

## Tools & Techniques for Creativity & Innovation

### Brainstorming

Brainstorming is a group creativity technique designed to generate a large number of ideas for the solution of a problem. The method was popularized in a book called *Applied Imagination* by Alex Osborn in 1953. Osborn asserts that groups can double their creative output with brainstorming. Indeed, traditional brainstorming can produce valuable ideas and other benefits, such as boosting morale and improving team work.

There are four basic rules in brainstorming. These are intended to reduce social inhibitions among group members, stimulate idea generation, and increase the creativity of the group:

**Focus on quantity:** This rule is about facilitating problem solving through the maxim *quantity breeds quality*. The assumption is that the greater the number of ideas generated, the greater the chance of producing a radical and effective solution.

**Withhold criticism:** In brainstorming, criticism of ideas generated should be withheld. Instead, participants should focus on extending or adding to ideas, reserving criticism for a later 'critical stage' of the process. By suspending judgment, participants will feel free to generate unusual or 'wacky' ideas.

**Welcome unusual ideas:** To get a good, long list of ideas, unusual ideas are welcomed. They can be generated by looking from new perspectives and suspending assumptions.

**Combine and improve ideas:** Good ideas may be combined to form a single better good idea. It is believed by a process of association more ideas can be stimulated.

### The Brainstorming Process

#### Set the problem

Before commencing with a brainstorming session, it is critical to define the problem. The problem must be clear and ideally captured in a specific question such as "What can be done to solve traffic congestion in the UK?" If the problem is too broad, it should be broken down into smaller components.

When possible, it is useful to send an informational invite to the participants, containing the session name, problem, time, date, and place. The problem should be described in the form of a question, and some example ideas given. If this is sent well in advance, it enables the participants to start to 'incubate' deeper thinking than by springing the issue on them at the session.

## Select participants

A group of 10 or less is generally productive with one person acting as facilitator and one person capturing the ideas. Many variations are possible but the following composition is suggested:

- Core members of the team.
- Guests from outside the project, with some connection to the problem.
- Guests with no affinity to the problem can be beneficial in asking the 'nobby' questions – the things that others (experts) take for granted.

## Facilitating a brainstorming session

The facilitator leads the brainstorming session, ensuring that ground rules are followed. The steps in a typical session are:

- A warm-up session, to expose participants to the criticism-free environment. A simple problem is brainstormed, for example '*What should we do this year for the Christmas function?*'
- The facilitator presents the problem and gives a further explanation if needed.
- The facilitator asks the brainstorming group for their ideas.
- If no ideas are forthcoming, the facilitator suggests an idea.
- All participants present their ideas, and the idea collector records them.
- To ensure clarity, participants may elaborate on their ideas.
- When time is up, the facilitator organizes the ideas based on the goal and encourages discussion.
- Ideas are categorized.
- The whole list is reviewed to ensure that everyone understands the ideas.
- Duplicate ideas and obviously infeasible solutions are removed.

## Other considerations for the facilitation process

- The idea collector could number the ideas, so that the facilitator can use the number to encourage an idea generation goal, for example: '*We have 23 ideas now, let's get it to 30!*'
- The idea collector should repeat the idea in the words he or she has written, to confirm that it expresses the meaning intended.
- When a number of participants are having ideas, to encourage elaboration, the idea with the most associated ideas should have priority.
- During a brainstorming session, higher level managers and other superiors may be discouraged from attending, since their presence could reduce the effect of the four basic rules, especially the generation of unusual ideas.