

CREATING, IMAGINING AND INNOVATING

by

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Creativity is a survival skill! The brain is always looking for something that it didn't know before, that's not being taught to it, and to find a way to figure something out: that's creative. Creative thinking has always been essential for human survival. According to Charles Limb, associate professor of Otolaryngology-at John's Hopkins University. "Our brains are hard wired to seek creative or artistic endeavors forever. We don't need it to survive, you wouldn't think, and yet the brain wants it and seeks it. The brain is an organ and some of its functions are geared toward generation of unpredictable ideas. That's just how it's meant to function."

Thinking: Divergent and Convergent

The word divergent is partly defined as "tending to be different or develop in different directions." Divergent thinking refers to the way the mind generates ideas beyond prescribed expectations and rote thinking -- what is usually referred to as "thinking outside the box," and is often associated with creativity. Convergent thinking, on the other hand, requires us to restrict ideas to those that might be correct or the best solution to a problem. Both are necessary in creative thinking. However, too often, we seek the one best solution before we have allowed ourselves to think about new and different ideas. Perhaps our emphasis on testing for right answers has reinforced this mindset.

When we are young children, our capacities for divergent thinking operate at a genius level. However, our inclination to think divergently tends to fade as we get older.

Divergent and convergent thinkers need to become alert to situational cues--to know when to use which and then to use good judgment. There are times when convergent thinking is appropriate such as following rules, taking tests, needing to be precise and drawing on factual information. There are other times when divergent thinking is necessary—in problem-based learning, when finding solutions to difficult problems, when old ways no longer work for you. Ideally, divergent and convergent thinking work in harmony with each other.

Some Strategies To Enhance Your Capacity To Think Creatively

Go ahead, take a risk!

There is no such thing as a mistake. (Have you ever *planned* to make a mistake?) When you try something and it doesn't turn out the way you hoped, it isn't a failure. Rather, it provides a rich opportunity to analyze what went wrong, to learn, and to generate alternative strategies. Once we are less afraid to make mistakes, we open up the environment for play and experiment.

Laughter—The Best Medicine For Enhancing Creativity

Albert Einstein once said, "If at first an idea doesn't seem totally absurd there's no hope for it." Innovators move toward the absurd, the "seemingly" irrelevant, in order to create new insights rather than taking an "obvious" direction.

Humor has been found to liberate creativity and provoke such higher level thinking skills as anticipation, finding novel relationships, visual imagery, and

making analogies. When you are having fun with ideas, you begin to see possibilities. You begin to take on new and interesting ways of seeing.

Brainstorming—In Groups

In one minute, think of as many uses for an object. (For example: a paperclip, a brick or a Cheerio: e.g., life preserver for ants, wheels for a mini car, packing material, counters, to keep babies quiet, etc.) Observe how your brain becomes “loose” as you allow your minds to go “off track”. Before you judge any of the ideas, observe your process. What was happening for you as you were brainstorming? Were you listening to one another and feeding off each other’s ideas? Were you laughing but not judging? Did you feel your mind opening up?

Think about what you might do with some of these ideas. Think about how this strategy might be used for your next science experiment. Before you settle on a hypothesis, might you brainstorm possibilities?

Thinking With Analogies

In what ways is a school like an airport? In what ways is soccer like highway? In what ways is gravity like a feather? As you answer these questions, you are developing your creative capacities. You are realizing that, by making something strange, you are discovering its important attributes. We often assume we know something and then, when we make it strange, we discover a deeper understanding.

Creative Thinking in your Future

The advent of technology and its tools has opened a whole new perspective on how business is conducted globally. If we are to solve the problems we are facing

today, we will need entrepreneurs—people who will invent and innovate. The modern business environment values creativity. The success of many firms is rooted in their ability to innovate. As Alan Kay of Apple Computer said, “The way to predict the future is to invent it!”