



BUILDING BACKGROUND KNOWLEDGE (BBK)

In Robert J. Marzano's *Building Background Knowledge for Academic Achievement*, ASCD, 2004, he begins by stating the obvious: Educators understand that students are affected in their quest for new knowledge by such factors as the knowledge and instructional skill of their teachers, the students' interest in the subject, and the complexity of the new content. However, research indicates that "...what students *already know* about the content is one of the strongest indicators of how well they will learn new information." Therefore, it is critical that educators begin to spend more time with focused instruction to build background knowledge. While different kinds of background knowledge can be important to students depending on their interest and non-academic areas of their life, it is academic background knowledge that most affects a future tied to academic achievement.

Marzano explains that acquiring background knowledge is tied to a student's ability to process and store content knowledge and to the "number and frequency" of the academic experiences the student has. A student's capacity to store knowledge, or "*fluid intelligence*," ranges from high to low. Students who have high fluid intelligence are prepared to utilize their academic experiences. Unfortunately, experiences for students with low fluid intelligence are not as successful in building background knowledge. While socio-economic status affects innate fluid intelligence, "...learned intelligence is the stronger correlate of success in school." Learned intelligence is the knowledge of content based on "facts, generalizations, and principles." What is important to note is that both innate intelligence and learned intelligence are increased through effective schooling. Effective schooling can provide the most direct approach to building academic content knowledge through a variety and depth of experiences like field trips and out-of-class experiences and/or through mentoring from the community. ***However, in the absence of these direct approaches due to budget constraints or an inadequate number of adult mentors, an indirect approach to building background knowledge can also lead to remarkable results in classroom performance.***

Marzano devotes an entire chapter to the following "Six Principles for Building an Indirect Approach":

1. Students store background knowledge in "bimodal packets" or "memory records."

These bimodal packets or memory records are based on eight "propositions" related to an "I" event, one in which the student is directly involved: (a) what "I" did, (b) how "I" felt, (c) what "I" did to something, (d) where "I" did something, (e) what "I" did for or gave to someone, (f) what happened to "me" during the event, (g) what someone else did for "me," and (h) how "I" felt at the end of the event. The specific details of the experience are "translated" into generalizations that the student then has available in his/her fluid intelligence. Further, the bimodal nature of the memory packet allows the student to connect the linguistic part of the memory [words] to nonlinguistic interpretation such as visual or mental images, sounds, smells, sensations of touch, and even emotions.

2. Helping students store their experiences in permanent memory can be enhanced.

Students need minimally four exposures to new content, no more than two days apart, but the

four exposures cannot be mere repetition. The four exposures must provide a variety of elaborations of the new content without requiring students to access another knowledge set.

3. While the target for instruction must be content-specific information, a student's background knowledge outside the target content area can be a valuable tool as the student personalizes the new information, i.e., life experience can give insight to textbook experience; thus, teachers need to help students connect real life to classroom instruction.

4. Students need increased opportunities to build academic knowledge through multiple exposures to the surface-level or basic terminology or concepts for a content area. Teachers cannot build "more" background knowledge until their students have acquired the basic information.

5. Students acquire background knowledge through vocabulary acquisition. Words are the labels students store in their memory packets, not just for single objects but rather for groups or families of objects. For example, when a child hears the word "store," that child will pull all background knowledge that connects "store" to grocery store, convenience store, department store, etc., only if the student has a memory packet that allows him or her to explore different kinds of stores.

6. Students need to be exposed to virtual experiences to enhance background knowledge. A student's ability to read is obviously important for virtual experiences. However, equally important is the use of spoken language for virtual experience. *Conversation*, then, is an important instructional tool that should be used in the required multiple exposures for building students' background information.

Marzano continues that students need to be provided sustained, uninterrupted silent reading time, allowed to identify topics of interest to them, and required to write about what they read. Through "academic" notebooks, students reveal thoughts, ideas, reservations, etc. The connection between what is read and what is written helps establish and support the acquisition of background knowledge. While "expressive journals" are important after reading literature, academic notebooks may ask students to respond to questions like "How would you use this information?" or "What do you find interesting about this information?" These notebooks may ask students to represent what they read with a graphic or a picture. Having students share their notebooks with others is another way to support the building process for background information through conversation and a reinforcement of the students' understanding or reaction.

Research supports the positive results of Direct Vocabulary Instruction (DVI), and this instruction typically involves 10 to 12 words a week from high-frequency word lists that are grade-and-content-appropriate. Virginia's Standards of Learning (SOLs) possess essential vocabulary. According to Marzano, dictionary definitions should *not* be the first exposure for students to new words. Instead, he urges teachers to follow his "Six Steps to Effective Vocabulary Instruction":

- 1. The teacher provides a description, explanation, or example of the new term.**
- 2. Students restate the explanation of the new term in their own words.**
- 3. Students create a nonlinguistic representation of the term.**
- 4. Students periodically do activities that help them add to their knowledge of vocabulary terms.**

5. Periodically students are asked to discuss the terms with one another.
6. Periodically students are involved in games that allow them to play with the terms.

Source: *Building Background Knowledge for Academic Achievement*, ASCD, 2004, by Robert J. Marzano