

Friday, October 31, 2008

Feature Article

Word Walls: a No-Brainer Choice for a Higher-Order Thinking Focus

Word Walls became a fad, and once they became ubiquitous, "faded into the wood work" as far as students' attention was concerned. A "Word Wall" is a "systematically organized collection of words on large display in the classroom." Words on worksheets or at the start of a story are collections, but not large. These collections of words are called "Word Banks."

Both large formats and small-scale displays are designed to promote learning; but, word walls, if used to their potential; promote learner sharing and interaction. Alphabetical Order: A Self-Limiting Choice Word Walls are most often organized in Alphabetical Order.

But, "dictionary order language learning" fails to match the holistic language abilities of the human brain. And holistic vocabulary and the building of conceptual knowledge is a prominent feature of the human learning system.

In fact, the term "building" is almost inappropriate.

The learning process is more like "magic" than it is like "construction."

The learning process for language concepts is more like "connecting dots, lines and spaces" into a coherent picture; the entire image.

For example: Imagine that each of an artist's brush strokes were filmed and recorded as the masterpiece was painted.

Now, imagine that each of those strokes was digitized, and divided into separate "clips" of a few seconds each.

Next, those clips are scrambled in random order, and played back, as if in sequence. As they are played back, each image remains on the screen.

What would occur during such an experiment is that an image would begin to form with bits of color, lines, blocks, spaces. At first the design would be unintelligible. But soon, a pattern would emerge, and students would be able to guess what the complete image is.

At some point (depending upon the viewer's life experiences and power of visualization), the painting would begin to make sense.

The viewer would be able to guess the subject of the painting often very quickly, way before the image is complete.

The viewer will be able to guess the meaning of the picture long before the picture is completely rendered. And, if the playback were random, this figure-completion analysis might take a very small percentage of the total playback; the presentation of vague outlines might be enough of a clue for many learners to guess the subject of the painting.

This is because the human brain is genetically coded to fill in missing elements and make guesses. The Brain's Learning Capacity A corollary process to this model of picture completion is how people approach the solving of a jigsaw puzzle.

At first, many of the puzzle pieces appear to be "the same."

But, as the puzzle-solving mind pays attention to minor clues and specific shapes. Smaller and more precise discriminations become apparent. Concentration and attention strategies are used to solve the "mystery" of which pieces fit together. A picture on the puzzle box provides concrete clues. And subtle qualities inherent in each puzzle piece add to the learning required to solve the puzzle. So, How Should Word Walls be Organized? The implication and imperative for strategic organization of Word Walls: Use other Word Wall Organizations besides alphabetical order.

Consider Word Walls to be Large-Scale Graphic Organizers, and determine which Graphic Organizer models fit the specific words that your students are studying.

Large-Format Graphic Organizers Word Walls can be considered to be "Large-Format" Graphic Organizers while Word Banks can be considered to be "Mini-Organizers," or "Memory-Jogging" Graphic Organizers.

But limiting Word Walls to alphabetical listings stultifies learning. This is one of the least imaginative approaches to organizing Word Walls.

The Alphabetical Structure may be great for teaching dictionary skills, but comes up short on the "Conceptual Learning Scale."

In fact, Alphabetical Order is less conceptually relevant than; Cause and Effect

Timelines

Comparisons

Contrasts

Venn Diagrams

Ishikawa (Fishbone) Diagrams

Johari Windows

SWOT Analysis

Physical World-World of Imagination

Fact and Opinion Sorts

Past-Present-Future

Solid-Liquid-Gas

Rock-Paper-Scissors In addition, collecting words for a Word Wall that reflects (or mirrors) the concepts in sensory processes (or Multiple Intelligences) adds breadth and depth to the learning.

So, just how is this accomplished? Sensory Process Word Walls Sensory Processes are related to the five senses and include: Vision

Hearing

Touch, Sensations, Proprioceptive Stimuli

Smell

Taste Of course, vision, hearing and touch-feeling-sensation processes are most appropriate for a Word Wall.

But, a "Scratch and Sniff" model might create a novel twist if the words could be displayed at the nose level of the students. (Though we might have to consider sanitary and health-safety issues of such a system.)

The important issue is to match Word Wall organization to the preferred Learning Styles of students. Rules for Organizing the Word Wall Talking to students and listening to students' ideas about how to orient the Word Wall is more important than deciding on the "one best model" for building meaning and comprehension.

And, changing the model at least three times, to accommodate tactile-kinesthetic learning, visual learning and auditory learning might be a minimal approach. Other organizations for the same words might fall along Multiple Intelligence relationships and classification systems such as: Linguistic and Semantic Relationships

Logical and Mathematical Frameworks

Visual and Spatial Relationships

Bodily and Kinesthetic Relationships

Music and Art Relationships

Interpersonal and Intrapersonal Contrasts

Naturalistic Phenomena

Creative, Intuitive and Imaginative Relationships

Political and Religious Frameworks

Physical and World-of-Imagination Frameworks Many other relationships and frameworks are possible, but consulting students to determine which strategies that are meaningful (to them) is key to matching organizations that are relevant.

Another strategy might be to have individual students (or committees of students) present designs (and their rationale) for how the words of the Word Wall might be organized. Whether that design is accepted is less relevant than the Higher-Order Thinking that students engage in to fabricate their Word Wall designs. How Often Should the Word Wall Organization be Changed? The rule about when to change the orientation of the Word Wall is, "Change the Orientation as soon as the words begin to grow invisible to the students."

Once students know where the words are, their minds phase the words out of awareness. Sidebar This "fade out" of stimuli is the function of the Reticular Activating System (RAS) of the human brain.

This is the same system that allows a mother, sleeping in a room next to the street and subway, with airplanes flying overhead; to sleep undisturbed, but hear the cry of her infant in the next room.

This is also the reason that "sameness" limits students' attention, and the reason that students remember the first and last item and "go fuzzy" on just about everything in between.

This is also the reason that ads on a Google Search Results page are nearly invisible, and the reason that no one remembers what "elevator music" they heard once they step out the door of the elevator. Summary Word Walls present a marvelous strategy for making use of unproductive classroom wall "real estate." Commandeering walls in service of learning is a brilliant strategy.

But, an alphabetical order listing is minimally creative, and possibly the one of the least interesting methods of organizing Word Wall words.

Organizing methods that model Higher-Order Thinking Relationships and Multiple Intelligences modes of learning (Learning Styles) present ever-new and creative options, so developing a huge variety of unique Word Wall organizations is easy and productive.

Word Walls offer an excellent strategy for driving learning towards Higher-Order Thinking. Take advantage of students' thinking abilities and involve them as partners as you reorganize the classroom Word Wall at frequent intervals.

Posted by Classroom Toolkit Newsletter in Featured Article at 09:00