

Techniques for Improving Creativity in children in the 21st Century

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Abstract

In order to prepare our pupils for the unpredictable and rapidly evolving environment they will encounter in the future, it is crucial that we teach them resilience and adaptability. Creativity is one of these abilities that has recently been getting a lot of attention in educational settings. Teachers are starting to pay more attention to the requirement of making good use of new technology to foster students' creativity as a result of the proliferation of digital resources. The purpose of this study is to examine and comprehend the application of new technology to foster creativity in educational contexts by methodically reviewing existing studies. According to the research that is already out there, kids' creativity is greatly enhanced by new technology, especially in classrooms that use interactive learning tools. On the other hand, there are a number of problems with these studies, including an insufficient measuring procedure, an unclear implementation approach, and a lack of information about the study's design.

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Introduction

Creativity is the interaction between the learning environment, both physical and social, the attitudes and attributes of both teachers and students, and a clear problem-solving process which produces a perceptible product (that can be an idea or a process as well as a tangible physical object).

The word creativity in English derived from the original Latin word 'creates' which literally means to have grown. The term creativity is a psychological phenomenon that contributes to mental process involving the generation of new ideas and concepts or new associations between existing ideas or concepts.

Creativity, according to Torrance (1977), is "...a new way of looking at problems" and "recombining ideas or seeing new relationship among ideas..." (page 6). Creative thinking is defined by Franken (1998) as "the tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others". Various conceptions of creativity highlight the need of both originality and practicality (Plucker et al., 2004, 2010; Sternberg, 2006). According to Carr & Tomasco (2010), and Baer & Oldham (2006), those who are creative are able to come up with new ideas or approach complicated jobs from a fresh perspective. One definition of creativity is the ability to think of novel and useful ways to solve problems (Amabile 2018; Henriksen et al., 2018; Oldham & Cummings, 1996; Runco & Jaeger, 2012).

Nature and characteristics of Creativity (Guilford, J. P. , 1973, Kettler et.al., 2018)

- Creativity is universal
- Creativity is innate as well as required
- Creativity produces something new or novel
- Creativity is adventures and open thinking
- Creativity is a means as well as end in itself
- Creativity has a wide scope
- Creativity responds on divergent thinking than on convergent thinking
- Creativity cannot be separated from intelligence
- Sociability and creativity are negatively correlated
- Creativity and school achievement are not correlated

Characteristics of Creative individuals (Bottani, E., 2010, Carr, A., & Tomasco, S. 2010, Gralewski, J., 2019)

The following are the characteristics of high creative individuals.

- Has in-depth foundational knowledge
- Prefer complexity and open-endedness
- Contribute new concepts, methods, products or performances
- Has extreme fluency of thoughts and a large number of ideas
- High attention span
- Uses unique solutions to problems, improvises
- Challenges existing ideas and products
- Connect different ideas
- Constantly ask questions
- Criticize constructivism
- Adventurous risk taken
- Highly confident
- Is attracted to novel ideas
- Emotionally sensitive, sensitive to beauty
- Has divergent thinking
- Is reflective about personal creative process

- High problem-solving capacity

According to Craft (2010), Harris (2016), and Henriksen et al. (2018), creativity is seen as a crucial talent for students in the modern day. Collard and Looney (2014), Craft (2001), Cropley (2012), and Katz-Buonincontro and Anderson (2020) are just a few of the studies that have investigated methods that offer students creative learning opportunities both in and out of the classroom. Technological advancements in the last several years have changed the way schools operate. Henriksen et al. (2016) and Yalcinalp & Avci (2019) found that in classrooms with plenty of technology, teachers may employ digital resources to spark students' imaginations. For instance, according to Burkhardt and Lubart (2010), digital technology may be used to enhance creative problem-solving processes, encourage brainstorming sessions, and even help with new art design.

Techniques for Improving Creativity in children

1. Reading (Smogorzewska, 2014)

You'll mentally stimulated by reading. It challenges the mind to see and understand things that aren't physically presented. Reading ignites your thoughts on a subject and introduces you to additional imaginative possibilities. Regular reading can undoubtedly improve your brain's creative capacity. Further stimulating your brain is reading about other creative and successful people. Reading about the lives of creative people can educate and broaden your perspectives. It makes clear the difficulties you could encounter and how to get around them.

