention
 - Therapy Ideas



**“Do the best you
can until you know
better. Then when
you know better,
do better.”**

Maya Angelou,
Author

THINKING ABOUT CATEGORIZATION

What age/grade students are you working with?



Where did you learn to teach/remediate categorization?



What types of errors do you see in your students who are working on categorization?



Why are they having trouble with categorization?

WHAT IS CATEGORIZATION?

- The ability to render discriminably different things equivalent
- To group the objects and events and people around us into classes and to respond to them in terms of their class membership rather than their uniqueness (Bruner, Goodnow & Austin, 1956)
- A basic cognitive ability that allows a person to use a word appropriately in a variety of contexts (Morehead & Morehead, 1976)
- Semantic development is dependent upon the ability to classify similar objects in some way (deVilliers & deVilliers, 1978)

(Partyka & Kresheck, 1983)

CATEGORIZATION- IT'S WHAT WE DO!

- Categories especially taxonomic categories (classification such as animal, plant, mineral) help us learn about the world
- Categories permit efficient storage and retrieving of information, so that we do not need to keep track of every individual item we encounter
 - Don't necessarily learn a distinct name for every item, but learn a set of features (e.g., recognize a number of different types of dogs, but may not know the names of all)
- Categories promote inferences- extend knowledge beyond past experiences into the future- it allows us to make predictions that guide behavior
- Understanding how items go together is foundational to adaptive action and problem solving.

(Gelman & Meyer, 2011; Young, 2011)



DEVELOPMENT OF CATEGORIZATION

- Categorization is evident at a very young age
- Our focus will be on students from age 2 years through elementary school/**period of rapid growth in categorization**
- TYD children begin correctly use taxonomic (fruits), and script categories (breakfast foods) from the age of 3 years
- Taxonomic and script categories appear to develop simultaneously
- Evaluative categorization (junk food) occurs later
- Categorization is influenced by social and environmental bias when child is learning category members

(Gelman & Meyer, 2011; Young, 2011)

HOW WE CATEGORIZE

- Develop semantic categories using “the basic level.”
 - “Middle level of specificity”
 - In between the most general (a thing) and the most narrow (official Red Ryder, carbine action, 200-shot, range model air rifle, with a compass in the stock and this thing that tells time)
 - Children describe things at the basic level so that they can categorize in the most useful way possible

(Aguilar, Plante, & Sandoval, 2018; Young, 2011)

WHAT TYPES OF CATEGORIZATION ERRORS DO WE SEE IN CHILDREN WITH DLD?

- Children with DLD do not attend as well/reduced sensitivity to the semantic features of words
- Children with DLD do not “know” words as deeply as their TYD peers. They know fewer features and/or less about the features.
- Recognize fewer relationships/features among category members
- Difficulty Identifying multiple members of a specific category
- Difficulty recalling the names of objects within a category
- Difficulty stating the category label

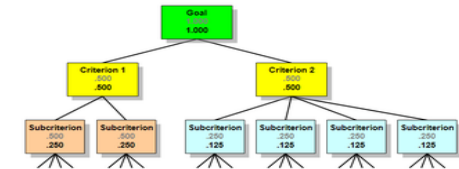
Aguilar, Plante, & Sandoval, 2018; Partyka & Kresheck, 1983)



FOCUS ON THE CAUSE

- **“While it has long been known that we need to focus on the causes of language impairment rather than the symptoms, much research has focused on the nature and evolution of symptoms” (Simon-Cereijido et al., 2020, p1159)**
- Categorization intervention is focused on improving the child’s semantic system
 - Careful selection of therapy materials to make pattern explicit
 - Context is provided to enforce melding of previous experience/knowledge with new knowledge
 - Most treatment time focuses on quality input/increased repetition and less production- think monitoring over time rather than immediate responses

UNDERSTANDING CATEGORIZATION TO INFORM OUR THERAPY



- Unlikely that our category knowledge exists as an exact set of hierarchies
- Lexicon may be better explained as a web of interconnected items. Related categories activate one another when one is accessed. A sort of “spreading activation model.”



- The traditional hierarchy may be present/useful when learning a category

(Young, 2011)

UNDERSTANDING CATEGORIZATION TO INFORM OUR THERAPY

- Newer research is suggesting that storage of semantic categories is widely distributed in the brain and not housed in one particular area (e.g., temporal lobe)
- Researchers studying brain activation for sentences referring to motion found that when we are processing the sentence, the primary motor regions of our brain are also activated.
- The same portions of the brain that control our actions are also involved in understanding action words/language related to it.



EXAMPLES OF CURRENT MATERIALS



CATEGORIZATION MATERIAL EXAMPLES

SUPER DUPER PUBLICATIONS | CATEGORIES QUICK TAKE ALONG® MINI-BOOK | EDUCATIONAL LEARNING RESOURCES FOR CHILDREN



Have students listen to and answer each prompt. Educator/parent will use professional judgment to evaluate the answers. The answers provided in red are suggestions; there may be several acceptable answers for each prompt. Some prompts elicit answers that are individual to each student.

