Creative Thinking

by Sophia

WHAT'S COVERED

In this tutorial, you will be able to define creative thinking, identify the value that creative thinking has in education, discuss the role of limitations (such as rules) in creative thinking, and apply creative thinking skills to problem solving scenarios. Our discussion breaks down as follows:

1. Creative Thinking

Think about a time when you visited a museum or a sculpture garden, or you attended an orchestral performance or a concert by a favorite performer. Did you marvel at the skill, the artistry, and the innovation? Did you wonder how rich inside you would feel if you had those abilities?

If you have ever had thoughts along these lines, you must know you are not alone! It's hard for anyone to behold a masterpiece and not imagine "trying it on" as your own.

But as you imagined yourself in the shoes of an acknowledged artist, did you acknowledge the seeds of creativity within yourself?

You might be surprised to know that everyone has creative abilities—everyone including those who fully express creative abilities as well as those who express them seemingly little or not at all. All humans are innately creative, especially if creativity is understood as a problem solving skill.

Stated another way, creativity is inspired when there is a problem to solve. For example, when a sculptor creates an amazing sculpture, it is sculpted as an act of problem-solving—that is, the sculptor is calculating which artistic style to use to create the likeness of an object they want to represent, or perhaps they are deciding on which tools to use to suit their style, or they may be assessing how best to satisfy a customer's request, or how to derive income from the art, or all of these and more! In solving these problems, the sculptor is creative, but the problem or problems define the creativity perhaps more so than the art.

If creativity is an act of problem-solving, then it's easy to understand that creativity can be taught as well as learned, because problem-solving is something we are called upon to do each and every day in some way or another—from performing mundane chores to executing sophisticated challenges—and we can always improve upon the skills. Improving creative thinking skills is the essence of this topic on creative thinking.

- Creative thinking (a companion to critical thinking) is an invaluable skill for college students. It is important because it helps you look at problems and situations from a fresh perspective. Creative thinking is a way to develop novel or unorthodox solutions that do not depend wholly on past or current solutions. It is a

way of employing strategies to clear your mind so that your thoughts and ideas can transcend what appear to be the limitations of a problem. Creative thinking is a way of moving beyond barriers.

- As a creative thinker, you are curious, optimistic, and imaginative. You see problems as interesting opportunities, and you challenge assumptions and suspend judgment. You don't give up easily. You work hard.

Is this you? Even if you may not yet see yourself as an advanced creative thinker, you can learn solid skills and techniques to help you tap into creativity and become a more innovative problem solver.

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2. Creative Thinking In Education

Now that you have taken the creative problem-solving self-assessment test, do you have a better sense of which creative thinking skills and attitudes you have, and which ones you might want to improve upon?

College is a great place for enhancing creative thinking skills. Here are some college activities that would stimulate creative thinking. Are any familiar to you?

- Design sample exam questions to test your knowledge as you study for a final.
- Devise a social media strategy for a club on campus.
- Propose an education plan for a major you are designing for yourself.
- Prepare a speech that you will give in a debate in your course.
- Develop a pattern for a costume in a theatrical production.
- Arrange audience seats in your classroom to maximize attention during your presentation.
- Arrange a holiday display in your dormitory or apartment building to be eye-catching and enjoyable.
- Participate in a brainstorming session with your fellow musicians on how you will collaborate to write a musical composition.
- Draft a script for a video production that will be shown to several college administrators.
- Compose a set of requests and recommendations for a campus office to improve its customer service.
- Develop a marketing pitch for a mock business you are developing.
- Develop a comprehensive energy-reduction plan for your co-housing arrangement.

2a. How to Stimulate Creative Thinking

Here are six steps to stimulate your creative thinking.

1. Sleep on it. Over the years, researchers have found that the REM sleep cycle boosts our creativity and problem-solving abilities, providing us with innovative ideas or the answers to vexing dilemmas when we awaken. Keep a pen and paper by the bed so you can write down your nocturnal insights if they wake you up.
2. Go for a run or hit the gym. Studies indicate that exercise stimulates creative thinking, and the brainpower boost lasts for a few hours.
3. Allow your mind to wander a few times every day. Far from being a waste of time, daydreaming has

been found to be an essential part of coming up with new ideas. If you're stuck on a problem or creatively blocked, think about something else for a while.

