Technology + Reading Comprehension Strategies = Literacy Instruction Excellence!

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Background

• Based on summer 2017 PD
• Reading comprehension instructional strategies
• Differentiated by instructional level
• Used Judi Moreillon’s books as class textbook
Goals of this session

• Why reading comprehension strategies?
• Crash course in literacy
• 3 specific strategies:
  • Activating/Building Background Knowledge
  • Using Sensory Images
  • Making Predictions and Inferences
• For each strategy:
  • Application
  • Technology support (Use your own device)
Why reading comprehension strategies?

- The Every Student Succeeds Act of 2015, section 2224
  - The “Literacy Instruction Team”
  - This bolsters our collaboration!

- Literacy.... or literacy?
  - Information literacy
  - Learning to read

- It’s a lifelong area of improvement

Source: North Carolina Council on Developmental Disabilities
Crash course in literacy

- Learning to read requires explicit instruction.
- The earliest skills for learning to read involve a predictable, step-by-step process.
  - 4 steps
Stage 1: The Prealphabetic Stage

- Children do not understand that sounds are represented by letters.
- They do understand that printed letters represent a message or information.
- The alphabetic principle
Stage 2: The Early Alphabetic Stage

- **Phonemes**: the individual, discrete speech sounds that make up words.
- “Cat” = /k/ + /ae/ + /t/
- **Phonemic awareness**: the realization that words are made up of segments of speech that are represented by letters.
- **Phonics**: actively teaching children these sound-letter correspondences.

*Source: Patti Jo Rak/flickr*
Stage 3: The Later Alphabetic Stage

- Greater level of proficiency

- Examples:
  - Children attempt to write unfamiliar words.
  - Children attempt to sound out unfamiliar words.

- This is decoding.

- What are sight words then?
Juicy literacy controversy...

Bottom-up vs. top-down argument

= decoding vs. whole-word

What do you think?

Source: Lyndon Hatherall/flickr
Early Literacy Poll

To take the poll:

• From your device, phone, or laptop
• Go to kahoot.it
• Enter the game PIN
And the answer is...The Simple View of Reading

Source: Munger, K. A. (n. d.)
Stage 4: The Consolidated Alphabetic Stage

- Children learn the more sophisticated rules of language.
- Reliance on their background knowledge of the earlier literacy skills, in adding these new rules.

Source: Judy Baxter/flickr
When problems happen...

- “What if kids don’t get that step?”
- Breakdowns can occur
  - Consider this situation with each step in the literacy acquisition process.
- Breakdowns aren’t limited to elementary school.

Source: Shivendu Madhava/flickr
Reading Comprehension Basics

• Definition

• Depends on proficient lower-level decoding skills

• The “mental representation”, which is made up of 3 things:
  • Information from the text
  • Information related to the text
  • The inferences generated from the text

• Inferences are the assumptions that the reader makes in connecting information in the text to information that is not currently in the text.
Bridging Inferences

• Connects current information to information that was previously encountered in the text.

• “James crumbled the note into a ball and threw it in the fireplace. He watched as the ashes floated up the chimney.”

Source: a snap happy chappy/flickr
Associative Inferences

- Connects current information to knowledge that is not in the text.
- “Mary Ann looked at her calendar: it was December 22nd. She decided to skip her errands near TownSide Mall.”

Source: lillian-wong/flickr
The Connectionist Architecture

- Memories are represented by nodes and links between them.
- They vary in the strength of their connections.
- Multiple memories or concepts can be activated at the same time.
- These processes are automatic and unconscious to the reader.

Source: Gunter Creasey/flickr
The Structure-Building Model

• Proposed by Dr. Morton Gernsbacher in 1990.

• Describes comprehension in terms of 3 processes:
  • Laying a foundation
  • Mapping information onto that foundation
  • Shifting to new structures

• 2 mechanisms for the encoding of memories:
  • Enhancement
  • Suppression
Laying a foundation

• When the one encounters information for the first time.

• An iterative process.

• Prior research supports this assumption.

Source: Jesus Rodriguez/flickr
Mapping and shifting

- **Mapping** = building information onto the foundation.

- **Shifting** = Laying another foundation adjacent, and building information on top of there.

