

## Mnemonic Instruction

Mnemonic instruction is a set of strategies designed to help students improve their memory of new information. Mnemonics instruction links new information to prior knowledge through the use of visual and/or acoustic cues. These strategies have been proven effective with students at a wide range of ability levels (gifted, normally achieving, and those with mild and moderate disabilities) and at all grade levels. Mnemonics are particularly helpful in teaching students with disabilities who have difficulty recalling verbal and content-area information, as they are effective with any type of verbal content.

There are three basic types of mnemonic strategies:

- **Keyword** – A keyword is a familiar word that sounds similar to the word or idea being taught. Keywords are generally used with an illustration of some type. The teacher creates a picture or other graphic that links the old and new information in the student’s memory. For example, a mnemonic for remembering the definition of the word “carline” (meaning witch) might be a drawing of a witch driving a car.
- **Pegword** – Pegwords refer to a set of rhyming words that are used to represent numbers. For example, the pegword for “one” is “bun.” Pegwords are used to help students remember information involving numbers or other information in a particular order.
- **Letter** – Letter strategies include acronyms and acrostics (or sentence mnemonics). For example, the acronym **HOMES** can be used to help students remember the names of the Great Lakes (Huron, Ontario, etc.). Acrostics are sentences in which the first letters of the words correspond to the first letters of the information students are expected to remember. For example, “**Please Excuse My Dear Aunt Sally**” is commonly used to help math students remember the order of operations. (FOIL) (

Interventions using mnemonic instruction have produced some of the largest instructional gains recorded in the special education literature (Swanson, 1999). It should be noted, however, that the impact of mnemonic instruction is evaluated most often with criterion-referenced tests and criterion-referenced measures. Such measures tend to yield much larger effect sizes than do norm-referenced measures; however, these are the types of measures that teacher-made tests most resemble. Still, it should be noted that mnemonic instruction has not been shown reliably to affect performances on norm-referenced tests.

Mnemonic instruction is one of the most thoroughly researched interventions available for students with LD (Levin, 1993). However, several questions regarding this technique remain unanswered.

### Example of Keyword Strategy

Visual Images for the "2 Family"

- 2x2 skateboard with 2 sets of wheels
- 3x2 six pack of soda
- 4x2 spider with two sets of four legs
- 5x2 two hands with all fingers held up
- 6x2 dozen eggs in a carton
- 7x2 calendar with 2 weeks circled
- 8x2 two octopi, each with eight tentacles
- 9x2 an 18 wheel truck

(Wood & Frank, 2000)

### Letter Strategy for Problem-Solving

**S**earch the word problem

**T**ranslate the words into an equation in picture form

**A**nswer the problem

**R**eview the solution

Pegword: Example: Sticks (6) and Sticks (6) equals Dirty Sticks (36)

*Use Caution with some mnemonic ideas.*

### *Resources Tools*

<http://www.onlinemathlearning.com/math-mnemonics.html>

[http://www.educationworld.com/a\\_curr/archives/mnemonics.shtml](http://www.educationworld.com/a_curr/archives/mnemonics.shtml)

<http://forgetknot.tripod.com/math.html>