CATEGORIZATION MATERIAL EXAMPLES

SUPER DUPER PUBLICATIONS | NAME THAT AROUND THE HOME CATEGORY FUN DECK



Name That Around The Home Category! Fun Deck® Game Ideas C

Name That Around The Home Category! Fun Deck® contains 56 illustrated cards. Each card has three pictures with an open-ended sentence ("Shades, curtains, and blinds are ____." (*window covers*)).

The student listens to or reads the card and then names a category that matches the items. For more advanced practice, challenge your students to name more than one category per card.

You can use these cards in order, randomly, or by subgroups. To allow your child to work on specific characteristics by subgroups, we have arranged the cards by categories. The answers provide one possible category for each card.

© Super Duper®

#FD-126

Name That Around The Home Category! Fun Deck® Game Ideas D

Card Categories

Cards 1–5 – Bedroom

Cards 6–12 – Bathroom

Cards 13–19 – Family Room/Den

Cards 20–27 – Kitchen

Cards 28–30 – Laundry Room

Cards 31–39 – Outdoors

Cards 40–56 – All Around

1. Name It! - Shuffle cards and lay facedown in a pile. Player One picks up the top card and names the category. Player receives one point for each correct category named. Play continues in turn. Player with most points wins! For additional practice, players receive a point for each additional category named for each card. For one or more players.

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IMPLICATIONS FOR THERAPY

- Labeling matters
- Teach by comparing categories rather than individual items
 - Tell me things that are the same about cats and dogs V. Tell me some things that are the same about this pictured cat and dog
 - Focus on less obvious/ category features V. Focus on superficial or spurious features (they are both brown)
- Provide diverse examples of category members (horse and rabbit/ horse and zebra)
- Include more diverse/less typical category members to increase semantic depth
- Use a variety of categorization tasks

(Gelman & Meyer, 2011; Shivabasappa, Peña & Bedore, 2019)

VARIETY OF CATEGORIZATION TASKS

1. **Identifying and describing attributes**
2. **Matching** - describing the attribute of “sameness”
3. **Sorting** - making decisions about attributes to group
4. **Comparing** - making decisions about the amount of attributes/ need adjectives to describe
5. **Ordering** - identify and describe attributes and arrange items by increasing or decreasing amounts of an attribute

Nesk Kids (Sept. 2, 2019). *Why is classifying and sorting important for young kids?*

<https://www.neskkids.com.au/blogs/news/classifying-and-sorting#:~:text=Classifying%20and%20sorting%20activities%20help,foundations%20for%20later%20problem%20solving>

THERAPY IDEAS

- **Statistical Learning/ High variability of exemplars**
- **Categorizing 2.0**
 - More examples less production especially at the start of instruction
 - Spreading activation/features and related semantic context
 - Example The Little Old Lady Who Swallowed a Turkey/ Leaves
 - Word sorts
 - List-group-label
 - Priming the semantic pump/relating known knowledge to the task



THERAPY IDEAS- STATISTICAL LEARNING (PLANTE & GOMEZ, 2018)

- Aka implicit learning
- Process by which learners extract “regularities” from the world without conscious intent or knowledge of the patterns
- Implicit vs. Explicit Learning

