

BRAIN STORMING AND LEARNING**Dr. (Miss) Nidhi Darbari**

M.A., M.Ed., Ph.D. (Pol.Sc.), Ph.D. (Edu.) NET (Edu.)

Abstract: “Good ideas start with Brainstorming , Great ideas start with coffee”

Brainstorming is an activity used to generate ideas in small groups. The purpose is to generate as many ideas as possible within a specified time-period. These ideas are not evaluated until the end and a wide range of ideas is often produced. Each idea produced does not need to be usable. Instead, initial ideas can be viewed as a starting point for more workable ideas. The principle of brainstorming is that you need lots of ideas to get good ideas. As students get actively involved, the sessions aid the process of learning and improve academic performance. It can be used for solving a specific problem, answering a question, introducing a new subject, raising interest, and surveying knowledge and attitudes. The present paper aims to tell about brainstorming and learning.

Key Words: Brainstorming, Mind Mapping, Gap Filling, Drivers Analysis**Introduction“**

Brainstorming is the nexus of ideas.” – Asa Don Brown

Brainstorming is an activity used to generate ideas in small groups. The purpose is to generate as many ideas as possible within a specified time-period. These ideas are not evaluated until the end and a wide range of ideas is often produced. Each idea produced does not need to be usable. Instead, initial ideas can be viewed as a starting point for more workable ideas. The principle of brainstorming is that you need lots of ideas to get good ideas. The participants shout out ideas as they occur to them and then build on the ideas raised by others. All the ideas are noted down and are not criticized. Only when the brainstorming session is over are the ideas evaluated. The term brainstorming was coined by Alex Faickney Osburn (1888-1966) in his book “Your Creative power” published in 1948. Brain storming is fun, it encourages creativity and discourages criticism during the idea finding phase as the evaluation of ideas is separated from the creation and ideas by one group member are used by other group to come up with more ideas(Associations). Osburn call this “Contagion” and “ Chain Reaction”.

We can use brainstorming to solve all kinds of problems education business, public administration, military, family and personal. For Brain storming- A specific problem as a question, a mixed group between 5 to 10 people men and women, experts and non experts and a leader who ensures that the basic rules are followed are necessities.

Four Basic Rules(As Described By Osburn)

1. No Criticism is allowed during Brainstorming(Evaluation of Ideas after the Brainstorming.)
2. Quantity is important. The more ideas the better.(Don't worry about speaking out only “good ideas)
3. Wilderness is good. Crazy ideas are welcome.(Many times the craziest ideas turn out to be the best ones)
4. Combining other ideas and taking another persons ideas a step further or using them for yet another ideas is good.

A Brainstorming session lasts between 30 minutes and 1 hour. After the meeting the list of ideas is copied and distributed to all group members.

Many people forget the key to brainstorming is quantity, not quality.

4 Steps To Successful Brainstorming: The four steps to effective brainstorming:

1. Lay out the problem you want to solve.
2. Identify the objectives of a possible solution.
3. Try to generate solutions individually.
4. Once you have gotten clear on your problems, your objectives and your personal solutions to the problems, work as a group.

Brainstorming Techniques: Basic brainstorming is not complex—there are techniques for ensuring success. More than one technique can be used in a single brainstorming session.

1. Mind Mapping: Mind mapping is a visual tool for enhancing the brainstorming process. In mind mapping, a picture of the relationships among and between ideas is drawn. Starting by writing down the goal or challenge, the participants are asked to think of related issues. Layer by layer, content to map is added so one can visually see how, a problem is contributing to issues.

2. Reverse Brainstorming: Ordinary brainstorming asks participants to solve problems. Reverse brainstorming asks participants to come up with great ways to cause a problem. Start with the problem and ask “how could we cause this?” Once a list of great ways to create problems is ready, one can start solving them.

3. Gap Filling: Start with a statement of where you are. Then write a statement of where you’d like to be. How can you fill in the gap to get to your goal? The participants will respond with a wide range of answers from the general to the particular. Collect them all, and then organize them to develop a vision for action.

4. Drivers Analysis: Work with the group to discover the drivers behind the problem in hand. What’s driving teacher loyalty down? What’s driving the competition? What’s driving a trend toward bad results of students? As you uncover the drivers, you begin to catch a glimpse of possible solutions.

5. SWOT Analysis: SWOT ANALYSIS identifies organization strengths, weaknesses, opportunities and threats. In brainstorming, it’s used to stimulate collaborative analysis. What

are our real strengths? Do we have weaknesses that we rarely discuss? New ideas can come out of this tried-and-true technique.

6. The Five Whys: The Five Whys can also be effective for getting thought processes moving forward. Simply start with a problem and ask “why is this happening?” Once you have some answers, ask “why does this happen?” Continue the process five times (or more), digging deeper each time until the root of the issue is discovered. Dig into the details of this process.

7. Star bursting: Create a six pointed star. At the center of the star, write the challenge or opportunity. At each point of the star, write one of the following words: who, what, where, when, why, and how. Use these words to generate questions. Use the questions to generate discussion. This form of brainstorming focuses on forming questions rather than answers.

8. Brain-Netting (Online Brainstorming): Brain netting involves brainstorming on the Internet. This requires someone to set up a system whereby individuals can share their ideas privately, but then collaborate publicly. There are software companies that specialize in just such types of systems, like [Slack](#) or [Google Docs](#).

