



Session 3 – Teacher: Teaching to Support Transfer

1

#### **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
- 2

# **Objectives – This Session (3)**

- Review: The learner and the text
- Selecting important ideas that transfer
- Big ideas in social studies civics and history
- Unit plans: Building knowledge and vocabulary
  - Reducing cognitive load
  - Depth of instruction
  - Breadth of instruction
  - Concept mapping across ideas
- \*\*\*See glossary for terms and explanations

#### Review

- Learner processes information: Text-based (what the text says) and situation model (what the text means)
- Text presents information: Surface features (stated) and deep structure (unstated concepts)
- Learner requires **prior knowledge** of the **concept** and must attend to **relevant** information so that **transfer** occurs
- Text has 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
- When students determine the deep structure of the text (concepts) and comprehend what the text means (construct a situation model), they are then likely to determine that the Boston Tea Party and the Montgomery Bus Boycott are both examples of rebellion.

5



# Selecting Ideas that Transfer

7

HISTORY

Conflict: War and Rebellion Movement: Migration and Immigration Discovery: Exploration and Invention

(Lord, Noel, & Slevin, 2016)

8

CONFLICT - REBELLION NAEP content or concepts Boston Tea Party; Shay's Rebellion Underground Railroad Women's voting rights Civil rights Workers' rights Orhid labor Political rights Protest methods OTHER REBELLIONS Local Recent

CONFLICT - WAR NAEP content or concepts American Revolution Civil War World War II Cold War Communism Vietnam Military recruitment and spending OTHER WAR-RELATED EVENTS Recent wars State-related

10

MOVEMENT - IMMIGRATION NAEP content or concepts Pilgrims English settlement European settlers Puritans Southwest missions Spanish colonies Slave trade US immigration: Early 20<sup>th</sup> century Europeans Ellis Island and the Statue of Liberty OTHER Current events Local

DISCOV	RY
NAEP content or concepts	Specific Concept
Early European exploration Lewis and Clark Lunar exploration	Exploration
Benjamin Franklin Elizabeth Fuller Inventions change lives	Invention

13



# CIVICS

Governance: Balance of Power and the Electoral Process

Citizenship: Citizen's Rights and Responsibilities (Lord & Noel, under review)

GOVERNANCE	
NAEP content or concepts	Specific concept
Three Branches of Government Rules and Laws: Purpose, who is protected; the process of law making Role of local government Functions of state Government US Constitution Declaration of Independence Roles of US President Roles of the Supreme court Peace Treaties United Nations - peace-keeping, purpose and plan	Balance of Power
Citizens vote and why it is important Relationship of democracy and voting Majority decides Term of office Political parties Name current president	Electoral Process

CITIZENSHIP	
NAEP content or concepts	Specific Concept
Explain citizen's responsibilities and good	Citizen's
citizenship	Responsibilities
Meaning of civic duty	1
Defacing public property	
Dress rules	
Volunteerism	
Knowledge patriotic symbols and holidays:	
Statue of Liberty	
Independence Day	
Memorial Day	
Pledge of Allegiance	
MLK, Jr. – I Have a Dream speech	
Exercise of a right	Citizen's Rights
Rights of US Citizens and Noncitizens	
Freedom of Assembly	
Discrimination	
Right to Legal Council	
Freedom of Speech	



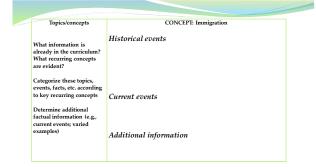
# Instructional Unit: Citizen's Rights

Topics/concepts	CONCEPT: Citizens' Rights
What information is already in the curriculum? What recurring concepts are evident?	People or events who fought for citizens' rights "Civil rights: Rosa Parks "Slavery: Underground Railtoad "Women's suffrage "Migrant workers' right "Education rights
Categorize these topics, events, facts, etc. according to key recurring concepts Determine additional	Current event/s *Black Lives Matter movement *Parents fighting for families being deported and freedom of assembly *Malala Yousafzai: Education
factual information (e.g., current events; varied examples)	<ul> <li>*Greta Thunberg: Climate/Environment</li> <li>How actions influence change</li> <li>*Bill of rights and various amendments including: 1<sup>st</sup>, 13<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup>, 19<sup>th</sup> amendment</li> </ul>