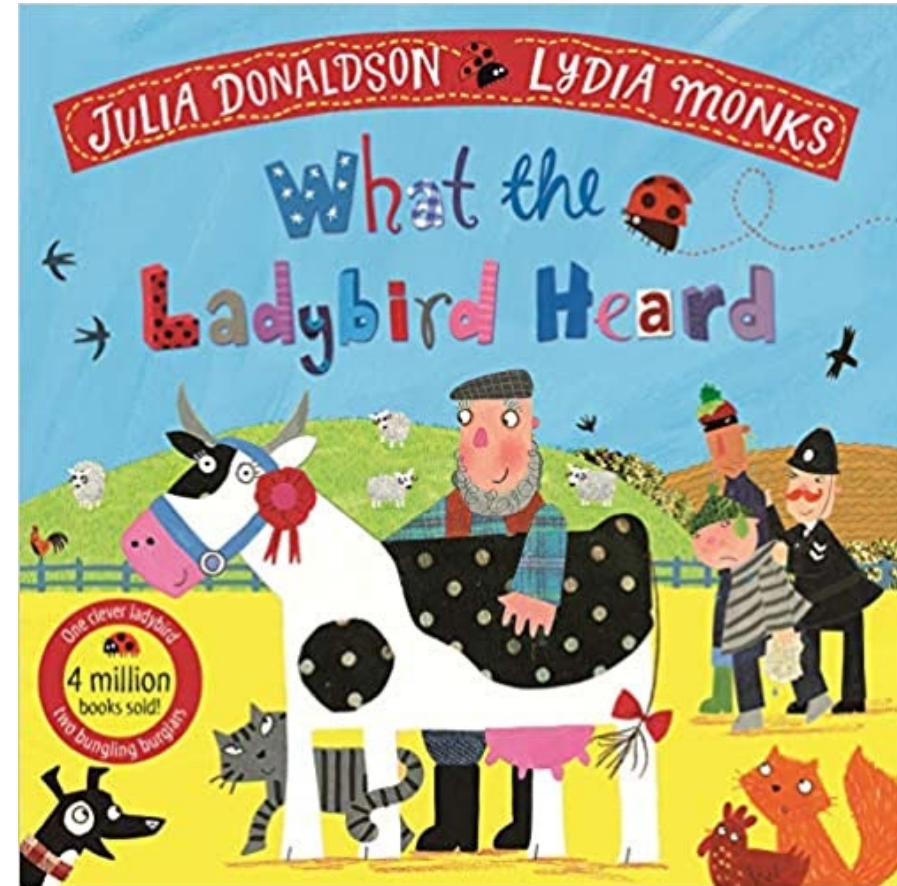
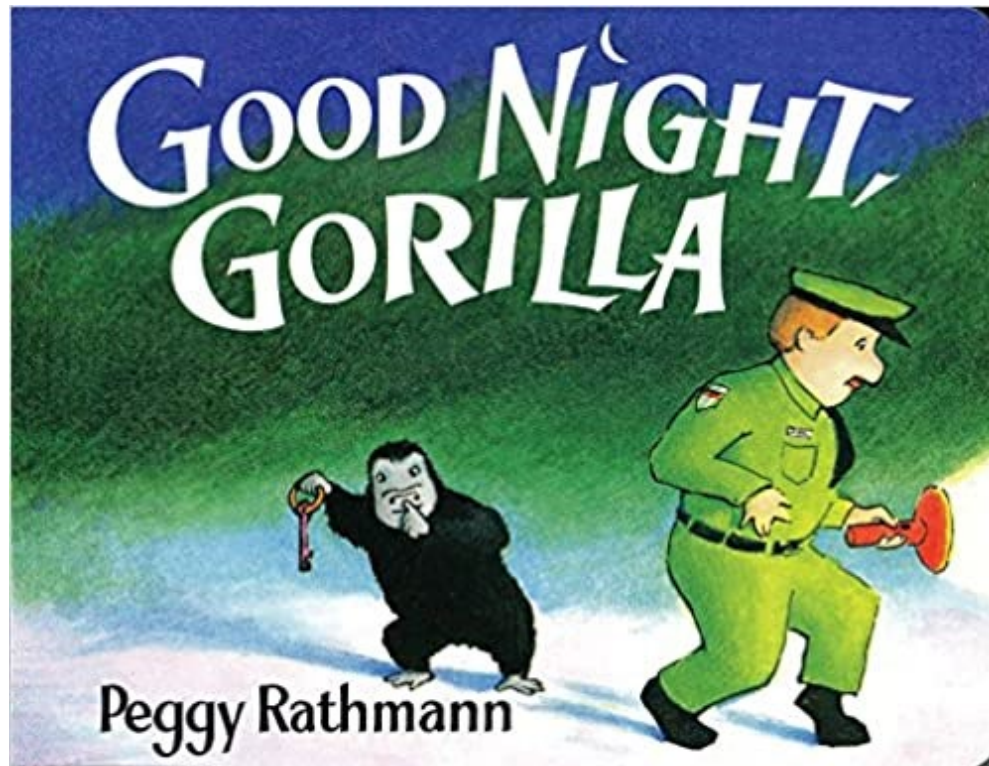


STATISTICAL LEARNING PRINCIPLES FOR CATEGORIZATION

- **Frequency**
- Children with DLD require more exposures to category members and at a higher density (more exposure per unit of time)
- **Consistency & Variability**
 - Make the treatment target (the concept of the category) most consistent
 - Must include a variety of examples of the vocabulary members
 - Must include non-typical examples to promote semantic learning

