Project Planning • Brainstorming

Brainstorming Primer

It is extremely difficult to get a diverse group of people to agree on many things. It becomes impossible if all members of the team want to have things their way. Below are general rules that apply to all team oriented problem solving situations. If the team would like to maintain good group dynamics, it is important that they spend a several minutes talking about these important rules.

Listening Tips For Your Team

- Listen; easy to say, hard to do. Listening is hard work– *work at it!*
- Never assume anything.
- Don't jump to conclusions. Listen to all opinions before you form your own.
- Focus on the problem; it is easy to get sidetracked.
- Be positive.
- If you aren't getting it, listen harder to your teammates.
- Ask questions.

Brainstorming Ideas
Students need to understand that there are no bad ideas. All ideas are to be treated with respect. Often, one idea will lead to another idea. What may seem "off the wall" to the group may stimulate an idea from someone else. Many people are shy and won't share their opinions, particularly if they feel they will be ridiculed.

Be Flexible
There is more than one way to solve any problem. Team members must be prepared to compromise, combine good ideas, listen to others opinions, and treat all suggestions fairly and with respect.

Consider Resources
All problem solvers have a limited set of resources. When problem solving, your two biggest resources are people and information. If you know someone with expertise in the area on which you are working, consult them. Put in time upfront, researching how others have solved similar problems; there is no reason to "reinvent the wheel." Time is the one resource that is in your control at the beginning of the problem, but becomes totally out of your control as the project moves along. There is a saying that "time waits for no one." That becomes extremely important when you have a fixed deadline.

Test Multiple Solutions
Students often select the first idea that comes to mind without thinking about other options. It is important for the team to take the time to look at several options if they want to come up with the best solution.

Be Positive
Do you see yourself as "part of the solution" or "part of the problem?" We all would like to see ourselves as part of the solution. Unfortunately it doesn't always work out the way that we would like and this can lead to unhappy teammates. It is imperative that you understand how important it is to be positive when you are working in teams.

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Things to Think About

Here are some useful starter questions to get your first brainstorming session going. Make sure to write down all ideas (even some that may seem unfeasible now may come in handy later) and listen to everyone who has something to say. There are no bad ideas in a brainstorming session. Make no judgments about the ideas offered.

- *What are we trying to accomplish?*

- *Has anyone done this sort of thing before? How?*

- *How do you think we should…?*

- *Is there another way to do this?*

- *What should be the next…?*

- *What skills and abilities do we have that would be useful?*

- *How can we use them?*

- *What can we improve?*

- *How can we change the criteria to fit our assets?*

- *How do you plan on…?*

- *How can we change to attack the problem?*

- *Can we use something else?*

- *What if we did the opposite?*

- *Is it time to leave it alone?*

- *What are the technical hurdles we must overcome to complete the task?*

- *How can we break this down into smaller tasks?*

- *How is our approach different from other approaches? Do we stand out?*

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Brainstorming Tips

Here are some useful tips that you may want to consider while you try to solve problems.

Accept all options
In the beginning of the brainstorming process, have the group write down as many ideas as possible without actually evaluating any of them. Often, ideas are dismissed early, before they have a chance to be discussed. Discussions may lead to other good ideas. Remember that one person's idea may stimulate another person to come up with another idea that may lead to a solution. Sometimes combining several ideas will lead to a solution.

Avoid distraction
Stay focused on the problem. Take yourself away from the television and phone.
Make sure to keep group members on task, as it is very easy to be distracted by friends.

Work in a new setting
For some people, working in a new setting is stimulating and may jump-start new ideas.

Ask experts
Your two biggest resources as a problem solver are people and information.
If you are trying to solve problems that are new to you, find people who are experts in the field & ask for their opinion.

Be positive
Ideas are more likely to evolve if everyone has a positive attitude about the outcome.
The words "I can't" never solved a problem.

Be confident
The team needs to feel confident that the problem can be solved.

Break problems into small parts
Sometimes solving small parts of the problem will lead to a solution to the larger problem.

Take a break
A short break from the problem can inspire new ideas. Starting fresh and mentally alert can lead to new ways to solve the problem. Also, changing environments and trying to view the problem in the context of the new environment can give inspiration.

Persist
Genius has been described as "1% inspiration and 99% perspiration."
Hard work and persistence are keys to finding solutions to difficult problems.