

Creative Thinking Definition, Skills, and Ways to Develop Skills

What is creative thinking, and why is it important in the workplace? Most people associate creativity with artistic tasks such as writing a novel, painting a picture, or composing music. While these are all creative endeavours, not all creative thinkers are artists. Many jobs require creative thinking, including positions in the worlds of business and science.

Creativity simply means being able to come up with something new. Therefore, creative thinking is the ability to consider something – a conflict between employees, a data set, a group project – in a new way. Employers in all industries want employees who can think creatively and bring new perspectives to the workplace.

It's important to share your creative thinking skills with prospective employers. Be sure to highlight in your job applications your ability to think creatively. To do this, you first need to recognize your own creativity.

What is Creative Thinking?

Creative thinking means looking at something in a new way. It is the very definition of “thinking outside the box.” Often, creativity in this sense involves what is called lateral thinking, or the ability to perceive patterns that are not obvious. The fictional detective Sherlock Holmes uses lateral thinking in one famous story when he realizes that a dog not barking is an important clue in a murder case.

Creative people have the ability to devise new ways to carry out tasks, solve problems, and meet challenges. They bring a fresh, and sometimes unorthodox, perspective to their work. This way of thinking can help departments and organizations move in more productive directions. For these reasons, they are extremely valuable to a company.

You can develop creative thinking skills by solving riddles, being aware of (and letting go of) your assumptions, and through play. Play connotes anything unstructured and relaxing, such as walking or daydreaming.

If there is someone in your industry who is known for being creative, you might try to connect with that person and ask for an informational interview, or ask to job shadow him or her for a day. Watching someone work in creative ways can help you learn to be more creative yourself.

Top Creative Thinking Skills



Analysis

Before thinking creatively about something, you first have to be able to understand it. This requires the ability to examine things carefully to understand what they mean. Whether you are looking at a text, a data set, a lesson plan, or an equation, you need to be able to analyse it first.

Open-Mindedness

Creativity involves thinking of things in a novel way within the context in a question. You have to set aside any assumptions or biases you may have, and look at things in a completely new way. By coming to a problem with an open mind, you allow yourself the chance to think creatively.

Problem Solving

Employers don't simply want to hire creative people because they are impressive. They want creative employees who will help them to solve work-related issues.

Therefore, when applying for jobs, highlight your ability not only to think creatively, but to use your creativity to solve important problems.

Organization

This might seem counterintuitive: aren't creative people known for being somewhat disorganized? Actually, organization is an important part of creativity. While you might need to get a bit messy when trying out a new idea, you then need to organize your ideas so that other people will be able to understand and follow through with your vision. Being able to structure a plan of action with clear goals and deadlines is vital.

Communication

People will only appreciate your creative idea or solution if you can communicate it effectively to the people you work with (or to your clients or vendors). Therefore, you need to have strong written and oral communication skills.

You also need to be able to understand a situation fully before thinking creatively about it. Therefore, you also need to be a good listener. By asking the right questions and understanding the problem, you can come up with a unique solution.

Examples of Creative Thinking

Opportunities for creative thought in the workplace vary from the obvious artistic position to the highly technical one. Generally, anything that involves an "Aha" moment is considered creative. Here are some examples of how to display creative thinking in different jobs.

Artistic Creativity

You don't have to be an artist for your work to have an artistic element. Perhaps you arrange retail displays for maximum impact or shape the path of an enticing hiking trail. Other artistically creative tasks might include designing logos, writing advertising copy, creating the packaging for a product, or drafting a phone script for a fundraising drive.

- Composing a new fundraising script for volunteers
- Composing dialogue for a television or radio commercial
- Creating an exam to test student knowledge
- Creating packaging for a product
- Designing a logo
- Devising a lesson plan that will engage students
- Proposing a new look for a clothing line
- Writing compelling copy for a print or online advertisement

Creative Problem-Solving

Creative problem-solving stands out as innovative. A creative problem solver will find new solutions rather than simply identifying and implementing the norm. You might brainstorm new ways to cut energy use, find new ways to cut costs during a budget crisis, or develop a unique litigation strategy to defend a client.

These all entail creative thinking on your part.