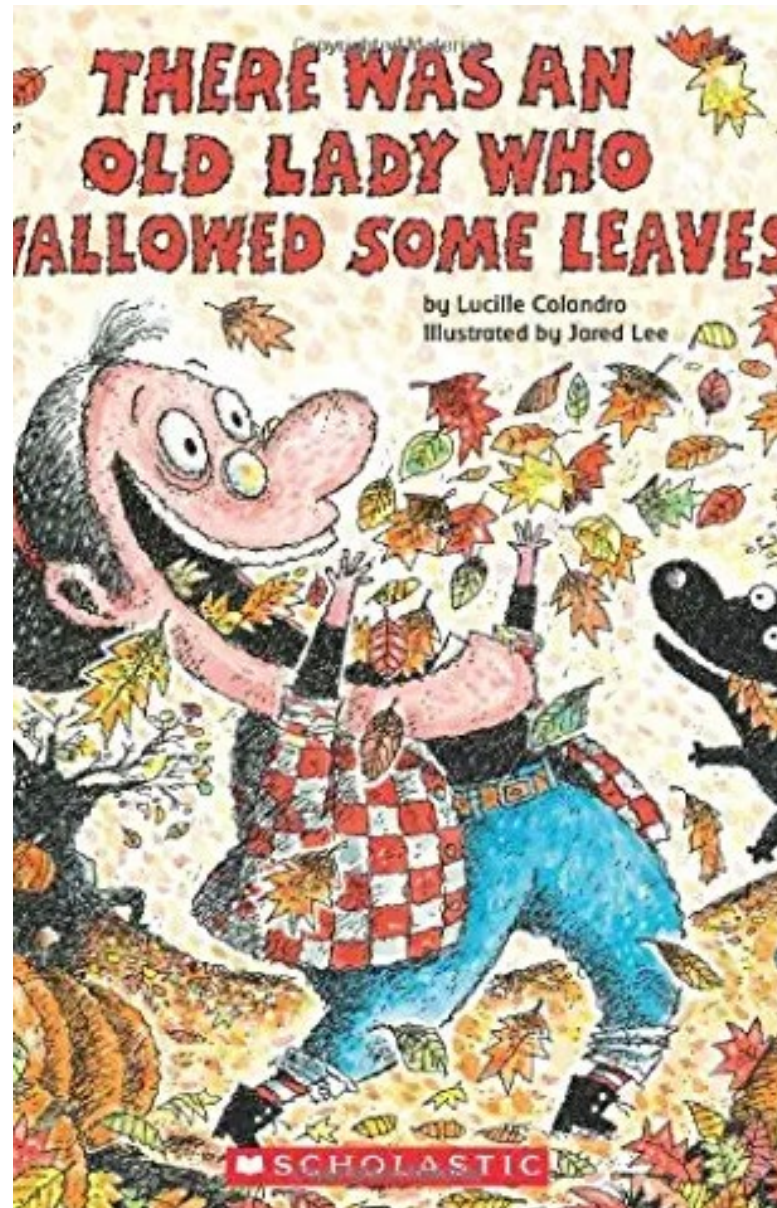
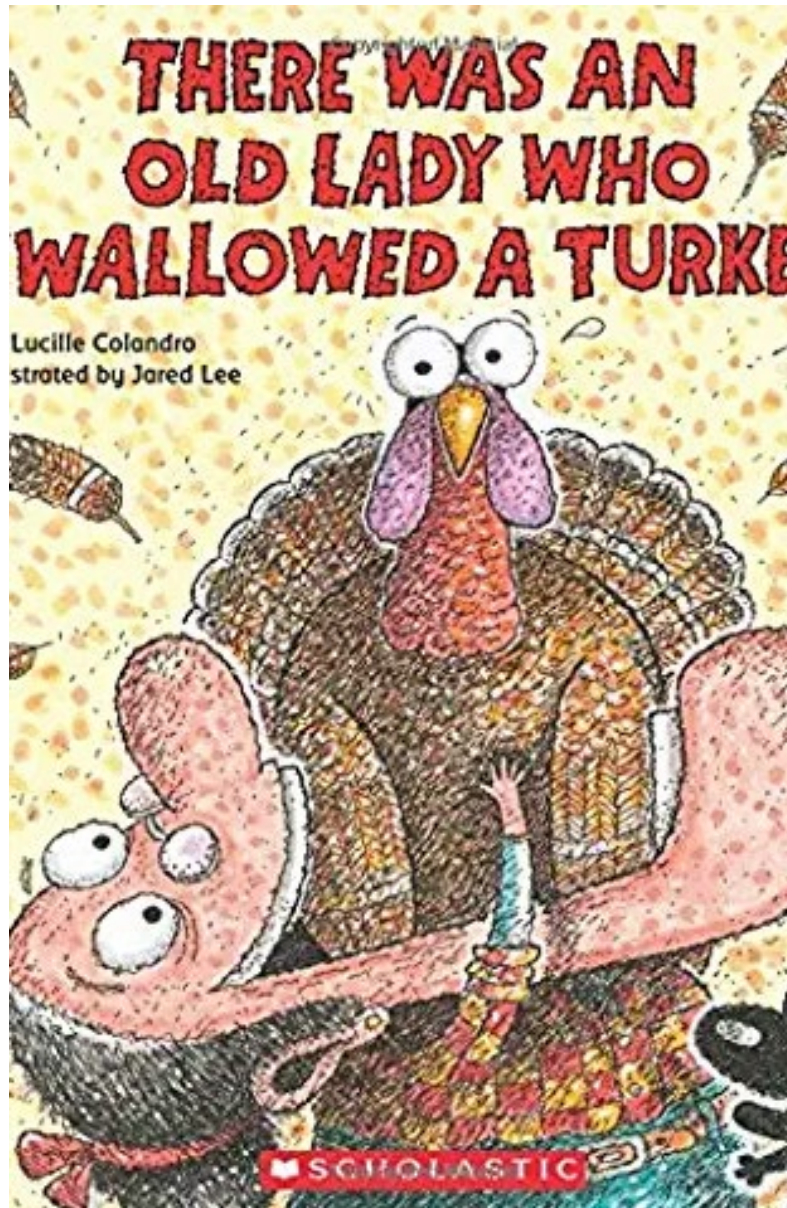
(Adapted from Plante & Gomez, 2018)

