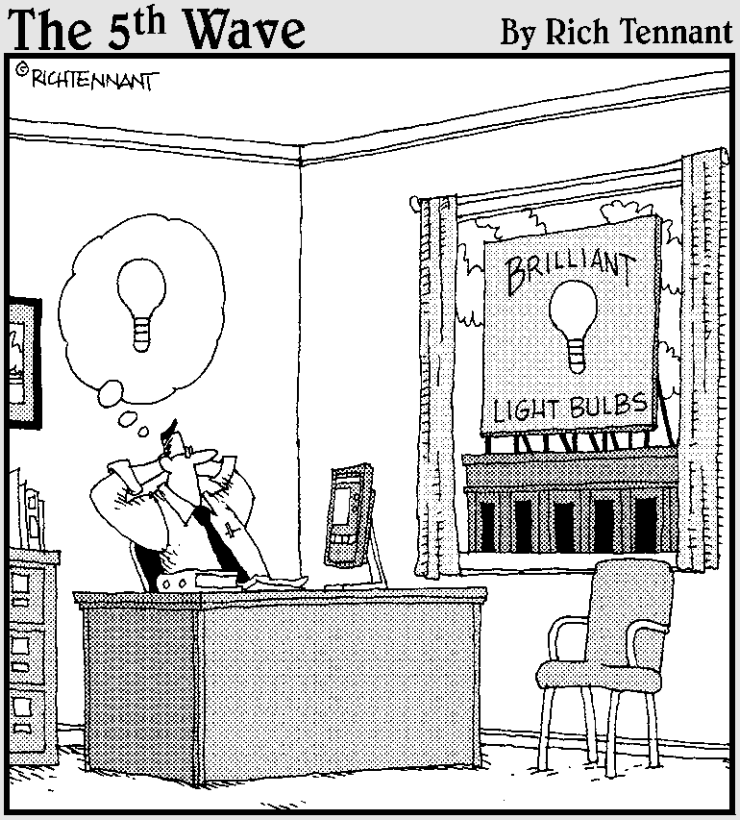
Part II

Stimulating Your Creative Side: Thinking in New and Different Ways



In this part . . .

There's always another way, and there's a limitless supply of ideas. Creativity is the key to inventions, improvements, solutions, breakthroughs, and brilliant suggestions, but when you really need a better idea, it's often hard to produce one. This part arms you with an incredible number of tools and techniques to generate great new ideas.

Brainstorming a list of possibilities is as simple as recognizing the need for ideas and committing a little time and scrap paper to the job. You can produce good ideas all by yourself or with a group or team. Or you can look around for good ideas that you can adapt to your needs, exciting new products you can purchase, or patents you can license. The world is full of great new ideas and inventions, so you don't necessarily have to invent something completely new.

Whether you invent your own or take advantage of someone else's great new ideas, it's important to recognize the power of a good idea. Companies and careers are built on the strength of good ideas. This part helps you generate some of your own!

Chapter 6

Getting Juices Flowing in Brainstorming Sessions

In This Chapter

- Tapping into the creative energy of groups
- Selecting the creative thinking team
- Getting ready to facilitate a creative retreat
- Leading or participating in a brainstorming session

Groups *can* be smarter than individuals, but unfortunately, they usually aren't. The typical group of people — on a subway platform, at a sports stadium, or in a meeting — has a herd mentality. Most people don't step up and contribute at all, and the few who do tend to be loud-mouthed and narrow-minded. You can't expect groups of people to solve challenging problems or generate clever insights. They often get into arguments, come up with foolish ideas, or make serious mistakes. Unsupervised groups aren't much use to the innovator.

However, groups offer two potential advantages to you in your quest for a breakthrough idea. First, they allow you to tap into a diversity of knowledge and experience. Second, they make it possible to take advantage of healthy *group dynamics* (the ways people interact socially in small groups). If you get people thinking and talking in an open, creative manner, they often surprise themselves and you with the breadth and depth of their creative thinking. A group of a half dozen to a dozen people can, if well managed, produce 100 plausible new product concepts in a two-day retreat, allowing you to select the strongest ideas from their list for further development and testing.

I like to push groups to produce at least 100 concepts. It seems impossible to them at the beginning of the session, but with the right group processes, ideas begin to flow and build on one another until everyone is surprised and excited by their creative productivity. The trick is to facilitate a productive group process. *Creative facilitation* is optimizing the creative output of a small, select group of people by managing the group's dynamics. This chapter shows you how to be an effective facilitator of creative sessions — a skill you can use in dozens of ways as you put group creativity to use.