Source: Institute of Governmental Studies, UC-Berkeley
Enhancement and suppression

• Enhancement = adding incoming, related information to the foundation structure, and activating this memory node.

• Suppression = reducing activation to information in a node, because it is unrelated to the relevant topic at hand.

Source: ella/flickr
End of crash course

Source: Creative Commons/US Dept. of Education
On to the strategies!

• Strategy #1: Activating or Building Background Knowledge
• Strategy #2: Using Sensory Images
• Strategy #3: Making Predictions and Inferences
Links to Websites

Join the conversation at Today’s Meet.

The links to the sites within our presentation can be found at:
http://today.io/1N0sl
Strategy #1: Activating or Building Background Knowledge

• 3 connection types:
  • Text-to-self
  • Test-to-test
  • Test-to-world
Strategy #1: Activating or Building Background Knowledge

Text-to-Self Connections:

“Have you ever felt like the character(s) in this story? Describe what happened and how you felt.”

“Have you had a similar experience? Compare your experience to that of the character(s)?”

“How does connecting a story or information to your own life experiences help you understand it better?”

(Moreillon, 2013, p. 21)
Strategy #1: Activating or Building Background Knowledge

Text-to-Text Connections:

“Have you ever read another book or seen a movie in which the characters have feelings or experiences similar to the ones in this story? Describe how they are the same.”

“Have you ever read another book or seen a movie in which a story element (setting, plot, conflict, theme, or style) is similar to the one in this story? Describe how they are the same.”

(Moreillon, 2013, p. 23)
Text-to-World Connections:

“What do you think the author’s message or purpose was in writing this story or presenting this information?”

“Did the author suggest a message that connects with bigger ideas about the way things are in the world? What do you already know about these issues?”

“What do you think was the author’s opinion or perspective on the big issues in this text? Do you agree? Why or why not?”

(Moreillon, 2013, p. 23)
Strategy #1: Activating or Building Background Knowledge

**Ziteboard**

**Pros**
- Users do not need to login
- Can save, export, and share boards.

**Cons**
- Can’t use highlighter on free account
Strategy #1: Activating or Building Background Knowledge

**Twiddla**

**Pros**
- Don’t need to login
- Can share link with anyone
- Easy to use

**Cons**
- Users could delete others work
- May be difficult with numerous users

https://www.twiddla.com/g7fybt
Strategy #1: Activating or Building Background Knowledge

Think-Pair-Wordle-Share

Words to describe a coral reef.

- PollEv.com/megancarlton433
Strategy #1: Activating or Building Background Knowledge
Strategy #2: Using Sensory Images

• Another way to activate background knowledge

• Authors do this through literary devices

• We can do this through technology!
Strategy #2: Using Sensory Images

**Glogster**

**Pros**
- Free
- Can be used with all ages
- Students can be creative

**Cons**
- Need basic technology skills
- Students could become distracted
Strategy #2: Using Sensory Images

**ThingLink**

**Pros**
- Easy to add multimedia

**Cons**
- Student logins require an email
Strategy #3: Making Predictions and Inferences

- Background information is key!
- Predictions = “on the line”
- Inferences = “between the lines”
  - Bridging inferences
  - Associative inferences
Strategy #3: Making Predictions and Inferences

Stripgenerator

Pros
• Don’t have to register or log in

Cons
• Has some controversial items
• Can’t alter character poses
Strategy #3: Making Predictions and Inferences

ReadWriteThink

Pros
• Don’t have to register or log in
• Extremely simple - possibly good for lower elementary grades
• Can print your work

Cons
• Very limited options
Strategy #3: Making Predictions and Inferences

Make Beliefs Comix

Pros
• Don’t have to register or log in
• Multiple poses for characters
• Easy to figure out controls
• Can save, print, or email

Cons
• Limited number of objects available
• Have to click through all objects to see what is available (no categories)
Strategy #3: Making Predictions and Inferences

Storyboard That

Pros
• Don’t have to register or log in
• Numerous characters and backgrounds that are editable
• Can edit character’s pose
• Numerous cell layouts and options

Cons
• Not a lot of objects to choose from
• Can only download watermarked version
Questions?

Walker Library @ Middle Tennessee State Univ.

Rodgers Library @ University of Alabama