CATEGORIZATION EXAMPLE WITH STATISTICAL LEARNING PRINCIPLES



THERAPY IDEAS

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CATEGORIZATION THERAPY EXAMPLE

- **TWAOLWSA Turkey**
- Nouns: turkey, football, hat, balloon, boat, wheels, horn of plenty
- Verbs: swallow, throw, cover, bump, anchor, drive
- **TWAOLWSS Leaves**
- Nouns: leaves, shirt, pumpkin, pole, pants, rope, hay
- Verbs: sneeze, swallow, fill, wear, prop up, cover, tie up

LIST-GROUP-LABEL

- https://www.readingrockets.org/strategies/list_group_label
- Non- fiction books
- Expand to include action words and describing words

PRIMING THE SEMANTIC PUMP/ RELATING KNOWN KNOWLEDGE TO THE TASK



- **Provide Context**
 - Select vocabulary for classroom materials/favorite character/show/ or use the current theme
 - Provide environmental cues (calendar, room decoration, weather, action photo, pages from book)
- **Vary your categorization tasks:** sorting, labeling, describing, naming, differentiating categories by feature,
- **Remember to include less typical category members**
- **Provide visual structure** for describing or labeling (EET, Describing Map)
- Complete semantic webbing on white board/writing or drawing
- **Save decontextualized naming of category members for periodic progress monitoring**
- **The Category Kit by The Speech Bubble SLP**
<https://www.teacherspayteachers.com/Product/The-Category-Kit-5288241>



SYNONYMS AND ANTONYMS



EXAMPLES FROM CCSS

- L.3.5 Demonstrate understanding of word relationships and nuances in word meanings. a. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps). b. Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful). c. Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, wondered).
- L.4.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Demonstrate understanding of words by relating them to their antonyms (opposites) and synonyms (words with similar but not identical meanings).

EXAMPLES FROM CCSS

- L.5.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figurative language, including similes and metaphors, in context. b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
- L.7.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context. b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words. c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).



FRAMEWORK FOR INTERVENTION

- TYD students learn synonyms and antonyms through conversation, reading and experiencing new words in context that highlights meaning
- We have already established the challenges students with language disorder experience with learning words
- Therapy should work with impaired semantic system
 - Synonyms and antonyms included as part of rich vocabulary instruction
 - More instruction and less productions
 - Instruction occurs in context

THERAPY IDEAS

- **Antonyms & Synonyms**
 - Rich vocabulary Instruction Examples
 - Pippi Longstocking
 - Henry's Freedom Box
 - Semantic gradients
 - More Parts

SYNONYMS & ANTONYMS



- Provide regular practice with language competent adult discussion- including calling attention to features in context and relate to words you are teaching
- Character comparison of Pippi and Annika to teach synonyms and antonyms
- Have student's create pictures of Pippi and Annika or use slide provided.
- Provide characteristic cards for Pippi and Annika (Create while reading the story and have some created)
- As you read the story select the characteristics that match Pippi and Annika/Act out the characteristics
- Then introduce idea of opposites by comparing characteristics
- Create synonym to antonym gradient for Pippi and Annika
- Create word nuance gradients for selected characteristic words
- Complete these same activities using your students!

COMPARE PIPPI AND ANNIKA

ILLUSTRATIONS FROM
[HTTPS://WWW.ASTRIDLINDGRE
N.COM/EN/CHARACTERS/PIPPI-
LONGSTOCKING/FUN-WITH-
PIPPI](https://www.astroidlindgren.com/en/characters/pippi-longstocking/fun-with-pippi)



ANTONYM TO SYNONYM GRADIENT CHART PIPPI AND ANNIKA

Free-spirit

Obedient

footloose

individual

fancy free

compliant

reserved

Law abiding



Unpredictable – predictable (expected, unexpected, likely, certain, uncommon, unique)

Extroverted- introverted (outgoing, social, reserved, quiet, friendly, agreeable)



WORD NUANCE EXAMPLES

Word Nuances for Pippi

- Extroverted, social, outgoing, friendly, animated, spirited
- Strong, sturdy, tough, hardy, mighty, powerful
- Independent, self-sufficient, self-supported, free, liberated, unsupervised

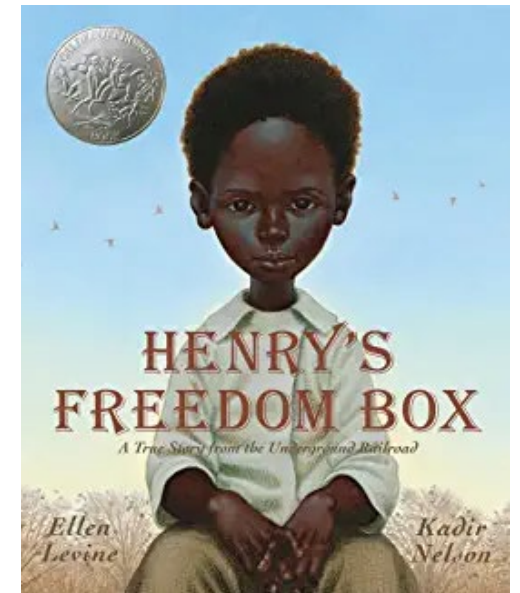
Word Nuances for Annika

- Good, true, upright, honest, just, commendable
- Obedient, law-abiding, submissive, dutiful, disciplined, manageable
- Charming, darling, delightful, pleasant, pleasing, captivating

