**Brainstorming**

**Objective:** To generate diverse ideas, solve a specific problem, or explore potential opportunities in a collaborative environment by encouraging open, creative thinking among participants.

**Detailed description:** Brainstorming is a group ideation technique designed to produce a wide range of ideas in a non-judgmental, free-flowing setting. The process fosters creativity by suspending critical evaluation, allowing participants to think expansively. Later, ideas are refined and analyzed to identify the most viable options.

**Steps:**

1. **Define objective:** Define the objective of the brainstorming session clearly, ensuring all participants understand the specific problem or goal they are working toward.
2. **Assemble teams and establish rules:** Assemble a diverse group of 5–10 participants, establish ground rules that foster open, and judgment-free contributions.
3. **Set-up environment and arrange materials:** Set up a comfortable, collaborative environment with all necessary materials like whiteboards, sticky notes, or digital tools, and share relevant background information to provide context.
4. **Provide problem statement:** Open with a brief warm-up activity to spark creativity, then present the problem statement and reframe it as a "How might we..." question to encourage open-ended thinking.
5. **Generate ideas:** Conduct the idea generation phase, allowing participants to share as many ideas as possible without evaluating or critiquing any contributions.
6. **Document ideas:** Capture all ideas visibly for the group to see, using tools like whiteboards or digital platforms, and ensure everyone’s input is documented to maintain inclusivity.
7. **Prioritize ideas:** Facilitate a quick evaluation to prioritize the most promising ideas based on criteria like feasibility, impact, or alignment with the objective.
8. **Refine ideas:** Develop and refine the top ideas collaboratively by expanding on details, addressing challenges, and outlining potential implementation steps.
9. **Summarize and share:** Summarize the session’s results, assign next steps with clear responsibilities and timelines, and document the outcomes for sharing with relevant stakeholders.

**Input:** A problem statement

**Output:** Solutions/ideas

**Concise example:** An electric vehicle manufacturer faced a critical challenge: differentiating its new EV in a crowded market while appealing to eco-conscious consumers. The product team, consisting of engineers, marketers, and designers, decided to use **brainstorming** for its ability to generate diverse ideas rapidly. During the session, the facilitator encouraged participants to focus on unique features that aligned with the brand's sustainability goals. Ideas like "solar roof panels," "recyclable interiors," and "personalized eco-driving feedback via an app" emerged. These were grouped and prioritized based on feasibility and impact. This method's open and judgment-free nature ensured that every team member's voice was heard, fostering creativity and collaboration. The result was a feature-packed EV prototype that stood out in the market, leading to a 25% increase in pre-orders compared to previous models.

**Detailed example:**

**Step 1:** Define the objective.

* The objective is to generate innovative ideas for *reducing single-use plastic waste in urban areas*.

**Step 2:** Assemble the team, and set ground rules.

* A team of 8 participants is formed, including environmentalists, urban planners, product designers, and consumers. The facilitator establishes rules such as no criticism during idea sharing, encourage wild ideas, and actively build on others' suggestions.

**Step 3:** Set up a collaborative environment and provide materials.

* The session takes place in a creative co-working space with a large whiteboard, sticky notes, markers, and posters showing statistics on plastic waste and its impact on the environment.

**Step 4:** Provide a problem as a "How might we..." question.

* The facilitator now presents the problem: "Plastic waste is clogging urban areas." The question is framed as: *“How might we design urban solutions to minimize single-use plastic waste effectively?”*

**Step 5:** Conduct the idea generation phase.

* Participants brainstorm for 20 minutes, to explore ideas like replacing plastic with edible materials, combining recycling bins with vending machines, and modifying urban policies to incentivize alternatives.

**Step 6:** Capture all ideas visibly.

* Ideas are written on sticky notes and placed on a large whiteboard, creating a colorful, visual representation of all contributions.

**Step 7:** Prioritize promising ideas.

* Participants vote and prioritize three ideas: edible food packaging, recycling kiosks with incentives, and community-driven awareness events.

**Step 8:** Develop and refine top ideas.

* The team refines the edible packaging idea by identifying materials (e.g., algae-based wraps) and exploring pilot test locations in urban food markets.

**Step 9:** Summarize the session and share.

* The facilitator recaps the session, highlighting the three selected ideas. These ideas are then shared with the stakeholders.

**Benefits:**

* Simple and quick
* Large number of ideas can be generated in less time
* Ideas from diverse perspectives

**Limitations:**

* Risk of groupthink (participants conforming to the dominant idea/opinion)
* Unequal participation
* Focused on idea quantity than quality

**Things to keep in mind:**

* Ensure everyone has equal opportunity to contribute, avoiding domination by one individual.
* Aim for a large pool of ideas without evaluating them initially.
* Hold back judgment until the ideation phase is complete.
* Allocate specific time slots for idea generation, and discussion to maintain momentum.

**Required resources:**

* Stationery/ tools: Pen/markers, sheets of paper/post-its, and white/black board
* Software: Miro, MindMeister
* Budget: Low
* No. of participants: 4-8 participants per group
* Time to execute: 20-40 mins

**Design phase:** Ideation

**Suitable domain:** UX design, marketing, (any kind of) Product design (fashion, apparel, machine, software etc.), any problem solving

**Related method:**

* Similar method/ variants: Gallery method, Reverse brainstorming, Yes… And, and SCAMPER
* Combinable with: Affinity Mapping (for clustering and refining ideas), Dot Voting (for selecting the best ideas).

**Level of difficulty**: Easy

**Method specific skill(s):** None

**Underlying assumptions:**

* Collaborative thinking leads to better ideas (people are more creative in groups)
* Creativity flourishes in a judgment-free environment
* Diverse input leads to richer outcomes
* There are no “bad” ideas, all ideas have potential value

**Literature:**

Books:

* Schlicksupp, H .: *Creative brainstorming in the company - methods and models*, de Gruyter Verlag, Berlin, 1977
* Schlicksupp, H. : *Innovation, creativity and brainstorming*, Vogel Verlag, Würzburg, 1989

Websites:

* <http://www.meport.net/index.php?content=./lo_met_mngt/method_body_short_info.php&methodId=f9ef8f64303d899605e1ba2335729352&displayContext=unfilteredAccess&displayMode=show&versionId=935b1453c574ee37eefd3048c1c77b2b&methodId=f9ef8f64303d899605e1ba2335729352&versionId=935b1453c574ee37eefd3048c1c77b2b>
* <https://methodos.ik.ing.tu-bs.de/methode/Brainstorming.html>
* <http://designmethod.korea.ac.kr/design-method/brainstorming/>