Brainstorming

Generating Many Radical, Creative Ideas

How often have you used brainstorming to solve a problem? Chances are, you've used it at least once, even if you didn't realize it.

For decades, people have used brainstorming to generate ideas, and to come up with creative solutions to problems. However, you need to use brainstorming correctly for it to be fully effective.

In this article, we'll look at brainstorming: what it is, why it's useful, and how to get the best from it.

What is Brainstorming?

Madison Avenue advertising executive Alex Osborn developed the original approach to brainstorming and published it in his 1953 book, "Applied Imagination." Since then, researchers have made many improvements to his original technique.

The approach described here takes this **research** into account, so it's subtly different from Osborn's approach.

Brainstorming combines a relaxed, informal approach to problem solving with lateral thinking. It encourages people to come up with thoughts and ideas that can, at first, seem a bit crazy. Some of these ideas can be crafted into original, creative solutions to a problem, while others can spark even more ideas. This helps to get people unstuck by "jolting" them out of their normal ways of thinking.

Therefore, during brainstorming sessions, people should avoid criticizing or rewarding ideas. You're trying to open up possibilities and break down incorrect assumptions about the problem's limits. Judgment and analysis at this stage stunts idea generation and limit creativity.

Evaluate ideas at the end of the brainstorming session – this is the time to explore solutions further, using conventional approaches.

Why Use Brainstorming?

Conventional group problem solving can often be undermined by **unhelpful group behavior**. And while it's important to start with a **structured**, **analytical process** when solving problems, this can lead a group to develop limited and unimaginative ideas.

By contrast, brainstorming provides a free and open environment that encourages everyone to participate. Quirky ideas are welcomed and built upon, and all participants are encouraged to contribute fully, helping them develop a rich array of creative solutions.

When used during problem solving, brainstorming brings team members' diverse experience into play. It increases the richness of ideas explored, which means that you can often find better solutions to the problems that you face.

It can also help you get buy-in from team members for the solution chosen – after all, they're likely to be more committed to an approach if they were involved in developing it. What's more, because brainstorming is fun, it helps team members bond, as they solve problems in a positive, rewarding environment.

While brainstorming can be effective, it's important to approach it with an open mind and a spirit of non-judgment. If you don't do this, people "clam up," the number and quality of ideas plummets, and morale can suffer.

Individual Brainstorming

While group brainstorming is often more effective at generating ideas than normal group problem solving, several **studies** have shown that individual brainstorming produces more – and often better – ideas than group brainstorming.

This can occur because groups aren't always strict in following the rules of brainstorming, and bad behaviors creep in. Mostly, though, this happens because people pay so much attention to other people that they don't generate ideas of their own – or they forget these ideas while they wait for their turn to speak. This is called "blocking."

When you brainstorm on your own, you don't have to worry about other people's egos or opinions, and you can be freer and more creative. For example, you might find that an idea you'd hesitate to bring up in a group develops into something special when you explore it on your own.

However, you may not develop ideas as fully when you brainstorm on your own, because you don't have the wider experience of other group members to draw on.

Tip:

To get the most out of your individual brainstorming session, choose a comfortable place to sit and think. Minimize **distractions** so that you can focus on the problem at hand, and consider using **Mind Maps** to arrange and develop ideas.

Individual brainstorming is most effective when you need to solve a simple problem, generate a list of ideas, or focus on a broad issue. Group brainstorming is often more effective for solving complex problems.

Group Brainstorming

With group brainstorming, you can take advantage of the full experience and creativity of all team members. When one member gets stuck with an idea, another member's creativity and experience can take the idea to the next stage. You can develop ideas in greater depth with group brainstorming than you can with individual brainstorming.

Another advantage of group brainstorming is that it helps everyone feel that they've contributed to the solution, and it reminds people that others have creative ideas to offer. Brainstorming is also fun, so it can be great for team building!

Group brainstorming can be risky for individuals. Unusual suggestions may appear to lack value at first sight – this is where you need to chair sessions tightly, so that the group doesn't crush these ideas and stifle creativity.

Where possible, brainstorming participants should come from a wide range of disciplines. This cross-section of experience can make the session more creative. However, don't make the group too big: as with other types of teamwork, groups of five to seven people are usually most effective.

How to Use the Tool

You often get the best results by combining individual and group brainstorming, and by managing the process according to the "rules" below. By doing this, you can get people to focus on the issue without interruption, you maximize the number of ideas that you can generate, and you get that great feeling of team bonding that comes with a well-run brainstorming session!