Identifying Opportunities for Group Creativity

One experience with a poorly run creative session may have turned people off to the idea of group creativity, so you may bump into initial resistance. If so, don't let the naysayers get you down! Group creativity is a powerful force, and it can make fast work of problems like the following:

- Low staff morale
- A conflict needing resolution
- Losses or lack of profitability
- A need for new products
- A need for a fresh new ad campaign
- A need for a new or updated brand identity
- Inefficiencies or repeated errors in a work process
- A challenge filling a staff position
- A tough engineering or design problem
- A need to do more with less in the budget

This list of opportunities for group creativity may seem long, but if you were to ask a well-facilitated group to brainstorm more opportunities for group creativity, I'm sure they could. In fact, that's a great exercise. At your next meeting, why not give your staff the challenge of generating 50 topics that could benefit from a group creativity session? I'm quite confident that they will produce a strong list. When they do, ask them to come up with a way to prioritize the list. Then see what the top five priorities are. You may find this exercise alone is enough to kick-start momentum for innovation in your workplace. This section looks at a variety of additional ways to get group creativity going.

Calling for help with a problem

Problems focus attention. When a hospital has trouble filling its nursing positions, everyone worries about it. They ask questions such as "Will we have to raise salaries for nurses, and if so, how can we afford to do that?" A problem is a great opportunity to initiate group creativity. However, be warned! Problems produce closed-minded thinking, so if you want to take a creative approach, you have to reframe the problem. *Reframing* is changing the fundamental way people think about something.

In the example of a hospital that's having trouble filling its nursing positions, the common responses are framed negatively. People worry that the hospital will go over budget or that healthcare will deteriorate. They use words like *impossible* and *crisis,* which get everyone thinking pessimistically. To shift the frame toward a more optimistic, open approach to problem-solving, you need to follow a three-step process:

1. **Make the case for exploring fresh options.**

   Be positively assertive, not critical and negative. Say, "We're stuck with unpleasant options and don't see a good way to resolve the problem. I want to pull together a team that will try to generate some fresh thinking about what to do." Be careful to disassociate your proposal from anything else going on. Make it clear that you're not taking sides, and also emphasize that you don't want or need problem-solving authority. Your results will simply be food for thought. Let people know that while you hope to come up with a good solution, you aren't asking for an advance commitment to implement whatever you suggest.

2. **Get permission to convene a creative group.**

   If you're a manager or executive, you can simply invite people to a brainstorming session. If not, you need to get someone with authority to back your proposal. Pick someone you have a decent working relationship with (someone who trusts you to be productive and focused as the group's facilitator). Choose someone high enough in the organization to allow you to tap into multiple departments or functions to achieve a diverse group with a breadth of knowledge and perspectives. You may also use your network to reach out and draw in people from outside your workplace who can bring fresh ideas or unique knowledge. Ask them when and for how long you can get them to commit; then line your insiders up for an event that fits the outsiders' schedules. (If your group will discuss any confidential information, ask participants, especially outsiders, to sign nondisclosure agreements.)

3. **Pick people who will bring positive thinking to the problem.**

   Screening for attitude is important! As I discuss in Chapter 1, underlying attitude makes a world of difference. Exclude naysayers who obviously have a negative attitude or a bone to pick. They'll only work against you as you try to facilitate an open brainstorming session. Find whatever excuses you must, but be firm: Nobody with a negative attitude is allowed to attend! (The later section, "In or Out?: Issuing Invites to the Brainstorming Session," gives you more advice on making thoughtful selections.)

If you use this simple three-step process to call for creative help with a knotty problem, you'll get a group that's eager and able to explore the problem from fresh perspectives. Positive problem-solving groups are very powerful forces; they often produce fresh new ideas and options, and may generate the next big innovation for your organization.

Inviting questions for consideration

A great way to identify creative options is to ask people to pose questions in a brainstorming session and see what you get. If asking for questions doesn't give you good results, pose questions of your own to stimulate engagement. A question such as "What's the most important problem for us to work on right now?" can generate a variety of answers, but often, you find that a third or more of the answers address the same issue. When you've identified an issue that's on many people's minds, you can brainstorm for solutions.

You can also use open-ended, thought-provoking questions to get the group's creative juices flowing. Ask for input in the form of wish-we-had and wish-we-could ideas. Challenge everyone to share five "I wish we had . . ." and five "I wish we could . . ." sentences of their choice. Then pull together a group to sift through the resulting submissions, and select one from each category to work on in a brainstorming session.

Building on suggestions

A suggestion system can be used as input for creative groups. Start with suggestions offered by employees, either anonymously in a suggestion box or openly in response to a request for proposals. Instead of having management read the suggestions and pick the ones they like, assemble a group to brainstorm the suggestions. Try pulling suggestions at random (rather than filtering them based on merit), and challenge the group to find a way to make each suggestion work. Sometimes, the most naïve or impractical suggestions produce the greatest innovations when the group gets to work on them. Even a wildly impractical idea or suggestion can lead to ideas that may prove more practical.

In or Out?: Issuing Invites to the Brainstorming Session

Rounding up a good set of participants is one of the simplest and best ways to ensure an easy-to-facilitate creative group. Like a party, a creative group needs a good guest list. Put some thought into who might add fresh information or ideas, and look for ways to mix up the group with diverse people — including those who don't normally work together. You want to generate some *creative chemistry,* which arises when people with differing experiences, styles, and perspectives work intensely together.

This section helps you sort out your ideal group size and provides some additional criteria for deciding who should be in the group and who's best left on the sidelines.