- Brainstorming at a staff meeting to set a strategy for the next year
- Brainstorming ways to cut energy use
- Coming up with new procedures to improve quality
- Devising a more efficient way to process travel reimbursements
- Identifying ways to cut costs during a budget crisis
- Increasing staff productivity by devising performance incentives
- Restructuring a filing system to facilitate easier retrieval of information
- Suggesting new ways of communication to alleviate marital conflict
- Suggesting a way to improve customer service

Creativity in STEM

Some people think of science and engineering as the exact opposite of art and creativity. However, the converse is true. The field of STEM (science, technology, engineering, and math) is highly creative. For example, designing a more efficient assembly line robot, writing an innovative new computer program, or developing a testable hypothesis, are all highly creative acts.

In fact, the history of science and technology is filled with projects that did not work, not because of errors in technique or methodology, but because people remained stuck in their assumptions and old habits. The STEM field needs radical creativity in order to flourish and grow.

- Constructing a research model to test a hypothesis
- Devising a computer program to automate a billing process
- Devising a social media platform for a cell phone
- Identifying new ways to increase the number of blood donors
- Proposing behavioural changes for a patient who is overweight
- Redesigning machinery on an assembly line to enhance productivity

Ways to Boost Your Creative Thinking

Many people think you're either a creative person or you're not. While I agree that some people may be slightly more predisposed to thinking creatively than others, I think creativity is a muscle that can be exercised and improved upon. Here are six ways to stimulate creative thinking.

1. Consume content that's way outside your comfort zone.

We all love reading about stuff in our industry, but typically this doesn't boost creativity. If you're lucky, it might help with motivation or inspiration. If you want to get your creative juices flowing, start consuming content you wouldn't normally consume. Read blogs outside of your industry. Read books outside of your normal genre of choice. Heck grab lunch with a complete stranger (just make sure they're not a bad stranger).

2. Write a 500 words article with no topic whatsoever.

This is a fun exercise I use when I can't seem to get my thoughts focused or come up with interesting ideas. I'll open a blank document and just start typing. No headline, no topic, no editing, and most importantly no self-critiquing. I just let my fingers start typing and let my brain decide what words get written next. Usually I end up with some pretty weird and crazy stuff I'd never share, but I always feel a boost of creative energy afterwards.

3. Go see a movie in a movie theatre.

Movies on the big screen are one of the last few places you can enjoy a complete sensory-captive experience. The giant bright screen. The sound-rumbling surround sound. The smell and taste of freshly popped popcorn. The somewhat uncomfortable seat with plastic armrests that don't move. Whenever I leave a movie theatre, my mind is always spinning with thoughts and ideas.

4. Take a phone call with someone you don't know.

Hearing someone's story that's completely new to you can be an eye-opening and mind-expanding experience. Maybe you'll learn something from them? Maybe they'll give you a new perspective you've never heard about your stuff? Maybe they'll drop knowledge bombs on you?

5. Eat differently.

There are studies upon studies that discuss how our diet affects the way we think. Want to start thinking differently? Start giving your body different (and healthier) fuel. You'd be shocked how much more creatively you can think and act when you eat a healthier diet.

6. Do the "No Bad Ideas Brainstorming" exercise.

Get at least one other person to join you for a 45-60 minutes brainstorming session. No technology and no criticism whatsoever. Bring a topic or idea you want to brainstorm to the table, and just start riffing on it back and forth. Write down all your ideas (on actual paper) and don't critique a single idea. It's important to do this in person and to make absolutely sure you don't have any negative energy or feedback throughout the process. You may end up with 100 horrible ideas, but I bet you'll have one or two good ones. Plus, you'll get better at this the more you do it.

You don't have to be a creative thinker to be able to think outside the box, you just need to do more stuff that stimulates creative thinking. Even the most creative people need help getting inspired.

Critical Thinking Definition, Skills, Barriers and Ways to Develop Skills

What Is Critical Thinking?

“Critical thinking is the intellectually disciplined process of actively and skilfully conceptualizing, applying, analysing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communicating, as a guide to belief and action.”

- The Foundation for Critical Thinking

Characteristics of Critical Thinking

Albert Einstein, Henry Ford, Marie Curie, Sigmund Freud, these are just a few of the critical thinkers who have shaped our modern lives. Critical thinkers think clearly and rationally, and make logical connections between ideas -- they are crucial to exploring and understanding the world we live in.

Critical thinking is more than just the accumulation of facts and knowledge; it's a way of approaching whatever is presently occupying your mind so that you come to the best possible conclusion. Critical thinkers are focused on constantly upgrading their knowledge, and they engage in independent self-learning. They make some of the best leaders, because they can reach new planes of self-improvement and self-actualization.

If you're hoping to reach your full potential and make your mark on the world, cultivate the following 16 characteristics of critical thinkers.