Vocabulary	
Build language skills of key words associated with recurring concepts	Select key words Rights, activism, rebellion, citizen, privileges, assembly, freedom, liberties, amendments, bills, laws, and many other words related to citizenship and rights
Teach a novel concept or idea before labeling it. (Supports students' conceptual knowledge beyond memorization)	Include related words **senantic gradients including synonyms and antonyms related to known and to-be-learned words (e.g., amend, adjust, alter, maintain, preserve, change, improve, uphold, sustain)
Teach the new word in conjunction with the known word, emphasize the use of the new word.	*Morphology including roots/bases and affixes: (e.g., amendment, amend/s; rebellion, rebel/s, rebellious).
Integrate words throughout a unit; the words should be selected according to topics and concepts and used repeatedly.	*Academic words: (e.g., defend, persuade, demonstrate, support) See <u>https://www.academic-englishuk.com/vocabulary</u> or other websites *Multiple meaning words (e.g., right, bill)
	Instructional approaches (next session)
)	



# Let's try one - Immigration



Vertex Reg Verticity         Certex Reg Verticity           Concepts         Include related words:           Defore labeling it.         Include related words:           Supports students' conceptual Removization)         *Synonyms and antonyms related to known and to-be-learned words           Teach the new word in conjunction with the known word, emphasize the use of the ewe word.         *Academic words:           Integrate words throughout a unity the words should be selected according to topics; and         *Multiple meaning words	Vocabulary	Immigration
before labeling it. (Supports students' conceptual knowledge beyond memorization) *Morphology including roots/bases and affixes: *Cademic words: *Cademic words: *Multiple meaning words Integrate words throughout a unit; the words should be selected according to loops; and	Build language skills of key words associated with recurring concepts	Select key words:
unit, the words should be selected according to topics and	before labeling it. (Supports students' conceptual knowledge beyond memorization) Teach the new word in conjunction with the known word, emphasize the use of the	*Synonyms and antonyms related to known and to-be-learned words *Morphology including roots/bases and affixes: *Academic words:
concepts and used repeatedly. Instructional approaches (next session)	unit; the words should be selected according to topics and	Instructional approaches (next session)



• Identify *core concepts* that organize our understanding of content – immigration

• Determine *concrete cases* that will allow students to master these concepts effectively – Pilgrims, European settlers, etc.

• (Donovan & Bransford, 2005)

23

## **Reduce Cognitive Load**

Working memory holds a small amount of information at one time
 Therefore, instructional methods should avoid overloading memory (Sweller, 1994)

- Reduce cognitive load by building and activating prior knowledge
- This knowledge must be retrieved automatically
- So, instruction needs to teach it well and provide opportunities to generalize to other settings

## 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 unknownServes as an anchor for learning
- 25

### 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

26

## **CONCEPT MAPPING: Immigration**

Movement/Time period	Transportation	Reason	Outcome/ Assimilation	Other important ideas
Pilgrims/1600s	Boat	Religious freedom		

#### **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?

28

#### **Recurring 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.

29

#### **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.

# • What words can we teach that we will revisit?

- Are there familiar words to connect with advanced words? Environment, dwelling, natural home, and more
- For English Language Learners are there cognates to support learning the new word?
- Habitat natural home of an animal, plant, organism
- Human habitats shelter (relevance and depth)
  Shark habitat ocean (depth)
  Animal habitats various (breadth)

31

#### Language Demands

- Build language skills of key words associated with recurring concepts
- Teach a novel concept or idea before labeling it.
- Teach the new word in conjunction with the known word, emphasize the use of the new word.
- Integrate words throughout a unit; the words should be selected and used repeatedly.

32

#### **Next Session: TEACHER**

- Examples of concepts in Science and ELA
- Vocabulary selection
- Vocabulary instruction
   Conceptual teaching
   Synonyms and antonyms
- Academic words
- Morphology
- Multiple meaning words

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34

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