2. Random words (Jarmiati et.al., 2020)

In order to address an issue, participants are asked to identify a word or phrase relating to the topic using the random words technique. One way to enhance collaboration within a department could be for a group to write the phrase "teamwork" in the middle of a whiteboard. Participants create a list of terms or phrases related to that idea, either individually or collectively. Words like cooperation, positivism, listening, support, and communication may be pertinent. By using this method, participants can break down abstract difficulties into manageable tasks by discovering concepts associated with the problem they wish to solve.

3. Journaling (Bartscher et.al., 2001)

List all of your original creative ideas in a journal that you write and maintain. This will assist you in taking stock of your actions and considering other solutions. Later on, these original concepts provide inspiration. Similarly, if a creative idea or part of an idea occurs to you, make it a point to jot it down in a smartphone notebook or a pocket-sized notebook that you can carry with you. Since you can't really draw on your phone and it allows for interruptions, a notebook is preferable.

4. Brainstorming (AlMutairi, 2015, George, K. M., 2016)

One effective method for enhancing your creativity is brainstorming. To generate as many ideas as possible, you could jot down related concepts and alternative solutions. You complete this quickly, without giving it any thought or self-criticism. After you've written, spend some time developing and honing your concepts to make the greatest decision. Similar to brainstorming, brainwriting encourages the creation of ideas in a collaborative environment. During a brainstorming session, the team determines the main idea or issue

statement for their project. After then, each person independently compiles a list of concepts or possible fixes. Those who are uncomfortable speaking out loud can be encouraged to participate with the use of this strategy. The facilitator can compile and distribute the lists throughout the group once members have completed jotting down their suggestions. Upon seeing the list, the recipients come up with new concepts, either expanding on the original ideas or coming up with completely unrelated ones. A time limit or a maximum number of ideas that participants must write during each round may be imposed in certain variations. In the end, the group can talk about these concepts to determine which ones are the most practical.

The process of brainstorming fosters an atmosphere that encourages you to freely generate original ideas and thoughts. Individual and group brainstorming are the two different forms of brainstorming. The best ideas come from individual brainstorming when creating straightforward solutions that don't require a larger group. When brainstorming alone, you can generate fresh concepts without worrying about limitations that may arise in a group setting. You have the freedom to be who you are and to freely experiment with different concepts. Getting a piece of paper or using a blackboard and writing down everything that comes to mind is the greatest method. Your ideas will become more refined the more you discard them. During brainstorming sessions in groups, ideas are thrown at one other and then developed collaboratively. Group brainstorms come in handy when there is a complex issue (or even several of them).

There are several techniques of group brainstorms:

- **Round-Robin brainstorming** → every member of the group shares an idea first, and then you discuss it all.
- **Role-storming** → group members characterize roles while brainstorming.
- **Star-bursting** → the whole team comes up with questions that boost creativity in developing a solution.

Whenever you are brainstorming, individually or in a group, make sure to remember to “think outside the box.” Count all ideas, don't be shy or dwell too much, and consider all perspectives.

5. Negative brainstorming (Wilson, C., 2013)

Participants in negative brainstorming come up with a list of "bad" answers to the issue they're trying to address. By identifying hurdles and working on reversing them, groups can use this strategy to generate creative solutions. For instance, a group might want to increase sales. Participants may submit "bad" ideas that increase the cost or decrease the usefulness of the final product. Similar to brainstorming, the group can jot down as many ideas as they can in that period. After that, they can debate the concepts as a group and figure out how to change these bad concepts into good ones.

6. Random input association (Oluwade, 2015, Fletcher & Benveniste 2022)

The association method of random input (phrase or object) is similar to a spark plug for creativity. It's an exercise in lateral thinking where you have to choose any word or object at random and then allow your thoughts to relate it to the issue at hand. It's a little different

than brainstorming. If your random word is "ocean," for example, and you're working on a team management problem, you may compare the ocean's size to the variety of viewpoints that your team brings to the table. It's a light-hearted approach to stray from your typical thought processes or tedious brainstorming sessions and discover novel, surprising concepts that may inspire creative solutions.

