Module C: #7: Scaffolding

What is Scaffolding?

Instructional scaffolding is a process through which a teacher adds supports for students in order to enhance learning and aid in the mastery of tasks. The teacher does this by systematically building on students' experiences and knowledge as they are learning new skills. Just like the scaffold on a building, these supports are temporary and adjustable. As students master the assigned tasks, the supports are gradually removed. There are two critical elements to keep in mind when using instructional scaffolding:

. Modeling: Throughout the learning process, students should be able to watch their teacher model, or demonstrate, each step in the task or strategy multiple times. Such modeling and repetition allow students to understand both how to perform each step and why each step is important. Knowing *how* and why leads to students' successful performance of the task or strategy.

Practice: Students, either individually or as a group, must have the opportunity to work collaboratively with the teacher to practice the task or the strategy.

There are three types of instructional scaffolding (from the IRIS Center https://iris.peabody.vanderbilt.edu/module/sca/#content):

- **Content: content scaffolds involve the selection of content that is easy,** familiar or highly interesting in order to learn a new skill. **Task: task scaffolds** begin by specifying the steps in a task or instructional strategy. The steps in the task are modeled, while verbalizing the thought processes for the students. In other words, the teacher thinks aloud and talks through each of the steps he or she is completing. Once students are able to understand the steps in the task or instructional strategy, they practice the task independently. The teacher observes their performance and may coach students who experience problems. The teachers then gradually release responsibility for the tasks. Material: Material scaffolding involves the use of

written prompts or cues to help the **students perform a task or use a strat**egy. This may take the form of cue sh**eets or guided examples t**hat list the **steps necessary to perform a task.**

"When scaffolding, teachers typically provide high levels of initial guidance and then **system**atically reduce support as students respond with greater accuracy." Archer and Hughes, **2011**

Six Strategies for Scaffolding

1. Partnering
2. Chunking

3. Sequencing/Progress in complexity
4. Demonstrations and completed models
5. Provide hints and prompts
6. Provide aids such as cue cards and checklists

Partneri ng

Partner Reading - Content Area Textbooks Description: Before reading a section

of a content area textbook, students receive instruction on the difficult to pronounce words, the unknown vocabulary terms, and background knowledge for the passage. The teacher then guides students in reading the initial portion of the section, generally one or two pages of the selection. Students read the remainder with their partners.

Partner #1

Partner #2

Partner #1 decides to read the paragraph alone (me) or with a partner (we).

Partner #1 says "me" or "we." If partner #1 says "me," he/she reads a paragraph to partner #2. If partner #1 says "we," he/she reads with partner #2.

If partner #1 says "me," partner #2 follows along and corrects any reading errors. If partner #1 says "we," partner #2 reads WITH his/her partner.

Partner #2 asks Partner #1 the following questions based on the *Paragraph Shrinking Strategy* (Fuchs, Fuchs, Mathes, & Simmons, **1996*;* 1997*)*.

1. Name the who or what. (The main

person, animal, or thing.) **2. Tell the most important thing about the who or what. 3. Say**

the main idea in 10 words or less.

Partner # 1 answers the questions, referring back to the chapter as necessary.

Note: On the next paragraph, the partners switch roles

Partner Vocabulary Study Description: When vocabulary terms are introduced, students write the word on one side of an index card and the part of speech and meaning on the other side. The **new vocabulary cards are placed** in an envelope labeled **Study. Each student also has an envelope labeled Mastered.**

Tutor
Tutee

Tutee hands tutor his/her **two envelopes.**

Tutee answers the questions.

Tutor removes an index card from tutee's Study envelope, shows and reads the word to the tutee, and asks the following questions:

1. What is the part of speech? 2. What does the word mean? 3. Say a sentence using the word.

If the tutee answers all the **questions** correctly, the tutor puts a plus + sign on the back of the card.

If the **tutee misses any of the answers, the** tutor puts a minus - sign on the back of the **card**.

When the card has three consecutive plusses, it is placed in the **Mastered envelope.**

This process continues with additional ***words until the end of the stud***y period, generally 10 to 15 minutes.

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N*ote: The roles of tutor an**d tutee are reversed for the next pr**actice period.*

Note: Alternate content can be studied u**sing this same procedure. For example, par**tners** could study math facts, information on countries, sight vocabulary, or science **terms.

Note: A review test can be given and all items missed can be returned to the Study envelope.

Partner Repeated Reading Directions: Repeated Reading, in which studen**ts read a short passage a** number of times, is a viable procedure for increasing students' oral reading fluency. The following partner procedure is adapted from S*ix-Minute Solution (*Adams & Brown, 2007*)*.

Partner #1
Partner #2

Partners take out necessary materials: two copies of a passage at their independent or instructional reading level and two graphs. The passage has the cumulative number of words written in the left margin to facilitate determining the number of words read in one minute.

Partner #1 reads for one minute. When the teacher says, "Stop," the partner stops reading
Partner #2 follows along as his/her partner reads, underlining any word errors and circling the last word read.

Partner #2 provides feedback to his/her partner, saying the number of words read correctly in a minute and going over any word errors.