1. Use the paint chips as a visual support
2. Discuss that synonyms are words with similar meanings that vary along a continuum of weaker to stronger meaning
3. Ask students to arrange the words along the paint chip from less to more and explain their reasoning
4. The discussion of how the words are organized with the SLP is the critical instruction

SYNONYMS & ANTONYMS

- Henry's Freedom Box by Ellen Levine and Kadir Nelson
- Select vocabulary from story and discuss how the words have different definitions
 - Good ("Henry's master had been good to Henry," "you are a good worker Henry")
 - Twist ("Twist that tobacco," "Henry twisted the tobacco," "his heart twisted in his chest")
 - Mail ("Mail I guess, I am mail, thought Henry," "but not the kind they imagine!")
- Identify Henry's feelings at various points in the story
 - Create storyline for significant events in the story
 - Identify Henry's feelings during each of these events.
 - Discuss Henry's behavior and how that relates to how he feels
 - Act out/ demonstrate feelings and behaviors
 - Create a list of feelings and use dictionary or thesaurus to generate synonyms
 - Select the emotion synonyms from your list and add to the storyline

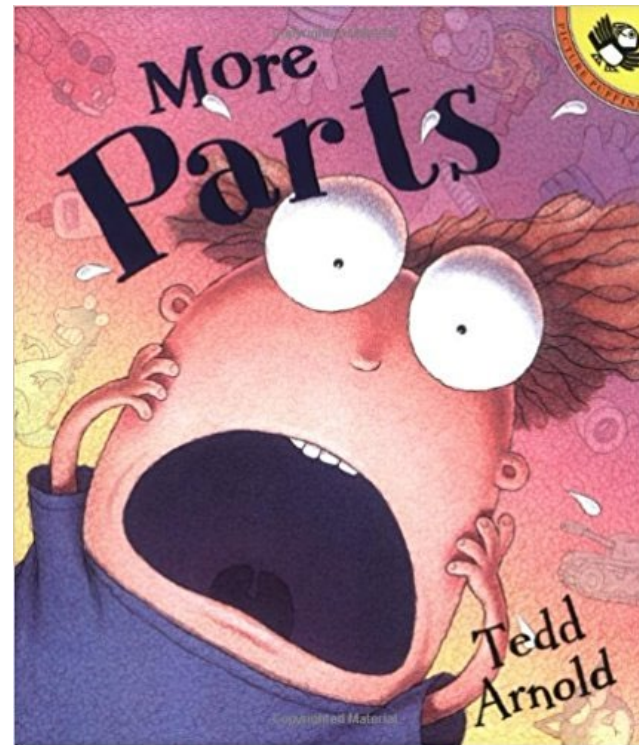


TEACHING SYNONYMS, ANTONYMS & MULTIPLE MEANING WORDS

Resources available on TpT

<https://www.teacherspayteachers.com/Product/Understanding-and-Using-Idioms-based-on-the-book-More-Parts-by-Tedd-Arnold-3434368>

- Teaching idioms
- Teaching synonyms and antonyms using semantic gradients
- Using paint chips to teach nuances in word meanings



TAKE-AWAYS

- Language Intervention is complex!
- Integrate categorization and antonym and synonym work within your narrative instruction or within broader goals
- Integrate movement, objects, and vary types of categorization tasks
- Always provide context
 - It helps support semantic system
 - It helps to “make evident” the pattern or features
- Switch out reinforcer games for interactive categorization and vocabulary tasks



THANK YOU!

