

Chapter 11 Creative Problem Solving



“If your only tool is a hammer, you’ll see every problem as a nail.”

— Abraham Maslow

The Ageless Wisdom of Creativity

Invention, innovation, imagination, incubation, and inspiration. These are but a few of the many words that come to mind when one begins to articulate the revered concept known as creativity and the creative process in which the seeds of creativity take root. One cannot help but stand in awe of such creations as da Vinci’s *Mona Lisa*, Beethoven’s *5th Symphony*, or Peter Jackson’s film adaptation of J. R. R. Tolkien’s *The Lord of the Rings*. Less venerated, but no less important, are inventions such as the weaving loom, automobile, jet airplane, and laptop computer. It has been said that it is the creative mind of the human species that separates us from all other species.

Necessity, it is said, is the mother of invention. Although necessity is not the same thing as stress, pushed to the limits, it can elicit the stress response very quickly. It's no secret that many creative moments come under duress, to make the unworkable work and the immovable move. Stress can prove to be a force of inspiration, which, in turn, results in some rather amazing inventions and works of art. If necessity is the mother of invention, then play certainly commands a paternal role in this unique process. Many of the world's finest creations, inventions, and innovations didn't occur in stressful episodes but rather in relaxed moments of tinkering (playing) in the garage.

Surf the Internet or social media and you will quickly realize that creativity abounds for entertainment purposes, not to mention countless humorous interludes. Today practically anyone can produce a song, movie, or ebook and mass market it to the world with a few keystrokes. But the skills for creative problem solving involve more than initiating a Kickstarter campaign or designing the next cool app.

By most accounts, human beings are the only species on the planet earth that employ the dynamics of creativity. Architectural structures, songs, drawings, and mechanical devices are just some of the many things that humans, for better or worse, leave as a legacy to the rest of the world. Ironically, in a country known for its "American ingenuity," creativity is not cultivated as a human resource skill in the education system, whereas critical thinking is encouraged and highly praised. Interestingly, today American business leaders are in search of creative talent from other parts of the world. Given the rapid rate of change today in our personal lives, as well as the changes (both large and small) in the global village, it's no secret that creative problem solving will become one of the most sought after coping skills in all levels of human endeavors. For this reason, a review of these skills is essential in the paradigm of holistic stress management.

The Creative Process Revealed

The **creative process** has been inspected, dissected, and analyzed in the hope of revealing the secrets to such inventions as the light bulb, the telephone, and the Internet. Those who have cut open the proverbial goose to see how the golden egg is formed have all come to the same conclusion: Creativity is a multifaceted process combining imagination with organization, intuition with collaboration, and more recently, the right brain's functions with the left brain's skills. In his effort to understand the creative process, scholar and author Roger von Oech identifies, in a creative way, four distinct aspects that necessitate a more thorough understanding of the often illusive, yet always in demand creative process. Von Oech describes four aspects or roles of the creative process: the explorer, the artist, the judge, and the warrior. Let's take a closer look at these components.

The explorer: The first role of the creative process begins with a search for new ideas. To find ideas you have to leave the known and venture into the unknown. In other words, you have to venture off the beaten path. The **explorer** begins to look for ideas anywhere and everywhere. The farther you go off the beaten path, the more likely you will come up with one or more original ideas. In new environments, our sensory receptors are more open to new stimuli. Where do people go to explore new ideas? Art museums, hardware stores, greenhouses, travel magazines, and late night talk radio. Thomas Alva Edison was a big advocate of the exploration process: "Make a practice to keep on the lookout for novel and interesting ideas that others have used successfully. Your idea only has to be original in the adaptation to the problem you are working on." Nobel Prize Laureate Linus Pauling put it this way, "The best way to get a good idea is to get a lot of ideas." New ideas become raw materials for the next stage of the creative process. How does one sharpen his or her exploration skills? Creative experts suggest the following: Be curious, leave your own turf, break out of your routine, and don't overlook the obvious.