Partner #1 follows along as his/her partner reads, underlining any word errors and circling the last word read.
Partner #2 reads for one minute. When the teacher says, "Stop," the partner stops reading.

Partner #1 provides feedback to his/her partner, saying the number of words read correctly in a minute and going over any word errors.

Both partners record the number of correct oral words read on their own graphs.

Note: This procedure is usually repeated five times using the same passage. Thus, students are able to visually track reading rate growth on their graphs.

Chunking: The breaking up of information into small, digestible bites and/or grouping pieces of information. Chunking supports comprehension and retention of information.

Compare/Contrast Think Sheet

Subject:

SAME
Groups

Categories
St. Bernard
Newfoundland

Use
Rescue
Rescue

Height
Full grown mal**es same**
Full grown males same

Type of Fur
Smooth dense that pro**tects fro**m cold
Smooth dense that protects from cold

DIFFERENT
Groups

Categories
St. Bernard
Newfoundland

Weight
155 - 170 pounds
140 - 150 pounds

Place of Origin
Swiss Alps
Newfoundland

Different Clients

Climbers and skiers

People in Atlantic Ocean

Sequencing/Progressing in complexity

Example: Writing Frames Guessing what will happen next based on information or illustrations in the story.

1. Because the main character_ I predict s/he will__. (Because the main **character ran away f**rom home, I predict that he will.....)

2. At first I thought , but now I believe — 3. I think __will_because _usually 4. Since I can assume that will_(Since it's been raining all week, I can **assume** that the game will be cancelled.)

Demonstrations and Completed Models

Interleaved Solutions and Problems to Solve (Team Processing) This strategy//practice is evidenced in the What Works Clearinghouse Practice Guide for *Organizing Instruction and Study to improve Student Learning.* It is recommendation 2 and has **been determined to have moderate evidence.** Source: https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20072004.pdf#page=20

Quoted Definition (from practice guide above): "Recommendation 2: Int**erleave *w*orked ex**ample solutions and problem-solv**ing exercises**. When teaching mathematical or science problem solving, we recommen**d that teachers interleave worked exa**mple solutions and problem-solving exercises-literally alternating **between worked examples demonstrating one possi**ble solution path and problems that the **student is asked to solv**e for himself or herself-**because research has shown that this interleaving markedly enhances student l**earning."

Sample Scenarios: What could this evidence-based practice look like in **core instruction?**

- **One tea**cher uses a constructivist model to engage students in mathematical thinking,

  introducing problems **to generate math talk. After several lessons expl**oring a concept through con**crete experiences and visual representations, she uses interleaved** solutions **as she opens t**he abstract phase of her instruction.

  Another **teacher teaches the same c**oncept but introduces very explicit instructional routines **even as the s**tudents explore the initial problems. Inte**rleaved solutions are used at ea**ch phase of instruction, sometimes orally instead of written -telling stori**es as manipulatives/drawings are used to represent** problems.

What could this ev**idence-based practice look like when core instruction is differentiated?**

- **A teacher uses interleaved s**olutions during whole class instruction.

  During small group work, one group of students who needs additional scaffolding to be successful meets with **the teacher to practice w**ith inte**rleaved solutions.**

Other strategies/ways to practice are utilized with stu**dents who are on track with their master**y of the concept/skill.

Providing hints and prompts

Types of Cues for Mathematics Adapted from Hattie, Fisher, Frey Visible Learning for

Mathematics

Type of Cue
Definition
Example

Visual
Graphic hints to guide thinking or understanding
Highlighting **areas in the text where students have made errors**

Creating a graphic organizer

Asking students **to take** a second look at a graphic or visual

Verbal
Variations in speech to draw attention to something **specific, attention getters**
“This is important...." "This is tricky....Be sure **to**.....″ Changing voice volume or **speed for emphasis**

Gestural
Body movements or motions Making a pre**determined to draw attention to**
hand gesture something that has been **missed**
Placing thumbs or hands around a key idea that the **stude**nt is missing

Environmental
Using Manip**ulatives**
The use of classroom surroundings to influence **student understanding**
Moving an object or **person to change perspective**

Create a chart of your most used hint**s and cues.**

Type of Cue	**Definition**	**Example**
*V*isual	Graphic hints to guide thinking or understanding	
Verbal	Variations in s**peech to draw** attention to something specific, attention getters	
Gestural	Body movements or motions to draw attention **to someth**ing that has been **missed**	

Environmental

The use of classroom surroundings to influence student **understanding**

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Provide aids such as cue cards and checklists.

Example #1 Rubric for Descriptive Paragraph Descriptive Paragraph

Critical Attribute		**You**	**Teacher**
Organization			

The first sentence tells what is being described.

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All the other sentences tell more about what is being described

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The length is adequate.

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Sentences

Complete sentences are used.

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The sentences begin with different words.

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The sentences vary in length.

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Word choice

Descriptive words are used.

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0 1 2 3 4

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Overused words (e.g., nice, big, little) have been replaced with more precise or interesting words.

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Content

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The description paints a clear and accurate picture of what is being described.

The description is easy for the reader to understand.

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