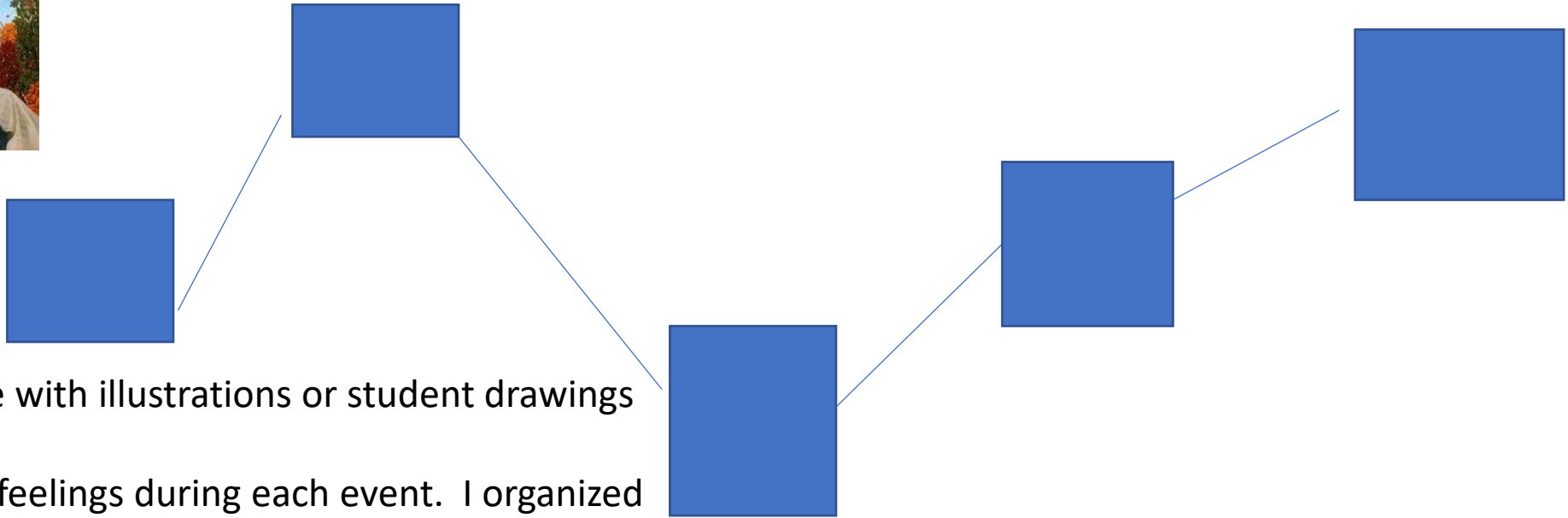
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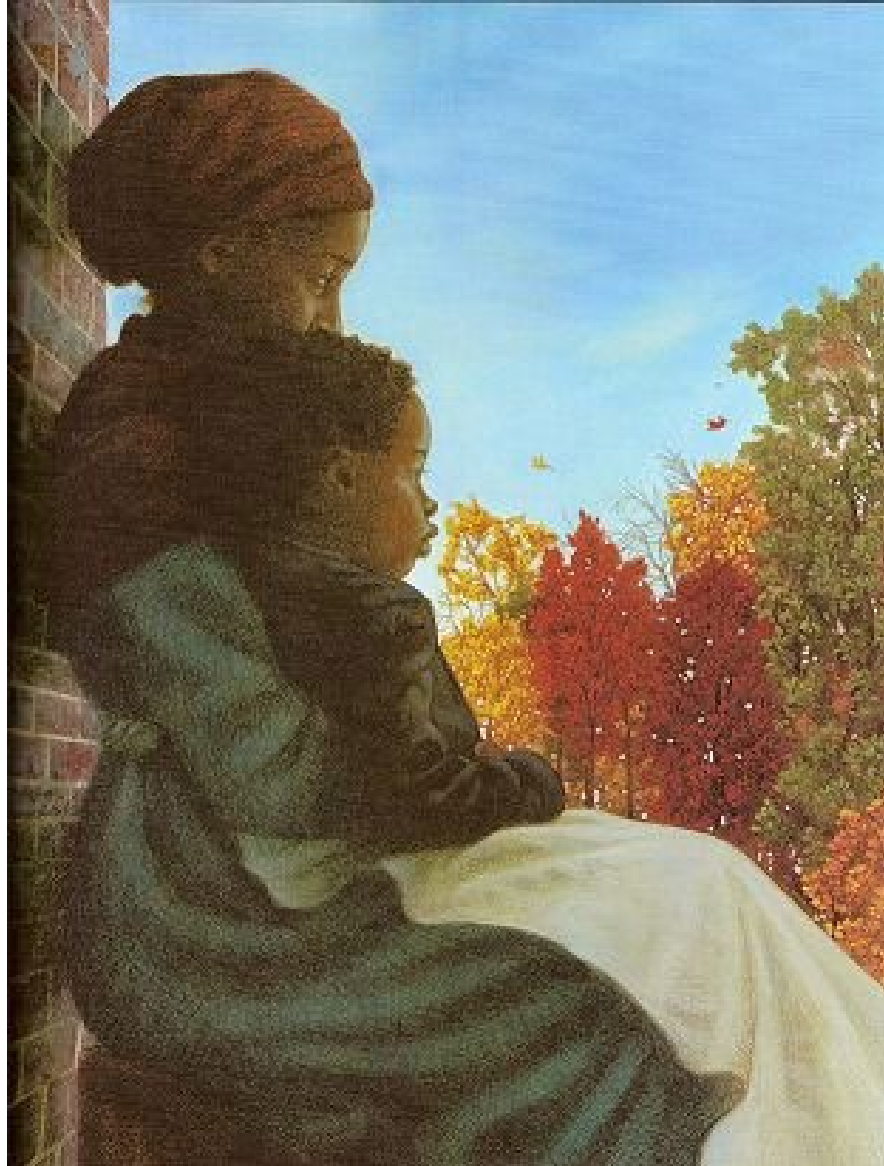
Appendix A