9. Brain-writing (or Slip Writing): The brain writing process involves having each participant anonymously write down ideas on index cards. The ideas can then be randomly shared with other participants who add to or critique the ideas. This approach is also called “Crawford Slip Writing,” as the basic concept was invented in the 1920’s by a professor named Crawford.

10. Collaborative Brain writing: Write your question or concern on a large piece of paper, and post it in a public place. Ask team members to write or post their ideas when they are able, over the course of a week. Collate ideas on your own or with your group’s involvement.

11. Role Storming: Ask your participants to imagine themselves in the role of a person whose experience relates to your brainstorming goal (a client, upper management, a service

provider). Act out a scene, with participants pretending to take the other's point of view.

12. Reverse Thinking: This creative approach asks, "what would someone else do in our situation?" Then imagine doing the opposite. Would it work? Why or why not?

13. Figure Storming: Choose a figure from history or fiction with whom everyone is familiar—for example, what would your boss, a famous celebrity or Modiji do to handle the situation.

14. Step Ladder Brainstorming: Developed in 1992, this style of brainstorming encourages every member in the team to contribute individually before being influenced by everyone else. Start by sharing the brainstorming challenge with everyone in the room. Then send everyone out of the room to think about the challenge—except two people. Allow the two people in the room to come up with ideas for a short period of time, and then allow just one more person to enter the room. Ask the new person to share their ideas with the first two before discussing the ideas already generated. After a few minutes ask another person to come in, and then another. In the long run, everyone will be back in the room—and everyone will have had a chance to share his or her ideas with colleagues.

15. Round Robin Brainstorming: A "round robin" is a game in which everyone gets a chance to participate. This method begins by having the team gather in a circle. Once the topic is shared, go around the circle one-by-one and have each person offer an idea until everyone has had their turn. A facilitator records each idea so they can be discussed once the sharing is over. It's very important to not evaluate any ideas until everyone has the opportunity to share and allow everyone to contribute. Treat each idea with equal weight and discourage people from saying "X already mentioned my idea." If this happen, say you'll return to them at the end so they have time to think of something new.

16. Rapid Ideation: This simple technique starts by asking the individuals in the group to write down as many ideas as they can in a given period of time. Then either have them share the ideas aloud or collect responses. Certain ideas will pop up over and over again; in some cases these are the obvious ideas, but in some cases they may provide some revelations. Sometimes, time limits can help generate ideas quickly, because there is no time to filter or over think each one.

17. Trigger Storming: This variant on the round robin approach starts with a "trigger" to help people come up with thoughts and ideas. Possible triggers include open ended sentences or provocative statements. For example, "student issues always seem to come up when _____," or "The best way to solve students problems is to pass the problem along to someone else."

18. Charrette: Imagine a brainstorming session in which 40 people from eight different departments are all struggling to come up with viable ideas. The process is time consuming, boring, and unfruitful. The Charrette method breaks up the problem into smaller chunks, with small groups discussing each element of the problem for a set period of time. Once each group has discussed one issue, their ideas are passed on to the next group who builds on them. By the end of the Charrette, each idea may have been discussed five or six times—and the ideas discussed have been refined.

19. "What If" Brainstorming: What if this problem came up 100 years ago? How would it be solved? What if Superman were facing this problem? How would he manage it? What if the problem were 100 times worse—or much less serious than it really is? What would we do? These are all different types of "what if" scenarios that can spur radically creative thinking.

Brainstorming Encourages Better Learning: Some learners are more successful than others.

1. Learners Organize Information: Learners try to organize their knowledge. As teachers, we

can try to facilitate this organization by using suitable warm-up activities. A warm-up activity can remind our students of existing knowledge and direct their minds towards ideas that they will meet in the main activity. In this way, it provides a link between new and existing knowledge.

However, each learner has a different store of existing knowledge organized in a unique way. A textbook or teacher presentation can never use this knowledge to its best potential. In many warm-up activities, the teacher and students can be frustrated because the organization of language in the warm-up activity is different from the organization in the learners minds. This mismatch is a block to good learning.

2. Learners Find Their Own Way and Take Charge of Their Own Learning: Students who do not take charge of their own learning are unable to take full advantage of learning opportunities. Many teachers find that lack of self-initiative is usually more of a problem than lack of ability in class.

3. Learners Make Intelligent Guesses: The learner makes intelligent guesses. Because of nervousness or fear of teacher correction, many students are afraid unless they are sure that it is totally correct. This stops them making intelligent guesses and slows learning. Brainstorming can help students to learn to take risks. There are no 'right' or 'wrong' answers in brainstorming and no danger of teacher correction. By carrying out a simple brainstorming warm-up, students can obtain a sense of competence and feel more confident in making intelligent guesses.

4. Learners Use Contextual Cues to Help Them in Comprehension: The good learner uses the context of language to help in comprehension. Brainstorming allows the students to create a context for the subsequent speaking task. Relevant existing knowledge (content schema) can be called up from memory and can provide a context which supports comprehension and production in the subsequent speaking task.

Conclusion: Brainstorming can help our students to become better learners, but equally importantly, students will benefit just by working in groups. They will learn language from each other and by interacting together they will become better communicators.

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