7. **Six Thinking Hats** (Sohi & Singh, 2023, Karmakar & Chattopadhyay 2024, Lee & Kang, 2014)

Edward de Bono created the analytical gem, the Six Thinking Hats technique, which can push creative thinking outside your comfort zone. It not only helps predict what lies ahead but also proactively tackles typical group dynamics problems like:

- Contradictory viewpoints that cause misunderstandings
- Confrontational tactics that lead to disputes

Check out what the *six hats* represent:

1. **White Hat (Facts):** Objective and factual thinking, focusing on available information
2. **Red Hat (Emotions):** Intuitive and emotional thinking, exploring feelings, hunches, and gut reactions
3. **Black Hat (Critical Judgment):** Analytical and cautious thinking, highlighting potential risks and identifying weaknesses
4. **Yellow Hat (Optimism):** Positive and constructive thinking, emphasizing benefits, possibilities, and opportunities
5. **Green Hat (Creativity):** Creative and exploratory thinking, generating new ideas and considering alternatives
6. **Blue Hat (Control):** Managing the thinking process, focusing on organizing thoughts, summarizing, and planning next steps

Managers have the ability to designate a meeting's style. For example, a green hat mode encourages the flow of creative ideas, but a black hat mode shifts the focus to a more analytical manner. This brainstorming strategy promotes clarity and peaceful group dynamics by providing an organized method for investigating decisions from several perspectives, all while utilizing the clever usage of different colors.

8. **Listen to Music** (Murphy, 2017, Simatupang et.al., 2021)

Music fosters creativity and creates the ideal atmosphere. Certain instrumentals or calming music are excellent for stimulating the creative mind. Our emotional response to music ignites our creative brain process. For the majority of us, instrumental music is ideal as lyrics in music sometimes cause our attention to wander. When we are deeply immersed in creative thought, we can certainly work with lyrics in our music; but it may be more effective to choose instrumental music instead of expressive music.

9. Gallery method (Hoffmann et.al., 2021)

A group leader sets up stations using flip chart paper or personal whiteboards when using the gallery method. Every participant has a designated station where they jot down all of their thoughts around the key topic or problem statement. A few minutes later, the participants round the room to see and annotate each other's stations. After then, they go back to their starting point and go on refining their original concepts while drawing inspiration from the thoughts of the other group members. This method can support people's thoughts and encourage different perspectives on an issue or solution.

10. Storyboarding (Liu et.al., 2011)

Storyboarding is a common tool used by teams to organize presentations, video content, business proposals, and advertising campaigns. Participants use this strategy to draft an outline for the project they are working on. This outline does not have to be finished at this point and can include both written and visual components. Before beginning production, participants can better arrange their ideas with the aid of this creative process. Teams can easily modify the structure of tales using the outline style, adding or removing sections as their ideas grow. Storyboards are like comic strips that help plan out a story or project. Each square on the board shows a different snapshot of the story. Video producers, design teams, and storytellers use them to develop ideas. For creative projects, storyboarding can be conducted in four steps:

1. Spell out the idea for the participants so they can prepare beforehand
2. Map out the ideas presented on a whiteboard—every doodle or squiggle can be a springboard for innovation
3. Invite participants to add annotations and questions to the board
4. Allow the team to finalize solutions and assign responsibilities for execution

11. Roleplaying (Craciun, 2010, Yunitasari et.al., 2017)

Using the roleplaying technique, players take on fictional identities and consider issues and potential solutions from their points of view. A product development team might, for instance, take on the persona of a possible client. By considering the product from the customer's point of view, the deal can be made to produce concepts and solutions that satisfy their requirements. Participants can roleplay as different people in different situations to examine the issue from different angles, such as an experienced user versus a first-time user.

12. Taking a Break (Gong et.al., 2020)

It's critical to promote creative thinking by getting out of the office, taking a stroll, or just doing unproductive things. Undoubtedly, taking these breaks helps generate some of the most innovative ideas. Creating a spatial separation between oneself and an idea enhances creativity and stimulates problem-solving. More creative thoughts usually arise from a calmer mind; however, you may want to address important issues while you are most attentive and focused.