To run a group brainstorming session effectively, follow these steps.

Step 1: Prepare the Group

First, set up a **comfortable meeting environment** for the session. Make sure that the room is well-lit and that you have the tools, resources, and refreshments that you need.

How much information or preparation does your team need in order to brainstorm solutions to your problem? Remember that prep is important, but too much can limit – or even destroy – the freewheeling nature of a brainstorming session.

Consider who will attend the meeting. A room full of like-minded people won't generate as many creative ideas as a diverse group, so try to include people from a wide range of disciplines, and include people who have a variety of different thinking styles.

When everyone is gathered, appoint one person to record the ideas that come from the session. This person shouldn't necessarily be the team manager – it's hard to record and contribute at the same time. Post notes where everyone can see them, such as on flip charts or whiteboards; or use a computer with a data projector.

If people aren't used to working together, consider using an appropriate warm-up exercise, or an icebreaker.

Step 2: Present the Problem

Clearly define the problem that you want to solve, and lay out any criteria that you must meet. Make it clear that that the meeting's objective is to generate as many ideas as possible.

Give people plenty of quiet time at the start of the session to write down as many of their own ideas as they can. Then, ask them to share their ideas, while giving everyone a fair opportunity to contribute.

Step 3: Guide the Discussion

Once everyone has shared their ideas, start a group discussion to develop other people's ideas, and use them to create new ideas. Building on others' ideas is one of the most valuable aspects of group brainstorming.

Encourage everyone to contribute and to develop ideas, including the quietest people, and discourage anyone from criticizing ideas.

As the group facilitator, you should share ideas if you have them, but spend your time and energy supporting your team and guiding the discussion. Stick to one conversation at a time, and refocus the group if people become sidetracked.

Although you're guiding the discussion, remember to let everyone have fun while brainstorming. Welcome creativity, and encourage your team to come up with as many ideas as possible, regardless of whether they're practical or impractical. Use thought experiments such as **Provocation** or **Random Input** to generate some unexpected ideas.

Don't follow one train of thought for too long. Make sure that you generate a good number of different ideas, and explore individual ideas in detail. If a team member needs to "tune out" to explore an idea alone, allow them the freedom to do this.

Also, if the brainstorming session is lengthy, take plenty of breaks so that people can continue to concentrate.

Taking Your Brainstorming Further

If you're not getting enough good quality ideas, try using the approaches below to increase the number of ideas that you generate:

• The Stepladder Technique — This improves the contribution of quieter group members by introducing one person at a time.

- Brainwriting This is a written approach that you can use to encourage all individuals to generate and develop ideas.
- Online Brainstorming (also known as Brain-netting) An electronic method of brainstorming, this uses a document stored on a central server, or on a Cloud-based system.
- Crawford's Slip Writing Approach You can use this approach to get plenty of ideas from all participants, and to get a view of each idea's popularity.

These techniques help you in specific brainstorming situations:

- Reverse Brainstorming This is used to improve a product or service.
- Starbursting Starbursting helps you develop questions that you need to ask to evaluate a proposal.
- Charette Procedure This helps you brainstorm with large groups of people. (Conventional brainstorming becomes increasingly ineffective when more than 10 or 12 people are involved.)
- Round-Robin Brainstorming You can use this approach to get people to contribute ideas without being influenced by others.
- Rolestorming This technique encourages group members to take on other people's identities while brainstorming, thereby reducing their inhibitions.

The Next Step - Taking Action

After your individual or group brainstorming session, you'll have a lot of ideas. Although it might seem hard to sort through these ideas to find the best ones, analyzing these ideas is an important next step, and you can use several tools to do this.

Use **Affinity Diagrams** to organize ideas and find common themes.

Decision Matrix Analysis and **Paired Comparison Analysis** will help you choose between different options. You can also use the **Six Thinking Hats** technique to look at ideas from different perspectives; and **Multi-Voting** can help you choose between options as a team, particularly where the differences between options are quite subjective.

Key Points

When managed well, brainstorming can help you generate radical solutions to problems. Brainstorming can also encourage people to commit to solutions, because they have provided input and played a role in developing them.

The best approach to brainstorming combines individual and group brainstorming. During the brainstorming process, there should be no criticism of ideas, and creativity should be encouraged.