Brainstorming, Idea Generation & Capture

General brainstorming steps for divergent thinking
(*based on Beebe & Masterson pp. 311-321*)

1. Ensure that **everyone understands the definition** of the problem
2. Set a **clear time limit** for idea generation (<u>at least</u> 10 minutes)
3. **Put aside all judgements** and evaluations
   a. Acquire a 'try anything' attitude.
   b. Avoid criticism.
   c. All ideas are thought-starters.
   d. Today's criticism may kill tomorrow's idea.
4. Think of as **many possible solutions** to the problem
   a. The wilder idea the better; it's easier to tame ideas down than to think them up.
   b. Someone's wild idea may trigger a viable solution from another person.
5. **Piggyback** off someone else's ideas (build on the ideas of others)
6. **Record all ideas** mentioned
7. Evaluate ideas when the **time allotted** for divergent thinking has **elapsed**
   a. Approach each idea positively.
   b. Try to make ideas workable.

Alternative techniques:

Nominal-group technique: Members write ideas before sharing
1. Start Solo; write down alternative possible solutions individually
2. Report back in rotation; facilitator notes each member's idea on a chart, asking for, and recording number of, duplicates; repeat until all ideas recorded
3. Discuss and clarify each idea, merge where appropriate
4. Individually rank alternatives
5. Discuss the results of rankings

Affinity technique: Ideas are generated as a group, then clustered to find commonalities
1. Use Post-its to individually write down ideas
2. Sort through and organize ideas that have an "affinity" on a board or wall
3. Label each "affinity" category

Brain-writing: Ideas are generated silently, simultaneously
1. Sit in a circle and provide each group member a sheet of paper
2. Write down one idea on a sheet individually
3. Pass the sheet to your neighbor
4. Add an idea to the sheet that was passed to you (SCAMPER or free associate)
5. Continue circulating sheets and adding one idea for the allotted time
6. Report back and note the group's solutions

Electronic brain-writing: rather than paper, use a *simultaneously accessible, multi-editor, cloud-based document* such as Google Docs/Sheets/Drawings to work together.

Mindmapping: Ideating, documenting and categorizing all at once.
1. Work together around a large sheet of paper.
2. Draw or write ideas and sketches, adjacent to items that inspired them, or joined to them by lines.

Long-term Brainstorm: Establish a brainstorming bulletin board or whiteboard to add to over an extended time period (days or weeks).

Role-storming: Role play and interact as your stakeholders, to discover epiphanies and pain-points.

Reverse Brainstorm: Tease out important ways of making something better by asking "How might we make it worse?"

If even a few useful ideas are generated by the group, the session has been successful!

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Best Practices for Better Brainstorming
(inspired by info from IDEO)

Start Solo: It's good to think your own thoughts before hearing those of others. When you each think first, you maximize your group's diversity. And when you all share after, you multiply it.

Defer Judgement: Nothing squashes creativity like negativity. There will be a time to be critical about all the ideas your group generates. Now is not that time.

One Conversation at a Time: When you get excited, it's easy for everyone to talk at once. That means there's twice as many ideas, but half as many listeners. Make sure you hear everyone.

Stay Focused: In a fun, wide-ranging, "anything goes" brainstorming session, it's easy to get off-topic. Your ideas may cover a huge area, but keep facing the centre of the circle.

Build on the Ideas of Others: Adding to someone else's idea reinforces its value and takes it in additional directions. It also helps make certain that everyone is being heard, since you can't build on an idea you have listened to.

Be Visual: Help people see your ideas. *It's not art.* It's drawing as a form of communication. ☞ □ ⌁ □

Encourage Wild Ideas: It's easier to tame an idea than it is to create one. Adopt an attitude of "there are no bad ideas." Sometimes a wild idea is a springboard to something great.

Go for Quantity: If you *want* to have the best ideas, you'll *need* to have some good, some better, and *some bad* ones. Quantity produces Quality.

Searching? Stuck? SCAMPER!
(ideas from Eberle and Osborn)

Use SCAMPER as a tool to challenge thinking, come up with new ideas, and find new directions.

Substitute:
Replace one thing with another
Change the parts

Combine:
Add or put more things together

Adapt:
To meet other needs

Modify/Magnify/Minify:
Change the look/quality
Make a thing bigger, heavier, faster or more frequent
Make smaller, lighter, slower or less frequent

Put to other uses:
Use a thing in other ways

Eliminate:
Take away a characteristic, part or whole

Reverse/Rearrange:
Turn a thing around
Change to the opposite
Change the order of operations, pieces

Use a random-word/image to trigger new creative ideas (*Beebe & Masterson*, p. 321)
Flip open a book or magazine; how does what you see relate to the problem or idea you're exploring?

Common pitfalls to avoid:
- Not brainstorming for long enough (do not make the time limit too short!)
- Brainstorming for an indefinite period of time (set aside a definite amount of time)
- Leaving some group members unclear about what problem is to be solved by the brainstorm (be certain that each member understands the specific problem)
- Not following rules (make sure that all judgments and evaluations are put aside!)
- Ignoring less talkative members (try to draw less-talkative members into discussion)
- Collecting ideas from a group and never following up (tell the group what will happen with the ideas and suggestions generated)

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