The artist: Once the explorer returns home with lots of raw materials to use, the **artist** grabs the relay baton and continues the creative process by incubating, manipulating, adapting, parodying, and connecting ideas until one idea surfaces as the best idea. In the role of the artist, you play with ideas. In the words of Pablo Picasso, "Every act of creation is first an act of destruction." An artist sheds all inhibitions to get his or her hands dirty by turning ideas upside down. The artist asks questions like, What if ... ? After a given amount of time, the artist comes to a natural conclusion that one idea may stand out above the rest, yet presents all ideas to be judged.

The judge: The **judge** plays a very crucial, yet delicate role in the creative process. One must be flexible enough to validate the artistic abilities, but critical enough to make the best selection possible. As one shifts from the artist to the judge, one shifts from the right (imaginative) brain to the left (analytical) brain. The biggest hazard in the creative process is a reshuffling of these roles so that the judge begins the process. In every attempt when the mental

processing begins with judgment, creativity is stifled. The role of the judge is to select the best idea of all the ideas gathered, then pass this idea to the warrior so the idea can take flight.

The warrior: A good idea that has no backing will die in the water. The role of the **warrior** is to champion the cause of the idea and make it a reality. To be a good warrior, you have to believe in yourself. Courage is a must, but so is tough skin because not everyone is going to be as crazy about your idea as you are. The warrior must overcome fear of failure, fear of rejection, and fear of the unknown. The warrior must be brave. Should he or she realize that the idea turned out to be less than ideal, then the creativity team reconvenes either to overhaul the first idea or scrap it entirely and select a new one.

Within you resides all four members of the creativity team—explorer, artist, judge, and warrior. [Exercise 11.1](#), “The Roles of Creativity,” highlights these roles as four aspects of your creative process by encouraging you to wear each of these hats. [Exercise 11.2](#) entices you to shift from a left-brain analytical mind-set to a right-brain focus and get the creative juices going in preparation for your next creative endeavor.

Jonah Lehrer, author of the best-selling book *Imagine* and a contributing editor for *Wired* magazine, describes the creative process as anything but a straight line. In his examination of creativity, from various regions of the brain involved with imagination to companies like 3M, Apple, Google, and Pixar who foster a sense of creativity, Lehrer cites creativity as one of the most important inner resources of the 21st century, particularly with several problems (from the personal to the global) on our collective doorstep.

Unlocking Your Creative Powers

Everybody is creative, but not everyone chooses to use this inherent skill. When people are stuck in fear and anxiety, 10 times out of 10—not 9 or 8 times, but 10 times out of 10—fear becomes the motivating force, immobilizing people and inhibiting their creative skills. In the effort to understand the creative process, leaders in this field have come to understand that they must also address roadblocks that obstruct the creative process. The following, as outlined in Roger von Oech’s best-selling book, *A Whack on the Side of the Head*, are a few of the more common **creative blocks** that must be dismantled before these valuable coping skills can allow us to reach our highest potential:

1. *Me? Creative?* The biggest block to the creative process is the belief that you are not creative. The roots of this belief typically sprout early in childhood when creative efforts are met by others with scorn rather than enthusiasm, and it sends a message of inadequacy. Rather than looking inept, most people simply forgo their creative skills and let this muscle atrophy.

The truth is that everyone is creative, but creativity, like any other skill, takes practice. If you think you are not creative, you will fulfill your limitations. Instead, learn to see yourself as the creative genius you really are. Start with small projects such as cooking a fine meal or writing a poem. Then work your way up to bigger projects.

2. *No time for play.* Remember that play is a critical factor in the creative process. Kids love to play, but adults soon forget the freedom of play as more and more responsibilities invade their lives. Play is critical in the role of the artist, and play is always more fun when it includes others. So, consider inviting some friends to join you in playtime. Playtime can include anything from a mental health day of downhill skiing to wandering the aisles of Home Depot. For play to be effective, keep ego at home when you venture out!
3. *Perfection is stifling.* Nobody likes to make a mistake, and surely not in front of an audience. Rest assured that embarrassment and humiliation are forms of fear-based stress. Ironically, the truth is that the creative process involves mistakes. In the words of Woody Allen, “If you are not failing every now and then, it’s a sign that you are not trying anything very innovative.” And in the words of IBM founder Thomas J. Watson, “The way to success is to double your rate of failure.” Edison failed with over 1,000 types of filaments for the light bulb before he found one that worked. We might still be in the dark if he gave up on number 900. Follow Edison’s advice: Learn to focus on the positive, not the negative, and then keep going.
4. *But there’s only one way, right?* The ego loves to be right and will do all it can to prove it is right. Ironically, in the creative process, there are many right answers. On occasion, there may be a best answer, but there are always many right answers. Looking for the right answer means stepping out of the box, exploring the unknown, and finding many answers from which to choose. In the words of French philosopher Emile Chartier, “Nothing is more