13. A Change of Environment (Cornelius & Casler, 1991, ALFUHAIGI, 2014)

As they say, change is as beneficial as rest. Get your creativity flowing again by taking a trip outside of town. If you can't travel, you can alter the walls in your home or place of business. One way to achieve this would be to paint your wall a brighter color or vice versa. Additionally, you could use wallpaper, change the lighting, and add any other décor you see proper. Even though you might not have much control over your workplace, try to seize the chance to work occasionally in different parts of the business. These changes may result in a notable increase in creativity. You might also choose a different route or mode of transportation to go to work. Consult outside. Investigate a new neighbourhood. Changing your surroundings will give you a fresh perspective.

14. Doing Something New (Nipriansyah et.al., 2021)

Taking part in novel activities broadens your horizons and generates fresh thoughts. This entails venturing outside of your comfort zone and investigating. You may, for instance, try new meals, socialize with new people, play new activities, or dress differently. For one day, make a change. For example, meeting new people can assist you in expanding your knowledge and gaining new perspectives on topics. Getting to know new people and hearing their stories can be educational. Taking up new hobbies is an artistic endeavor. It's also possible to follow other passions. Developing your creative abilities gives you the chance to use them in new, even related, contexts. If you can play the piano, you could try your hand at playing the guitar. You may try photography as a writer. Try your hand at acting or play-directing if you have a nice voice. It's crucial to keep pushing oneself. Changing up your routine and approaching tasks in novel ways can help your brain become less automatic and prevent it from functioning in autopilot. As a result, the brain is forced to interact with what is novel in its environment, leading to increased creativity.

15. Meditating (Ding et.al., 2014)

One can become calmer, gain insight, clarity, and sharpen your attention by practicing meditation. A relaxed and rejuvenated mind is receptive to original ideas and imaginative concepts. By streamlining your ideas and boosting output, meditation unlocks cerebral potential. Furthermore, emotional drive is increased by meditation. Those who have mastered the discipline of meditation are capable of controlling their irritability, anxiety, and despondency. Not only do creative individuals never grow old at something, but they also never stop being amazed and appreciative of it instead of shutting it out because they think they've seen it all before.

16. Physical Exercise (Piya-Amornphan et.al., 2020, Latorre et.al. 2017, Oppezzo & Schwartz, 2014)

Physical activity stimulates your brain. Exercises like running, yoga, rope skipping, push-ups, and sit-ups may be included. When we exercise, our bodies become more flexible and our minds become detached from work, leading to deeper creative moments.

17. Mind mapping (Su et.al., 2022, Zubaidah et.al., 2017)

Participants in mind mapping write a problem statement in the middle of a paper or whiteboard. They then add further ideas or solutions in the vicinity of the problem statement and indicate links between them by drawing lines. To further connect this layer with the

preceding one, participants might add another set of sentences that explain how they intend to implement the concepts or solutions that have been suggested. With the help of this ideation tool, users can see the connections between their ideas by visualizing a network of thoughts.

18. Bounce ideas (Drapeau, 2014, VanGundy 2004)

Discussing an idea with trusted others will help you come up with original ideas, even if they have different viewpoints. Someone could bring up something during a conversation that causes the other person to think differently. Teams of people who collaborate to collaboratively brainstorm innovations within the team can provide some very innovative ideas. They exchange concepts, pose inquiries, and keep getting better until a product is flawless. Therefore, it's critical that you be a valuable team player with the ability to push innovative ideas to new heights.

19. Reversals (McFadzean, 2000, Kalyuga, 2007, Moghadam & Razavi, 2022, Fallah et.al., 2022)

Participants in the reversals approach take the problem question and flip it. For instance, a group may wish to lower staff churn. Participants in this activity would pose the question, "How can we increase employee turnover?" By providing a response, the team pinpoints the causes of the problem, such as the adoption of a bad culture or overworked staff members. By showing participants what not to do, these responses help them come up with solutions that lessen these contributing elements and decrease turnover rates. They can come up with plans for allocating reasonable workloads and fostering a happier workplace in this situation.

20. Mood boards (Omwami et.al., 2024, Kuusisto-Korczak, 2019)

Artists and designers frequently utilize mood boards, which are collages with text, images, and samples of materials. Mood boards, however, might provide ideas for different job initiatives. This tool helps organizations present abstract ideas in a more concrete way. One way a team may come up with marketing plans for a new product is by making a mood board. They can use branded colors and pertinent phrases that they want people to understand from their campaign. Additionally, they might utilize pictures of happy people to convey the emotions they want the viewers to feel.

