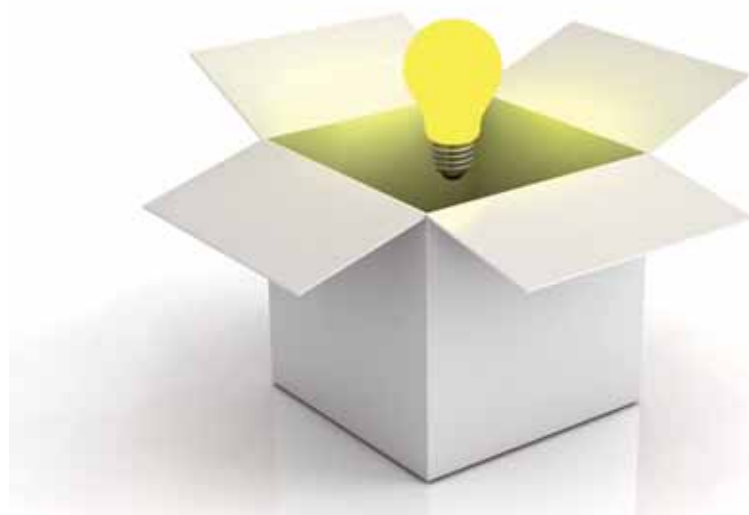


Outside The Box: How to Improve Your Team's Creative Thinking

Creative thinking is an important skill that leaders can cultivate in their team members.

By John Canfield



School district leaders have a significant opportunity to use and share the many benefits of creative thinking skills.

But first, it's important to realize that intelligence and thinking are different. Intelligence is innate capability; thinking is how you use it. Based on this perspective, thinking is an improvable skill—people can learn to be more creative thinkers, to generate new useful ideas.

Most people consider idea generation to be a natural phenomenon—something that just happens. When we consider the **physiological** source of ideas, it is a neurological phenomenon. During the past 20 years, I have searched for helpful

descriptions of this phenomenon. My favorite is by David Perkins (*Archimedes' Bathtub: The Art and Logic of Breakthrough Thinking*; Norton & Company, 2000), who offers a five-step structure that describes breakthrough thinking that generates new ideas. Breakthrough thinking requires:

1. A long search.
2. Little apparent progress.
3. A precipitating event, sometimes cued by external circumstances.
4. Cognitive snap; not much time separates the precipitating event from the solution, even if details remain to be checked.
5. Transformation of one's mental or physical world in a generative way.

Without the aid of deliberate thinking skills, working randomly, not knowing any better, we start squinting our eyes and gazing off into space looking for new ideas. It doesn't work too effectively, so it takes quite a while, frustrating us with little progress. Then something happens—bordering on a miracle, depending on the significance of the need for the idea—and the idea snaps into our head like a road sign coming around a bend. Once we have the idea, we are off to try it out.

Intelligence is innate capability; thinking is how you use it.

For example, I lost my keys. I did not want to be late to an event and was feeling under pressure. So my amygdala (emotional decision making area of my brain) kicked in, leaving me with emotional thinking and emotional choices: the cat took them, someone moved them (blame blame), I've lost them forever, etc. [long search with little apparent progress]

To practice what I preach, I admitted that I lost my keys and sat down to reduce my stress and engage my better thinking. [precipitating event] Where in my day's process might I have left my keys? I imagined my day so far, and eventually remembered I took a walk in morning, then

changed clothes to get ready for my event. *a ha!* [cognitive snap] I checked, and found that indeed, the keys were in the pocket of the pants I had worn that morning and put into the dirty clothes hamper. [transformation]

The Perkins model is useful in considering how one organizes his or her thinking in trying to deliberately come up with useful ideas. In the lost keys case, the precipitating event was choosing to think about losing the keys as a process, think it through objectively, and *presto*, the keys were found. Following headless chickens is another, but less useful method to find one's keys.

The trick is to orchestrate precipitating events on purpose. This can be done by using a variety of techniques and tools.

Why Do Precipitating Events Work?

You might consider that there are three types of thinking:

1. Instinctive: You decide “automatically”—you prick your finger and your hand moves away. You ride your bike without written, step-by-step instructions.
2. Emotional: You decide based on how it feels at the moment. “Oh one more beer is not going to hurt.” This type of thinking uses the amygdala of your brain. It seems that when we as people get under stress, we default to this level of thinking, too often leaving us to make decisions we later regret.
3. Intelligent: You decide based on a comparison of your current options against your goals. This type of thinking engages the prefrontal cortex of your brain where the “executive functioning” takes place. This is where logical thinking occurs. This is the home of the decisions we're glad we made.

Precipitating events work because they engage the prefrontal cortex.

At Hope College's Brain and Learning Institute (www.braininstitute.org), Marcia Tate (www.developingmindsinc.com) provided a helpful visual reference of the brain. Place your hands in a praying position. Your hands are about the size of your 3.5-pound brain, which is most like a combination of JELL-O and tofu. Your folded hands represent the two halves of your brain. Your thumbs represent the left and right prefrontal cortexes where you do most of your logical thinking and decision making.

Innovation is fast productive learning and implementing.

Your brain includes about 100 billion neurons. Each neuron (cell body) surrounds a nucleus in its center, has a tail called an axon that sends information, and is surrounded by up to six thousand dendrites which receive

information. Information is transferred from axons to dendrites via electrochemical impulses that jump the space from axon to dendrite called synapses. Learning grows dendrites—functional MRIs actually see the growth in the nodes on the dendrites as learning progresses.

Great questions help us grow insights, dendrites, and knowledge.

Fundamentally, innovation is fast productive learning and implementing. Fast productive learning will be most effective when it honors how the brain likes to learn. Great questions engage axons and help grow new dendrites in the brain. Great questions act as great precipitating events. I call this phenomenon Yenta, after the matchmaker from *Fiddler on the Roof*. A great question is presented to the brain, the axons become engaged, new information is exchanged electrochemically between the billions of axons and their dendrites, and Yenta shouts, “Have I got a match for you!” New ideas are formed (cognitive snaps) and new dendrites grow.

Great questions help us grow insights, dendrites, and knowledge. Great questions help us learn. When we ask and answer great questions deliberately, we choose to learn deliberately. Deliberate learning helps us improve and innovate deliberately.

These techniques and tools do not tell team members what to think, but *how*. Questions that are answered openly and honestly, with the help of data, in the company of the team members, generate dialogue and learning. This is the opposite of “group think.”

Some Homework

Your opportunity now is to turn these insights into processes that can affect how you lead. Some examples:

- Learn to collaborate with your team to build good decisions *and* good buy-in by facilitating interactive meetings that promote open discussion and decision building.
- Learn to use creative thinking tools, including problem reformulation, mindmapping, brainstorming, and word associations.
- Build an effective meeting process with your team.
- Appreciate that what generates a team's learning is great questions. The questions answered by your team will help you make progress.

Using these tools, processes, and resulting performance improvement can be contagious throughout your school system.

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