4. Keep learning. Studying something far removed from your area of expertise is especially effective in helping you think in new ways.
5. Put yourself in nerve-racking situations once in a while to fire up your brain. Fear and frustration trigger innovative thinking.
6. Keep a notebook with you so you always have a way to record fleeting thoughts. They're sometimes the best ideas of all.

2b. A Brainstorm of Tips for Creative Thinking

"The best way to have a good idea is to have lots of ideas."

Linus Pauling, double Nobel Laureate, chemist, biochemist, and peace campaigner

Here are additional tips to help you deeply engage creative thinking and originality in your college assignments and endeavors:

Engagement	Tips
Sensing	• Use all your senses – see, taste, smell, touch, hear, think, speak. • Be observant of people, nature, and events around you.
Thinking	• Engage thinking on the right side of your brain (intuition, open-mindedness, visual perception, rhythm...). • Change your interpretation of an event, situation, behavior, person or object. • Allow ideas to incubate. • Be open to insight as ideas pop into your mind.
Imagining	• Brainstorm by generating ideas with a group of people. • Ask "What would happen if..." • Ask "In how many different ways..." • Develop ideas and expand their possibilities. • Envision the future.
Speaking and Writing	• Use your words and your "voice" in conveying your original ideas. • Avoid using cliches or overly-familiar responses to questions or problems. • Explain how your ideas move beyond the status quo and contribute to a discussion. • Take notes.
Drawing	• Use mind-mapping to convey ideas; start with a key concept in the center of your page, and radiate out in all directions, using lines to connect related ideas. • Create pictures or drawings of situations ("rich pictures") to show a situation in a different way.

Learning	• Find ways to demonstrate your personal investment in projects. • Gather knowledge and conduct research. • Have more fun learning!
Moving	• Do physical activities to engage the creative areas of your brain and think differently. *Resting* • Take breaks.

3. Creative Thinking Fiction and Facts

As you continue to develop your creative thinking skills, be alert to perceptions about creative thinking that could slow down progress. Remember that creative thinking and problem-solving are ways to transcend the limitations of a problem and to see beyond barriers. It is a way to think "outside of the box."

Fiction	Facts
Every problem has only one solution (or one right answer).	The goal of problem-solving is to solve the problem, and most problems can be solved in any number of ways. If you discover a solution that works, it is a good solution. There may be other solutions thought of by other people, but that doesn't make your solution wrong or insignificant. What is the solution to putting words on paper? Fountain pen, ballpoint pen, pencil, marker, typewriter, printer, printing press, word processing…?
The best answer or solution or method has already been found.	Look at the history of any solution and you'll see that improvements, new solutions, and new right answers are always being found. What is the solution to human transportation? The ox or horse, the cart, the wagon, the train, the car, the airplane, the jet, the space shuttle? What is the best and last?
Creative answers are complex technologically.	Only a few problems require complex technological solutions. Most problems you'll meet require only a thoughtful solution requiring personal action and perhaps a few simple tools. Even many problems that seem to require a technological solution can be addressed in other ways.
Ideas either come or they don't. Nothing will help—certainly not structure.	There are many successful techniques for generating ideas. One important technique is to include structure. Create guidelines, limiting parameters, and concrete goals for yourself that stimulate and shape your creativity. For example, if you want to write a story about a person who gained insight through experience, you can stoke your creativity by limiting or narrowing your theme to "a young girl in Cambodia escaped the Khmer Rouge to find a new life as a nurse in France. Apply this specificity and structure to any creative endeavor.

4. Problem Solving with Creative Thinking

Creative problem solving is a type of problem-solving. It involves searching for new and novel solutions to

problems. Unlike critical thinking, which scrutinizes assumptions, reasoning, creative thinking is about generating alternative ideas, practices, and solutions that are unique and effective. It's about facing sometimes muddy and unclear problems, and seeing how "things" can be done differently—how new solutions can be imagined.

SUMMARY

In this tutorial, you learned about the relationship between creative thinking and problem-solving. There were a few myths dispelled about creative thinking and you gained some tips to stimulate your own creative thinking.

Good luck!