21. Picture prompts (Lee et.al,2023)

Pre-selected photos are used in picture prompts to encourage spontaneous associations within a group. This method starts the group discussion with a main idea or problem statement. A facilitator can give each participant a folder containing up to ten ready-made photographs, or they can show the group each picture one at a time. The group comes up with ideas about the main theme or problem statement by using the photographs. This method can facilitate the process of managing brainstorming sessions by bringing in external factors to stimulate novel and surprising connections.

22. Metaphorical thinking (Saragih et.al., 2016, Lewis, T., 2009)

Metaphors can be literal or conceptual, and they compare two or more things. For instance, because a map depicts a place, it can be used as a metaphor for that location. Metaphors are a useful tool for people to connect ideas and come up with new notions.

Metaphors are another tool they might use to bring abstract ideas to life. A group might utilize metaphorical thinking to liken its company to a flower, for instance. The company functions like a plant since it requires patience, care, and attention to develop. The team can come up with ideas for things they can do to support the success of the firm by drawing these analogies.

23. Similarities and differences (AlMutairi, 2015, George, K. M., 2016)

Using this method, participants are asked to select two things. The second object is a related thing, and the first object stands for the problem they are trying to solve. For instance, someone who wants to get better at managing their time can decide to use a clock to symbolize the issue and a calendar to symbolize a related item. The person makes a list of the two objects' commonalities and then a list of their disparities. Both items keep track of time, however a calendar keeps track of dates, whilst a clock keeps track of seconds, minutes, and hours. The person might come up with ideas for better time management strategies based on these parallels or differences, such as organizing their week ahead of time or assigning chores on an hourly basis.

24. Ideal final result (AlMutairi, 2015, George, K. M., 2016, Wilson, C., 2013)

The optimal end result approach is applicable in both group and individual contexts. Participants in this issue-solving method first establish a problem statement and then explain the perfect solution. Participants should debate the ideal outcome without taking limitations like timelines or finances into account. With the use of this technique, they may visualize the optimal solution to the problem without being constrained by any constraints. They can start concentrating on workable solutions when they have established prospective ideas.

25. Worst idea (AlMutairi, 2015, George, K. M., 2016)

Participants in the worst idea technique are asked to think of their worst answers to a given issue. Even if all ideas are encouraged during a brainstorming session, some people may still be anxious about possible criticism; this method allays that anxiety by welcoming terrible ideas. Because participants attempt to amuse one another and use their imaginations to come up with absurd ideas, it frequently creates a more enjoyable atmosphere. Your facilitator will ask your team to identify the reasons why each of their worst ideas is a bad idea after each member has given a pitch. Now, in order to change those terrible thoughts into potential solutions, the participants need to consider the opposites of those undesirable traits. Their surprising worth can be shown in the connections or inspiration that can arise from even talking about the worst ideas, which can ultimately lead to creative solutions.

26. Sleep (Kapsi et.al., 2021, Lim et.al., 2024)

Particularly when you are unable to comprehend a solution, go to bed or take a sleep. When you wake up in the morning and are more rested, you might come up with a better option. This is because getting enough sleep enables the brain to connect disparate concepts, leading to increased creativity.

27. Questioning assumptions (Lucas & Spencer, 2017, Sternberg & Williams, 1996)

Many sectors have presumptions about how things should be done, but this method questions those presumptions in an effort to generate more creative solutions. Because of this,

you might want to develop a new product or use this strategy to enhance an already-existing one. Consider the problem you want to address or the idea you want to develop, and then collectively list 20 to 30 assumptions about that good or service. These presumptions should encompass every facet of your company and can be both favorable and negative. Next, go over these presumptions (or select a few, based on time limits) and talk about whether they are accurate or have simply never been questioned before. By doing this, your team may come to the realization that some presumptive traits or approaches are not required, allowing you to replace them with fresher, more creative concepts.

28. Sarcasm (Huang et.al, 2015)

Sarcastic people seem less frightening than angry ones. Just hearing sarcastic communication of rage can help solve creativity problems.

