

Session 4 – Teacher: Teaching to Support Transfer, cont. and Vocabulary

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Objectives - Overall

- The learner (1), text/material (2), teacher (3-7)
- LEARNER: Comprehension and learning
- TEXT: Layers of complexity
 - What makes texts or content complex?
 - What matters? Where is our focus?
- TEACHER: The importance of teaching to support transfer; vocabulary, materials, comprehension skills, and writing skills

Objectives - This Session (4)

- Review: The learner and the text
 - Selecting important ideas that transfer
- Review: Teachers reduce cognitive load
- NEW: The importance of Depth and Breadth of Instruction
 - Concept mapping
 - Another example: Little Great White
- Integrating vocabulary
 - Selecting words
 - Defining words
 - Using words
- ***See glossary for terms and explanations

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Review

Learner

- Processes information: Text-based (what the text says) and situation model (what the text means)
- Requires prior knowledge and must attend to relevant information so that transfer occurs

Text

- Presents information Surface features (stated) and deep structure (unstated concepts)
- Contains layers of complexity: Structure, language, knowledge

Learning Conditions

- Students comprehend, learn, and are then able to apply (i.e., transfer):
 - (1) students require prior knowledge of the concepts.
 - (2) students need to know to look for the deep structure

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Reduce Cognitive Load

- Working memory holds a small amount of information at one time
 - Therefore, instruction must avoid overloading memory

TEACHER

- Evaluates *text* and supports *learner*
- Reduce cognitive load by building and activating prior knowledge
- Teach content well and provide opportunities to generalize to other settings - transfer
- Help students retrieve knowledge automatically

How? Depth of Instruction

- Teach concept with relevant information
 - Students learn the concept with ideas that connect to prior knowledge.
 - For instance, immigration, citizens' rights, rebellion, habitats, or the life cycles are part of students' everyday lives, they just need to know it.
- Relevant information provides a solid foundation
 - Connects known information with unknown
 - Serves as an anchor for learning

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How? Then Breadth of Instruction

- Teach the concept with varied examples or "constant practice in generalization." (Rugg, 1921)
- Provide students opportunities to detect differences and similarities of the same concept (patterns) across various situations.
 - Understand that the concept in one situation is also present in the second situation detecting what is the same and what is different in both situations. This leads to transfer (Hattie & Donaghue, 2016).
- Students must learn concepts well enough to achieve *automatic retrieval* and be able to recognize these concepts in varied settings.
- Concept mapping across ideas

CONCEPT: Rebellion and Citizens' Rights

People or events who fought for rights

- *Civil rights: Rosa Parks
- *Slavery: Underground Railroad
- *Women's suffrage
- *Migrant workers' right
- *Education rights
- *Holocaust

Current event/s

- *Black Lives Matter movement
- *Parents fighting for families being deported; freedom of assembly
- *Malala Yousafzai: Education
- *Greta Thunberg: Climate/Environment

How actions influence change

*Bill of rights and various amendments including: 1st, 13th, 14th, 15th, 19th amendment

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CONCEPT MAPPING: Rebellion

Event/Time period	Who was involved?	Reason	Method	Outcome	Other important ideas
Proposed business replacing playground and park	Business owners; government; local families	Families were angry because there are no other parks	They boycotted the business; picketed in front of business	Government found another location for business	
Montgomery Bus Boycott; Civil Rights Movement – 1955-56	MLK, Jr. and the Montgomery Improvement Association - Alabama	Rosa Parks was arrested for not giving up her seat to a white person	Boycott riding the bus	Led to others across the country and to the Civil Rights Movement and nonviolent resistance	
Women's					

Questions or Comments?

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PRACTICE: Ideas that Transfer

Little Great White

What are the Big Ideas?

- Bringing a white shark to the aquarium wasn't easy. For fifty years aquariums have tried to keep white sharks alive, but the sharks would not eat in captivity.
- The aquarium had a special floating pen waiting in coastal waters nearby. While the shark lived in the pen, she was fed the same things she would have eaten in the wild—smaller sharks and other fish. The floating pen helped her get used to living in a small space.
- As the white shark got bigger, she began hunting her tankmates. She bit and killed two soupfin sharks.

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Little Great White

- What are the deep structures or big ideas (concepts)?
- Are these ideas that recur transferable? Can students use this information again?
- How can teachers make these ideas relevant?

Recurring Ideas

- What are relevant examples of habitat?
 - Determine information the student can understand and connect to. Teach for **depth** so that student understand the concept and **reduce cognitive load.**
- What are other examples of habitat?
 - Teach for **breadth** so that students can apply it in varied settings. This promotes **learning and transfer**.

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Teaching Vocabulary

Expanding Vocabulary Teaching Vocabulary

Cognitive Academic Language Proficiency (CALP) focuses on proficiency in academic language or language used in the classroom in the various content areas. Academic language is characterized by being abstract, context reduced, and specialized. In addition to acquiring the language, learners need to develop skills such as comparing, classifying, synthesizing, evaluating, and inferring when developing academic competence.

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Teaching Vocabulary

- See Shanahan's blog (resources):
- Word knowledge is multi-dimensional.
- Words don't stick easily.
- Words need to be used in lots of ways.
- Words need to be connected to kids' lives.
- Words need to be related with other words.

