BRAINSTORMING

Brainstorming is a term which was coined to describe a very powerful method for getting groups to develop creative ideas. Not everyone who uses the term actually understands how to make the method work most effectively.

Flexibility and Fluency

One way researchers look at the creativity of ideas is by measuring fluency (how many ideas are generated per unit of time) and flexibility (how different those ideas are from what most people think up). The underlying assumption is that those with the greatest flexibility and fluency of thinking are the ones most likely to find new and better alternatives.

While the most effective creativity may occur when people with the right combination of knowledge push hard for insight into the real problem before seeking ideas for solutions, the flexibility and fluency of that interaction is critical.

An Environment

Alex Osborn was an advertising executive who noticed that junior people with interesting ideas were not saying them in the meetings. He realized that the usual meeting environment discouraged people from both flexibility and fluency.

The meeting environment he designed which encouraged flexibility and fluency was called brainstorming.

He realized that people kept silence because of their fear of the opinions and criticisms of others. So Osborn's first rule was to "defer judgment". Anyone who judged your idea should be criticized.

Notice that the rule is not to skip judgment, but to wait until later, then judge. In this way, ideas which are the seeds of solutions can be offered to the group and improved until their full potential is evident.

With Osborn's four basic rules, groups were able to work together and generate 50 to 500 ideas in five minutes. His groups were so productive that no secretary could keep up, so sessions were tape recorded and typed transcripts given to those attending for later evaluation.

ALEX OSBORN'S FOUR BASIC RULES:

1. *Criticism is ruled out*. Adverse judgment of ideas must be withheld until later.

2. *"Free wheeling" is welcomed*. The wilder the idea the better; it is easier to tame down than to think up.

3. *Quantity is Wanted*. The greater the number of ideas, the more the likelihood of useful ideas.

4. *Combination and improvement are sought.* Suggest how ideas of others can be turned into better ideas or how two or more ideas can be joined.

Applied Imagination, p156.

Building that Environment

The brainstorming environment is a relationship of honest and earned trust. Building that relationship among the participants is essential to brainstorming success.

One way to build that trust is to practice the methods on problems which do not trigger strong differences of opinion among the participants. Start being creative on less controversial problems. Exercise the skills and build the trust with nonsense problems, such as "Ways to improve a bed" or "Unusual uses for bricks" or "New Names for Sports Teams". As the people get comfortable with the process and each other, they can take on more stressful tasks.

Increasing Flexibility

Osborn found that it was not enough to free up the environment. Once people were more comfortable with brainstorming together, they could still run out of ideas or list ideas which were not all that different from established ideas.

One method was to use certain words that tended to stimulate new ideas. Over time he created a list of manipulative verbs which seem worth trying in almost any problem situation when things slow down.

THE " MANIPULATIVE VERBS"

- �z Magnify
- �z Minify
- �z Multiply
- �z Rearrange
- �z Reverse
- �z Combine
- �z Adapt
- ☐z Modify
- ☐z Substitute
- ☐z Put to other uses

Osborn reported other techniques for stimulating groups:

- ☐z **Forced Relationship:** ask what would happen if you combined two approaches. What if you combined a telephone with a wastebasket? Using a set of random triggers like objects in the room or words from the dictionary, find a way to combine them with the problem. One way to do this is to choose two numbers at random, and look for the ideas already listed next to those numbers on your list and put them together.

- ☐z **Attribute Listing**: list everything you notice about what you are considering. Color, texture, appearance, shapes, dynamics. Then look at what happens if you change an attribute. If it is red, what if it was white, or blue?

- ☐z **Morphological Analysis:** if you brainstorm alternatives to a number of attributes, then try the various combinations of these alternatives, great ideas sometimes appear or are triggered. A great many of the scripts for the old "Lone Ranger" television series were generated this way. There are only so many heroes, so many villains, so many conflicts, but there are a great many combinations of these factors. In a problem with six attributes, and ten alternatives for each attribute, there are a million different solutions!

Other Techniques

Lots of people have learned lots of tricks to make brainstorming more effective.

Some of the more useful include:

- ☐z **Write it all down!** Research has shown that the ideas that don't get written down are the most creative! An effort must be made to get every idea recorded and considered.

- ☐z **Intelligent Ignorance.** Expertise in an area can really slow down flexibility and fluency. Including someone who is bright but does not know what everybody else knows about the area can often find or trigger truly creative opportunities.

- ☐z **What's good about it?** It is often helpful to take the worst ideas, or the toughest part of the problem and ask the question "But what's good about it?' and creatively explore the possibilities.

- ☐z **Make Things Worse!** When a group is trying to make things better, it is good to loosen up their creativity by asking them to go the other way.

- ☐z **The Worst Idea!** A great exercise is to challenge a group to take the worst idea on the list and make it work in some fashion. About 20% of the time you get a worthwhile idea and most of the time you get some good team building laughter.

Have Fun!

Creativity and humor are practically identical. Whenever people loosen up the assumptions and categories enough to find creative ideas, they laugh a lot. If your people are not laughing during a brainstorming session, they are doing it wrong!