29. Daydream (Valkenburg et.al, 1994, Freud, 1993)

Remarkably, it's never illegal to let your thoughts roam. Sometimes, when our minds wander from work, we tend to come up with new ideas. You may let your mind wander while concentrating on an image or work of art that you believe represents the pinnacle of creativity. Let your creativity go wild and don't be scared to be ridiculous. Daydreaming is a creative practice. When you're bored, daydreaming comes naturally to you because when you're constantly occupied, you don't give your mind room to roam. We rarely spend a moment unentertained while we are not working, thanks to our smartphones, TV, movies, publications, and video games, to mention a few. Sometimes, in order to foster creativity, it's necessary to turn off your electronics and become bored.

30. Work Under Pressure (De Bono, 2015, Amabile et. al., 2012)

Boundaries force us to be inventive. Limited alternatives or time constraints might foster inventive thinking. The majority of individuals put things off until the very last minute, and when this happens, their creative thinking is most effective. It's crucial to make an effort to impose limitations on yourself. Some examples of such limits are writing a poem in a short amount of time, writing freehand, drawing a portrait in two colors, finding a riddle to solve, setting deadlines, and imposing regulations. Simply challenge yourself, and you'll notice an improvement in your cognitive agility. Your mind will function automatically if you are engrossed in your comfy daily routine all the time. You will be startled into a greater state of awareness if you overload yourself.

31. Make Something (Peni, & Ratnaningsih, 2022, Taqiyyah & Cahaya, 2023)

Connect the dots by assembling fragments to stimulate your mind. Every time we perform a physical activity that we haven't done before, our minds are stimulated in novel ways that can lead to creativity, for example. Construct a paper boat or mend a broken toy. Just get something done, especially if you're feeling overwhelmed. A creative person has to be fed. This suggests that you need to constantly remove yourself from the daily grind of work. The goal is to overcome obstacles without giving up.

32. Lateral Thinking (Srikongchan, 2021)

Undoubtedly, creativity involves the capacity to think beyond our accustomed ways of thinking. Thus, lateral thinking entails adopting a fresh perspective on a given circumstance.

Our minds become accustomed to approaching problems in a routine, conventional, and linear way over time. Puzzles and any other activity that pushes you to think outside the box can help you break the habit of thinking in the same manner. Among other puzzles, sudoku and crosswords can test your rigid thinking and make you come up with original solutions.

33. Change Viewpoint (Mustofa et.al., 2020)

Putting yourself in other people's shoes is part of this. As a creative thinker, it's possible to acquire an overemotional attachment to your work. This implies that you might be too close to see errors that are obvious from a distance. To acquire a new set of eyes to look at your work, it is crucial that you share your creative ideas with others. You will be promoting constructive criticism if you do this.

34. Ask Questions (Asmira, 2021)

We grow accustomed to the way things work in our life and stop questioning their inconsistency in the same way that kids do. Children explain the world in incredibly original and unique ways. We may act foolishly just because it's how we've always done things. To portray a totally innocent role and cleanse your mind is an uphill job. But when we do this on a regular basis, our observations start to take on new meaning. You will perceive issues and provide answers differently when you are filled with curiosity once more. When having a discussion, listening in class, or just hanging out with friends, feel free to ask questions. Being interactive by asking questions will give a better grasp of the other person's emotions, thoughts, and insights, which in return expands your own creativity.

35. Sketching (Atencio et.al., 2019)

Sketching can be a useful tool while designing a product to help you explore your ideas further. It can assist your team come up with more abstract ideas because some people find it simpler to express their ideas graphically than orally. Since these should be preliminary drafts or simple sketches that represent your ideas, there is no rush to create a flawless or final depiction of your product. Brainwriting and collaborative or group sketching are comparable, but each person draws concepts rather than writes them down. After then, other participants build upon these drawings by passing them around, and eventually they are shown to the entire group for discussion. You might discover connections between the sketches during this conversation that will assist you in coming up with the best possible design. Once more, this is an excellent choice for teams with a stronger artistic sensibility and guarantees that all suggestions are taken into account by the group.

36. Practice Daily (Yildirim, 2010)

Setting aside time each day to reflect deeply is crucial to fostering your creative spirit. You can develop the kind of creativity you want in your work by practicing your trade every day. It's critical that you don't abandon your endeavors. Set aside time, make a goal, and ask for assistance from people every day.