1. Observation

Observation is one of the earliest critical thinking skills we learn as children - it's our ability to perceive and understand the world around us. Careful observation includes our ability to document details, and to collect data through our senses. Our observations will eventually lead to insight and a deeper understanding of the world.

2. Curiosity

Curiosity is a core trait of many successful leaders. Being inherently inquisitive and interested in the world and people around you is a hallmark of leaders who are

critical thinkers. Instead of taking everything at face value, a curious person will wonder why something is the way it is.

As we get older, it's easier to put aside what may seem like childish curiosity. Curiosity forces you to keep an open mind and propels you to gain deeper knowledge - all of which are also fundamental to be a lifelong learner.

3. Objectivity

Good critical thinkers are able to stay as objective as possible when looking at information or a situation. They focus on facts, and on the scientific evaluation of the information at hand. Objective thinkers seek to keep their emotions (and those of others) from affecting their judgment.

However, it's impossible for people to remain completely objective, because we're all shaped by our points of view, our life experiences and our perspectives. Being aware of our biases is the first step to being objective and looking at an issue dispassionately. Once you're able to remove yourself from the situation, you can more thoroughly analyse it.

4. Introspection

This is the art of being aware of your thinking - or, to put it another way, thinking about how you think about things. Critical thinkers need introspection so they're aware of their own degree of alertness and attentiveness, as well as their biases. This is your ability to examine your inner-most thoughts, feelings and sensations. Introspection is closely related to self-reflection, which gives your insight into your emotional and mental state.

5. Analytical thinking

The best analytical thinkers are also critical thinkers, and vice versa. The ability to analyse information is key when looking at any almost anything, whether it is a contract, report, business model or even a relationship.

Analysing information means to break information down to its component parts and evaluate how well those parts function together and separately. Analysis relies on observation; on gathering and evaluating evidence so you can come to a meaningful conclusion. Analytical thinking begins with objectivity.

6. Identifying biases

Critical thinkers challenge themselves to identify the evidence that forms their beliefs and assess whether or not those sources are credible. Doing this helps you understand your own biases and question your preconceived notions.

This is an important step in becoming aware of how biases intrude on your thinking and recognizing when information may be skewed. When looking at information, ask yourself who the information benefits. Does the source of this information have an agenda? Does the source overlook or leave out information that doesn't support its claims or beliefs?

7. Determining relevance

One of the most difficult parts of thinking critically is figuring out what information is the most relevant, meaningful and important for your consideration. In many scenarios, you'll be presented with information that may seem valuable, but it may turn out to be only a minor data point to consider.

Consider if a source of information is logically relevant to the issue being discussed. Is it truly useful and unbiased, or is it merely distracting from a more pertinent point?

8. Inference

Information doesn't always come with a summary that spells out exactly what it means. Critical thinkers need to assess the information and draw conclusions based on raw data. Inference is the ability to extrapolate meaning from data and discover potential outcomes when assessing a scenario.

It is also important to understand the difference between inference and assumptions. For example, if you see data that someone weighs 260 pounds, you might assume they are overweight or unhealthy. However, other data points like height and body composition may alter that conclusion.

9. Compassion and empathy.

Having compassion and empathy may seem like a negative for critical thinkers. After all, being sentimental and emotional can skew our perception of a situation. But the point of having compassion is to have concern for others and to value the welfare of other people.

Without compassion, we would view all information and situations from the viewpoint of cold, heartless scientific facts and data. It would be easy to allow our cynicism to

become toxic, and to be suspicious of everything we look at. But to be a good critical thinker, we must always take into account the human element. Not everything we do is about detached data and information - it's also about people.

10. Humility

Humility is the willingness to acknowledge one's shortcomings and see one's positive attributes in an accurate way. When you have humility, you are aware of your flaws, but also your strengths, and this is an important element in critical thinking and being willing to stretch and open your mind.

When you have intellectual humility, you're open to other people's viewpoints, you recognize when you're wrong and you're willing to challenge your own beliefs when necessary.

11. Willing to challenge the status quo.

Critical thinking means questioning long-established business practices and refusing to adhere to traditional methods simply because that's the way it's always been done. Critical thinkers are looking for smart, thoughtful answers and methods that take into account all the current and relevant information and practices available. Their willingness to challenge the status quo may seem controversial, but it's an essential part of the creative and innovative mind of a critical thinker.

12. Open-mindedness

Being able to step back from a situation and not become embroiled helps critical thinkers see the broader view. Critical thinkers avoid launching into a frenzied argument or taking sides -- they want to hear all perspectives. Critical thinkers don't jump to conclusions. They approach a question or situation with an open mind and embrace other opinions and views.