dangerous than an idea when it is the only one you have.” Learn to become comfortable with many right answers and many possible (viable) solutions to a problem.

5. *Fear of the unknown.* Creativity is certainly stifled in an age of specialization where professionals are kings of minutiae and the jack of all trades is nowhere in sight. Once again, in an effort not to look stupid, fear overrides the mental thought processes by claiming either ignorance or territorial turf issues and refuses to get involved. Learn to make every area your area by embracing the wonder of all aspects of life.

Are your creative efforts blocked by the fear that whatever you do might not be good enough? [Exercise 11.3](#), “My Creativity Project,” is an exercise to break through these blocks by delving into the creative process and coming out a victor. Enjoy!

There is no denying that Apple co-founder Steve Jobs was a creative genius. His biographer, Walter Isaacson, described Steve Jobs this way: “Some leaders push innovations by being good at the big picture. Others do so by mastering details. Jobs did both, relentlessly.” In the words of Steve Jobs, “You always have to keep pushing [outside the box] to be innovative.” In his now famous *Think Different* commercial, the narrative ends with these words: “The people who are crazy enough to think they can change the world are the ones who do. Think Different.”

From Creativity to Creative Problem Solving

The creative process is not a linear process with a direct route from problem to solution. If it were that easy, everyone would claim to be creative! Although the creative process isn't hard, it's not direct either. To use von Oech's metaphor of the four roles of creativity, most likely you will be switching hats often, from explorer to warrior, till it becomes obvious the problem is solved with complete satisfaction (**Fig. 11.1**). The following is a tried-and-true method of **creative problem solving**. Once you have read through this process, [Exercise 11.4](#) provides this same template to be used for any current problems you are facing that demand a creative solution.

1. *Describing the problem:* Take time to identify and describe the problem. Sometimes the answer can be found in how the problem is identified. Consider being playful in this first step, such as describing the problem as a child might see it, or as an alien might view it. Using the method of dividing and conquering, try breaking the problem down into smaller pieces.
2. *Generating ideas:* What to cook for dinner tonight? Come up with five selections. Where to take your next vacation? Come up with five possible ideas. How to pay for your college education? Come up with five viable solutions. Generating ideas is the fun stage of the creative problem-solving process. To do a good job generating ideas, learn to get comfortable stepping out of your comfort zone (the box) and venture out to search for great ideas.
3. *Selecting and refining the idea:* Once you have several ideas, you can begin to narrow the selection down to the best idea. To pick the best idea, consider playing the game What If. Try to imagine the idea already implemented and see how it works. Visualize it. Think the idea through to its desired result. Ask yourself what the pros and cons are. Although you won't know till you try, selection involves both intuition and imagination as well as good judgment skills.