37. Analogies (Rule & Olsen, 2016)

An analogy is a comparison of two things or thoughts that might help you come up with new ideas. An analogy can help you make the problem you're trying to solve simpler. To achieve this, contrast your circumstances with a scenario that everyone has encountered. You

can utilize a template similar to this as a group: How can we make [x] true for our circumstance if it is true for that one? A marketing team might claim, for instance, that their sector is similar to fishing. Just like a marketing campaign has a target audience that it hopes to attract, a fisherman needs to know what kind of fish he wants to catch and what bait attracts them. They are now beginning to come up with ideas about what kind of "bait" to concentrate on or what tactics may result in acquiring customers more quickly.

38. SCAMPER (Gündoğan, 2019, Ozyaprak, 2016)

SCAMPER stands for seven different viewpoints on an issue or project, which helps you generate ideas from a range of angles. This method is useful for figuring out how to make an existing product or service better or for using it as a springboard for creating a brand-new one. Consider the SCAMPER aspects as you pose questions to yourself, and assess whether your responses offer workable solutions. You might come up with solutions by approaching the good or service from these various perspectives, which you might not have otherwise considered. Here is what SCAMPER stands for, and an example question for each element:

- **Substitute:** What features of this product or service can be substituted or swapped for something else?
- **Combine:** How can we combine this product or service with another product or service to improve it?
- **Adapt:** How could we adapt this product or service to another audience?
- **Modify:** What component of this product or service can we modify to improve it?
- **Put to another use:** What is another use for this product or service that we have not considered yet?
- **Eliminate:** What unnecessary elements can we eliminate from this product or service to streamline it?
- **Reverse:** What would happen if we reversed our process or reorganized this product?

39. Exaggeration (Lee et. al., 2023, Lau et. al., 2009)

Incorporates the SCAMPER heuristic's two versions of magnify (or "stretch") and minimize (or "compress") techniques. This approach is useful for generating potential solutions. Illustrating an issue and putting unstated assumptions about its magnitude to the test is a valuable exercise. If the situation were of a different scale, it might assist to consider what would be suitable.

40. Bodystorm (Segura et. al., 2016)

Using the bodystorming technique, people are asked to role-play scenarios. Putting yourself in the shoes of your potential user can help you think more empathetically about the problem, and ideation is a key component of the design thinking process, which is focused on user needs. Engaging in physical activity can also assist people become more energized and excited about coming up with ideas. It could be necessary to set up the scene around which

you are trying to generate thoughts. While coming up with suggestions on how to accomplish those goals concurrently, have participants role-play the procedures you are trying to streamline or the circumstances you are trying to resolve. Through bodystorming, participants can tackle seemingly abstract topics practically.

41. Five W's and one H (D'Angelo, 2011)

Using this approach, participants first choose a task or issue statement, and then they make a checklist using the often-used question terms in journalism: who, why, what, when, where, and how. Responding to these queries can assist participants in narrowing their focus and coming up with pertinent answers. This set of inquiries, for instance, can be used by a group promoting a new kitchen tool to create its messaging and marketing plan. They can use the following questions and their responses to develop marketing messages that address their target customers' needs:

- Who are our target customers?
- Why do those customers need this tool?
- What would customers use this tool to do?
- How can customers use this tool?

42. The Snowball Technique (Purdiyanto et.al., 2022)

Another excellent technique to increase your creativity is the Snowball Technique. It helps you to come up with several ideas that you may utilize for different projects rather than throwing them away. It works best to assemble in a circle with 4-6 team members for this strategy. You choose the topic first. Everyone then jots down their initial ideas regarding the theme. The coworker sitting next to you receives these observations, and they are then challenged or written about. This procedure keeps going until each person receives their original comment back. This approach will spark your creativity and provide you with a more profound understanding of how other individuals view the same topic.

43. Learn about the history of design & art (Meloche & Katz-Buonincontro, 2018)

Examining the past is one approach to enhance your creativity in the now and now. Put differently, it is imperative that you familiarize yourself with the preceding events. Even though the things you create may not fall into the same category, make an investment in design literature. You will become familiar with ideas and concepts that were innovative for their time by learning more about earlier movements. Additionally, you'll get more self-assurance when thinking creatively. Second, gaining an understanding of the foundations of art—such as form, composition, balance, and complimentary colors—may also give you a better understanding of how others see the world around them. This kind of knowledge could help you see things more clearly and identify things that the normal viewer would miss. Examine the various forms of art that are all around you by watching films or listening to music. Everybody has a favorite music that makes them feel better. According to some research, listening to music can improve your ability to engage in "divergent" thinking, which is the process of forming novel connections, combining ideas, or refining information into more sophisticated models.