13. Aware of common thinking errors.

Critical thinkers don't allow their logic and reasoning to become clouded by illusions and misconceptions. They are aware of common logical fallacies, which are errors in reasoning that often creep into arguments and debates. Some common errors in thinking include:

- Circular reasoning, in which the premise of an argument or a conclusion is used as support for the argument itself.
- Cognitive shortcut bias, in which you stubbornly stick to a favoured view or argument when other more effective possibilities or explanations exist.

- Confusing correlation with causation. In other words, asserting that when two things happen together, one causes the other. Without direct evidence, this assumption isn't justified.

14. Creative thinking

Effective critical thinkers are also largely creative thinkers. Creative thinkers reject standardized formats for problem solving -- they think outside the box. They have a wide range of interests and adopt multiple perspectives on a problem. They're also open to experimenting with different methods and considering different viewpoints.

The biggest difference between critical thinkers and creative thinkers is that creativity is associated with generating ideas, while critical thinking is associated with analysing and appraising those ideas. Creativity is important to bringing in novel ideas; critical thinking can bring those ideas into clearer focus.

15. Effective communicators

In many cases, problems with communication are based on an inability to think critically about a situation or see it from different perspectives. Effective communication starts with a clear thought process.

Critical thinking is the tool we use to coherently build our thoughts and express them. Critical thinking relies on following another person's thought process and line of reasoning. An effective critical thinker must be able to relay his or her ideas in a compelling way and then absorb the responses of others.

16. Active listeners

Critical thinkers don't just want to get their point across to others; they are also careful to engage in active listening and really hear others' points of view. Instead of being a passive listener during a conversation or discussion, they actively try to participate.

They ask questions to help them distinguish facts from assumptions. They gather information and seek to gain insight by asking open-ended questions that probe deeper into the issue.

Common Barriers to Critical Thinking

1 Egocentric nature and thinking patterns:



Egocentric nature or behaviour is a natural tendency and is many a time difficult to overcome. Such a barrier is making the person think about himself and leads to the inability to not to sympathize with others to understand their issues and problems. And one's ego can be one of the most significant Barriers to Critical Thinking.

It is more of a character flaw, and despite several attempts of change; it is quite difficult for one to change. Such people lack to evaluate the perspective and feelings of others and make it disturbing for other people to work with them in a team.

2 Group Thinking:



Group Thinking is yet amongst the harmful Barriers to Critical Thinking, plus it is also quite unhealthy. In such a case, the person doesn't have his own opinion or decision in any given case or situation. To overcome the same, it requires the individuals of the group to stand apart and question and formulate their thoughts, opinions, and ideas.

The proverb of, 'Too many cooks, spoil the soup' aptly applies to this barrier as there is no independent action by the person.

3 Drone Mentality:



Drone Mentality barrier can be explained as when a person doesn't pay attention during the important work meetings and discussions. And it hails upon any time and on anyone affecting the process of critical thinking. Very often, daily and mundane routines make a person fall prey to drone mentality.

The managers and the HR department of the firm must keep the employees intrigued with challenging tasks and motivational factors.

4 Social Conditioning:

Many of us have a habit of thinking within our comfort zones, and we refrain to even think outside our spectrum as we are taught to think in a certain way and manner owing to the various social conditions.

Barriers to Critical Thinking owing to social conditioning involves stereotyping things and people around us and having unwanted assumptions that make it quite difficult for people around us in the organization to work.

It requires cultural and social awareness to overcome this behavior and barrier.

5 Biased nature and experiences:



Having a personal bias is one of the biggest Barriers to Critical Thinking as it curbs and prohibits a person from making decisions that are fair, open-minded, and transparent.

It also prevents the person to use logical reasoning, experience, and the basic common sense to make decisions that are informed and valid.

6 Work pressure:



Quite many numbers of times at our workplace, we are overloaded with stringent deadlines, and it does affect our skill of critical thinking. But the silver lining is that a person can also sharpen his critical thinking skills and abilities amidst the tough and tight deadlines.

When the time is short, and a deadline needs to be met, we often go for an option of completing the work without any strategic thinking and long term vision. And here is when the barrier arises to thinking critically.

7. Arrogance:

Arrogance is a bad attitude and often hinders with critical thinking abilities. It makes a person with a closed mindset and with an opinion that he knows everything and there is no further need for learning new things.