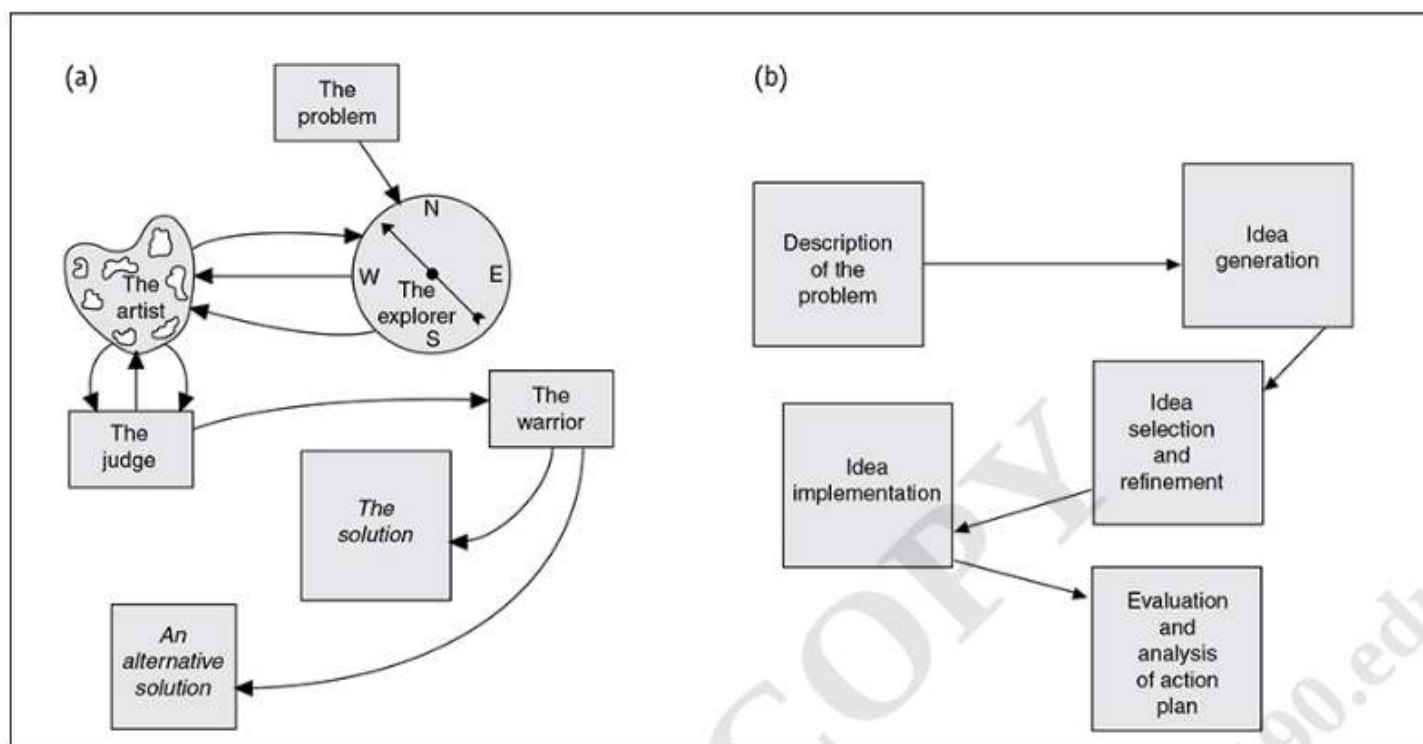


FIGURE 11.1 (a) Creative problem solving is rarely a linear process. (b) The map of creative problem solving.

4. *Implementing the idea:* Putting an idea into play can take minutes or weeks, depending on the problem begging to be solved. The implementation of every idea requires some risk as well as some faith that it will work. Implementation means taking the first step back into the unknown. It may mean making a phone call or getting in your car and driving somewhere. It may mean sitting down and talking with someone, and most likely it will mean participating in a collaborative effort to pull it off. Fear inhibits this stage of the creative process, but don't let it! Remember, face your fear and it will disappear!
5. *Evaluating and analyzing the idea:* When ideas work, and in this case, when the crisis is over, people tend to forget the magic that made it happen. But success begs to be highlighted by taking a good look so that the lessons can be learned should they be needed again. It's a good habit to study successes as well as unmet expectations; valuable lessons can be learned from both ends of the creative process.

How to Incorporate Creative Problem Solving into Your Life Routine

The best way to incorporate creative problem-solving skills in your life routine is to follow the template in [Exercise 11.4](#) for any and all problems. Reading books on creativity can help (and is strongly encouraged), but reading about doing something and actually doing it are two different things. Be on the lookout for how others solve their problems. Adaptation of ideas to your unique situation can prove to be very empowering!

The next best way to enhance your creative skills is to practice them, even in areas that are totally unrelated to problems begging for resolution. There is a wonderful transfer effect from the creative process with music, photography, cooking, or writing to the problems and dilemmas that face us each day. Engaging in small acts