44. Silent meetings (Olearczyk, 2021)

It may seem strange to you, but quiet has a lot of power. It makes room for reflection and gives quieter team members a chance to share their thoughts. Similar to "table reads," silent meetings let attendees to silently or in async mode express their opinions. Not just the loudest voices, but all voices can be heard during these sessions, leveling the playing field. There is no requirement that everyone be present in the same physical or virtual location. Meeting materials can be used, ideas can be exchanged, and responses can be given at any time. This approach enables more deliberate and thorough contributions and gives participants more time to think through and express their ideas. Frequently, email threads, written platforms, or collaborative technologies are used for silent meetings in order to facilitate inclusive participation and accommodate different time zones or work schedules. Many collaboration tools are available from ClickUp to improve your silent meetings. It supports you with everything from crafting effective meeting agendas to gathering opinions in ClickUp Docs and Notepads.

45. Slip Writing (Wilson, 2013, Oluwade, D. O. & Oluwade, B., 2015, Ahrens, 2022)

This approach is capable of collecting ideas from groups ranging in size from dozens to hundreds. After receiving slips of paper, participants are instructed to jot down ideas, which are then either discussed or rated. While simultaneously fostering a sense of ownership or participation, this strategy efficiently gathers a huge number of ideas.

46. Laddering (Zaman, 2011)

A technique called "why method" or "laddering" allows one to generate ideas by switching between two different abstractions. The development, evaluation, and adjustment of hierarchical knowledge are all a part of laddering processes. As one descends a ladder that contains more abstract notions, one encounters more concrete examples of those same ideas or concepts. Students may get insight into how experts classify ideas and gain clarity about concepts and their relationships through the use of laddering.

47. Fishbone (Akhan et. al., 2022, Munawir, 2022)

The fishbone method is a visual organizer that may be used to find the potential sources of an issue. By showing how several aspects of an issue interact with one another, this method dissuades hasty or incomplete solutions.

48. The Mystery Spot (Lambert, 2017, Gilhooly, 2017, Oluwade, D. O. & Oluwade, B., 2015)

Teachers introduce a central idea through a mystery story (videos, animations), students attempt to solve the mystery using what they know, and the story develops as students research the problem, letting the teacher incorporate information from a variety of sources and levels of expertise. Science lessons are woven into a captivating story by the mystery. There is a wide appeal to the stories, and they engage pupils in the learning process. Plus, it's a versatile tool that teachers may use to make up stories that cover the topics they want their students to learn.

49. DO IT (Oluwade, D. O. & Oluwade, B., 2015)

Everything here speaks for defining problems, being open to several answers, finding the greatest one, and then turning it into practical action. Each of these processes is accompanied with ten catalysts or prompts that are meant to assist pupils. Inspiring a flood of high-quality, varied ideas and enhancing one's innate capacity for creative problem-solving are two of the many benefits of DO IT. Incubation (subconscious thought) and research procedures (learning about previous attempts) are tools that students can use when they have the opportunity.

50. Random Input (Rosenthal et. al., 1977, Bono, 1995)

When addressing problems, using random input, a form of lateral thinking, might help you come up with new ideas or other points of view. It helps one see things from different angles, encourages bold new ideas, and lets one break free of limiting thought habits.

51. Decision Tree (Zhao et. al., 2024)

Many undergraduate programs in public health, business economics, and health economics introduce students to decision trees as a visual and analytical aid for making better decisions. They are easy to grasp and apply, useful even when no hard data is available, and may be mixed and matched with other decision-making methods.

Conclusion

Being creative is a natural human talent that we should all strive to develop. A concept you have can become something tangible, giving your life new meaning and fulfilment. Without creativity, relationships would deteriorate, advancements would stop, and life would become monotonous.

We require innovative answers to the challenging issues we currently confront. Having knowledge of and applying the methods for enhancing creativity will yield outstanding outcomes and creative thoughts.

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