Planning Vocabulary Instruction

- 1. Word Selection
- 2. Word Meaning
 - Use **student-friendly** explanation and **relevant** examples
- 3. Word Use
 - Decontextualize! Teach the word, use in the context, get it out of context
 - Multiple use of words listening, reading, speaking, writing

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Expand or Teach Vocabulary

- Key words associated with recurring concepts during instruction of content, teachers can ensure vocabulary use
- Known ideas vs. New (not yet known) ideas
 - EXPAND: Teach new word in conjunction with the known word, emphasize the use of the new word.
 - TEACH: Teach a new concept or idea before labeling it.
- Student must be able to understand the concept of the word
 - \bullet Ex: Teaching the word "Taxation" in grade 4
 - Ex: Teaching the word "Rebellion" in grade 4

Vocabulary - Tier 1, 2, and 3

- Tier 1 are everyday words, requiring little to no instruction since they are easily attained and mastered.
- Tier 2 words are worthy of focused instruction. These words require explicit instruction since they do not occur during students' everyday conversations words include resistance, comply, defiant, and so on.
- Tier 3 words are discipline specific. These words are needed to learn information but are not used regularly beyond understanding the subject matter.

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Example - Selecting Words

- What words can we teach that we will revisit?
- Are there related words that need to be taught to expand understanding?
 - When the elections were held in Britain, only the people over in Britain got to vote. The colonists protested, saying, "We didn't get to vote for the people who made the laws, so why should we have to follow them?" As the colonists' anger swept across the land, you could hear the cry, "No taxation without representation."

Categorize and Label Known vs. New

Tier 1	Tier 2	Tier 3

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Choosing Academic Words

- Academic words cross content these words are found in various contexts
- Be sure that you can use these words often.
- For example, when teaching content use words (known ideas):
 - Conclude
 - Represent
 - Persuade
 - Support
 - Defend

New Academic Word	Synonyms	Antonyms	
Conclude	End	Begin	
	Finish	Start	
Represent	Stand for	Pretend	
_	Correspond to	Distort	
	Signify		
Resolve	Settle	Disagree	
ICSOIV C	Come to a decision	Indecisive	
	Come to a decision	indecisive	

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Including Words with Multiple Meanings

- Common everyday words have many uses
- These words often cause confusion if the word is used in a way that students have not heard the word.
 - Charge
 - Right
 - Bill
 - Party
 - Run
 - Check

Word Meanings

Student-friendly explanation Synonyms/Antonyms – related words Cognates Morphology

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Student-Friendly Explanation

- Explain the word so that students can access the meaning of the word
 - For instance, rebellion means "when people try to change the rules by refusing to obey them."
- Incorporate relevant examples
 - Connect the word to a current or local event.
 - For instance, explain that when students refuse to eat the lunch food until burgers are an option, they form a rebellion. A rebellion means when students stand up for something and fight those in power.

Synonyms and Antonyms: Semantic Gradients

- Are there familiar words to connect with advanced words? Rebel disobey, resist, go against, obey, comply
 - Expand vocabulary with known and RELATED words to **expand** vocabulary

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Obey -Disobey	Harm – Help	Conflict - Peace	Afraid - Brave
Obey			
Disobey			
Conform			
Resist			
Submit			
Defy			
Dissent			
Comply			
Rebel			

Using Cognates

- For English Language Learners are there cognates to support learning the new word?
- Cognates are words in two languages that share a similar meaning, spelling, and pronunciation.
- 30-40% of all words in English have a related word in Spanish
 - rebellion-rebelión
 - representation-representación
 - conclude-concluir
 - habitat-hábitat

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Morphology

Verb	Noun	Adjective	Adverb	Other
Comply	Compliance	Compliant	Compliantly	
Defy	Defiance	Defiant	Defiantly	
Rebel	Rebellion Rebel	Rebellious	Rebelliously	
Obey	Obedience	Obedient	Obediently	
Defer	Deference	Deferent	Deferentially	

Pictures, Realia, or Demonstration



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Word Use

Integrate words throughout a unit

Decontextualize

Use Words in Lots of Ways

- Receptive: Listening and Reading
- Expressive: Speaking and Writing
- Teachers say the word, students repeat the word,
- Teachers write the word, students read the word
- Students practice the word while speaking and writing
- Decontextualize and integrate the words

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RECAP: Planning Vocabulary Instruction

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Instructional Unit: Rebellion and Citizens' Rights

One "draft" example to plan: topics/events with a few vocabulary words

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Select key words

Rights, activism, rebellion, freedom, liberties, laws, and many other words related to rebellion and rights

Include related words

- *Semantic gradients including synonyms and antonyms related to known and to-be-learned words (e.g., comply, defy, obey, disobey, resist, and so on)
- *Morphology including roots/bases and affixes: (e.g., rebellion, rebel/s, rebellious, etc.).
- *Academic words: (e.g., defend, represent, persuade, demonstrate, support)
- *Multiple meaning words (e.g., right)

Check for cognates: Rebel

Instructional approaches: Vocabulary study notebook to include semantic gradients, morphology charts, concept word maps

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Next Session: TEACHER, Cont.

- Vocabulary, cont. word maps, semantic feature analysis, independent word learning strategies (context clues, using reference materials)
- Materials incorporating varied resources
- Unit planning immigration (cultural and racial diversity; colonization)
- Units: Examples of concepts in Social Studies, Science, and ELA

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