Arrogance makes the person fail on a long-term basis as he has closed his channels of learning and is unable to assess the rewards and benefits of critical thinking.

8 Stubborn Nature:



One of the Barriers to Critical Thinking is stubborn nature as a person with such a nature has his own set of beliefs and ideologies. And such a barrier is not very welcomed in the world of business, especially the corporate world as it is ever evolving and dynamic in nature and its approach.

The person has to be open to changes and come out from his present beliefs understanding that the world of business is quite fluid and fast-paced and demands flexibility and adaptability.

9 Fear:

Fear often acts as a barrier not only critical thinking but also for the overall growth and development of a person. Fear makes him unconfident, demotivated, and not very agile to think out of the box and come up with the ideas and strategies.

Fear can arise out of the various reasons such as anxiety, depression, self-esteem issues, and other such personal reasons affecting a person's professional life as well.

10 Laziness:



Critical thinking requires a person to do a lot of research, study literature that is work-related, and be open to learning new things for growth and development. But when a person is lazy, it acts as one of the Barriers to Critical Thinking.

Way to Improve Critical Thinking

1. Ask Basic Questions

Sometimes an explanation becomes so complex that the original question gets lost. To avoid this, continually go back to the basic questions you asked when you set out to solve the problem.

Here are a few key basic questions you can ask when approaching any problem:

- What do you already know?
- How do you know that?
- What are you trying to prove, disprove, demonstrated, critique, etc.?
- What are you overlooking?

Some of the most breath-taking solutions to problems are astounding not because of their complexity, but because of their elegant simplicity. Seek the simple solution first.

2. Question Basic Assumptions

The above saying holds true when you're thinking through a problem. It's quite easy to make an ass of yourself simply by failing to question your basic assumptions.

Some of the greatest innovators in human history were those who simply looked up for a moment and **wondered if one of everyone's general assumptions was wrong**. From Newton to Einstein to Yitang Zhang, questioning assumptions is where innovation happens.

You don't even have to be an aspiring Einstein to benefit from questioning your assumptions. That trip you've wanted to take. That hobby you've wanted to try. That internship you've wanted to get. That attractive person in your World Civilizations class you've wanted to talk to.

All these things can be a reality if you just **question your assumptions and critically evaluate your beliefs about what's prudent, appropriate, or possible**.

3. Be Aware of Your Mental Processes

Human thought is amazing, but the speed and automation with which it happens can be a disadvantage when we're trying to think critically. Our brains naturally use heuristics (mental shortcuts) to explain what's happening around us.

This was beneficial to humans when we were hunting large game and fighting off wild animals, but it can be disastrous when we're trying to decide who to vote for.

A critical thinker is aware of their cognitive biases and personal prejudices and how they influence seemingly “objective” decisions and solutions.

All of us have biases in our thinking. Becoming aware of them is what makes critical thinking possible.

4. Try Reversing Things

A great way to get “unstuck” on a hard problem is to try reversing things. **It may seem obvious that X causes Y, but what if Y caused X?**

Even if it turns out that the reverse *isn't* true, considering it can set you on the path to finding a solution.

5. Evaluate the Existing Evidence

When you're trying to solve a problem, it's always helpful to look at other work that has been done in the same area. There's no reason to start solving a problem from scratch when someone has already laid the groundwork.

It's important, however, to evaluate this information critically, or else you can easily reach the wrong conclusion. Ask the following questions of any evidence you encounter:

- Who gathered this evidence?
- How did they gather it?
- Why?

Take, for example, a study showing the health benefits of a sugary cereal. On paper, the study sounds pretty convincing. That is, until you learn that a sugary cereal company funded it.

You can't automatically assume that this invalidates the study's results, but you should certainly **question them** when a conflict of interests is so apparent.

6. Remember to Think for Yourself

Don't get so bogged down in research and reading that you forget to **think for yourself**—sometimes this can be your most powerful tool.

Don't be overconfident but recognize that **thinking for yourself is essential to answering tough questions**. I find this to be true when writing essays—it's so easy to get lost in other people's work that I forget to have my own thoughts. Don't make this mistake.

7. Understand That No One Thinks Critically 100% of the Time

You can't think critically all the time, and that's okay. Critical thinking is a **tool** that you should deploy when you need to make important decisions or solve difficult problems, but you don't need to think critically about everything.

And even in important matters, you will experience lapses in your reasoning. What matters is that you **recognize these lapses and try to avoid them in the future.**

Even Isaac Newton, genius that he was, believed that alchemy was a legitimate pursuit.