- Create a story line for the book *Henry's Freedom Box* by Ellen Levine & Kadir Nelson
- Reference and [Link to Illustrations for Henry's Freedom Box](#)

Sample Story Line for Henry's Freedom Box



1. Create Story line with illustrations or student drawings from book
2. Discuss Henry's feelings during each event. I organized the story line to reflect high and low points in Henry's life.
3. Create a list of synonyms for feeling words and then add to story line



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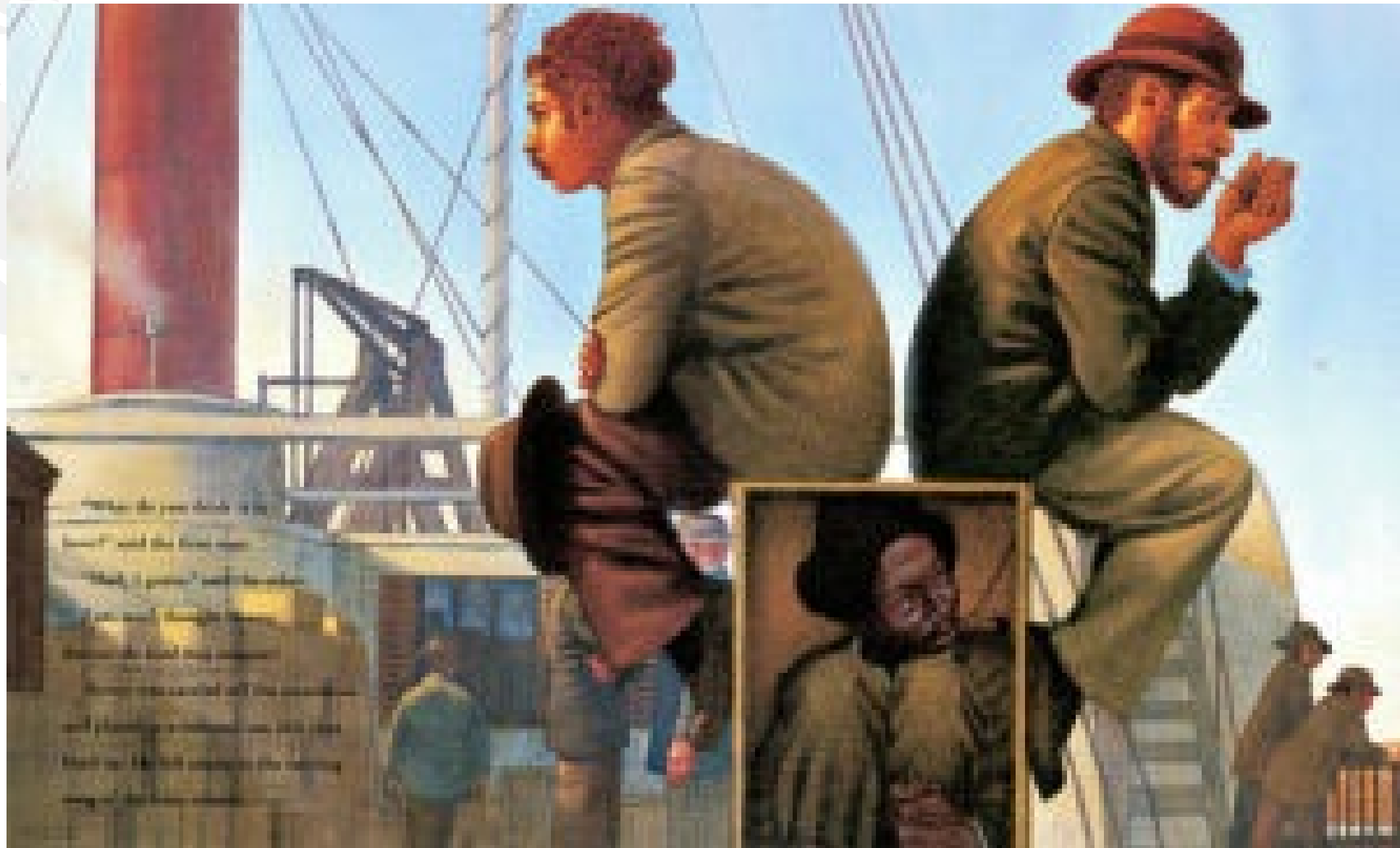




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Retrieved from <https://www.pinterest.com/pin/158400111871854563/>



Retrieved from <https://shop.scholastic.com/parent-ecommerce/books/henrys-freedom-box-9780439777339.html>

He awoke to loud knocking.
"Henry, are you all right in there?"
"All right!" he answered.
The cover was pried open. Henry
stretched and stood up.
Four men smiled at him.
"Welcome to Philadelphia!"



At last Henry had a birthday — March 30, 1849, his first day
of freedom! And from that day on, he also had a middle name.
Everyone called him Henry "BOX" Brown.

Rethinking our Approach to teaching Synonyms, Antonyms and Categorization
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