Deciding how big to make the group

Your group should be no smaller than 5 (4 participants plus a facilitator) and probably no larger than 15. As you approach 20 people, facilitating the participatory process becomes more difficult, and your group will be characterized by more *social loafing* (lack of participation and mental laziness on the part of some members).

If you're a beginning facilitator, aim for a group of between six and eight, which gives you enough people to ensure a lively session but avoids the complexities of larger groups. Groups of ten or more require more active and skilled facilitation.

If you feel that your topic requires a larger group to include all the needed perspectives and experts, consider dividing the group in two and bringing in a second facilitator. Reserve adjoining rooms, and brief and debrief the group as a whole, but divide it for the actual brainstorming activities to ensure full participation by all members.

Excluding people who squash the creative spirit

Some people rain on every creative parade — people who often say things like "We already tried that," "That's impossible," or "We could never afford that," making it hard for others to be open-minded. Exclude closed-minded or negative thinkers. Also consider excluding anyone who, by virtue of high status or rank, might make others uncomfortable and unwilling to contribute. Finally, exclude people who've been around so long that they think they know it all. What they know is how things used to be, not how they could be in the future. You don't need negative baggage.

Be tough about excluding people who might ruin your event. It's far harder to shut them up when they're in your session and saying the wrong things than to exclude them from the get-go, so bite the bullet, and don't let them talk their way in. Be firm, impersonal, and polite — but mostly firm — in telling people who is and is *not* invited. It's your party: You're the facilitator, so you're in charge of the guest list. If others don't like it, too bad. They can facilitate their own sessions! (But they won't. The people you want to keep out are people who don't really believe in creative, open-minded discussion, so they'll never initiate a brainstorming session.)

Including people who contribute needed knowledge

Ignorance is bliss, as the old saying goes, and unfortunately, this saying often applies to brainstorming. A group that lacks in-depth understanding of a topic will come up with simplistic, impractical ideas that sound good only to people who don't know any better. Your group ought to include outsiders, not only for their fresh perspectives, but also for the reservoir of technical knowledge and experience they can give the group to draw upon. Just make sure to screen the experts for openness to new ideas so that you don't get experts who squash every suggestion.

Adding people who bring unique perspectives and styles

Group diversity is an essential part of good creative facilitation. Reach out as far as you can to draw a diverse group, including people from other organizations, cultures, and places. Also give thought to personality and style. Can you create a mix of artistic, free-thinking people with organized, logical ones? If so, creative sparks may fly when they start talking about their ideas. Group diversity can lead to *creative friction,* the inspirational tension that arises when people have competing perspectives. As the facilitator, your positive view toward diversity and the differing perspectives it offers will rub off on your group and help them achieve insight from creative friction.

Planning the Creative Process

The *creative process* consists of the specific activities you plan for your creative group. A very simple (but effective) group process is to assemble a group for a morning, challenge them with a problem or other creative goal, and have them work through a series of brainstorming activities. Collect the group's output by taking notes on large chart pads; then summarize it afterward in a neat report that you can e-mail or hand-deliver to the participants. Give them an opportunity to comment on or add more ideas to your draft report before you finalize it and distribute it beyond your group.

Many creative challenges can be overcome with a simple, one-session creative process. However, complex or especially difficult projects may require multiple meetings, often with team members conducting research between sessions. This section focuses on getting the timing right — figuring out how much time you need to allow to successfully work through the creative process.

Deciding how much creative distance you want to travel

Sometimes, you can't tell whether or not one meeting will do the trick until you see how far the group gets in its first session. However, you can often guess which projects are going to need multiple meetings based on the scope of the question, problem, or project. A project involving major obstacles or multistage design and problem-solving may require the group to cover more *creative distance* (the amount of invention required to accomplish the goal).

If you want a group to come up with a breakthrough design for a new electronic product, you can anticipate a need for multiple sessions (probably five or more). If you think you have a lot of work to do, schedule several sessions, either on consecutive days or, if that's not possible, once a week.

When I facilitate sessions for complex products involving electronic or other engineering challenges, I usually suggest an intense initial retreat of one and a half to two days, followed by research on the resulting ideas and then several more one-day sessions in which the initial ideas are explored and developed. However, when I work on projects with fewer technical issues or constraints, I often plan just one or two creative sessions. A group can generate dozens of interesting new product concepts for snack foods in a single day, for example.

Budgeting sufficient time

Creativity can happen in an instant, so in theory, a group ought to be able to achieve a breakthrough in a session of an hour or less. Sometimes, a half hour of brainstorming is enough, but rarely! Plan for a minimum of several hours of focused creative effort to ensure both quantity and quality of ideas. I try to get a group to commit to a full-day session, with a generous lunch break in the middle to allow them to recharge.

If you can possibly do it, break your creative sessions into two days of work with a good night's sleep between them. An afternoon session followed by dinner and relaxed social interaction sets a group up for a highly productive full-day session the next day. This approach takes advantage of the power of *incubation,* the unconscious creative processing that occurs between periods of intense focus on a problem or challenge. To trigger incubation, you need to get the group deeply involved in and focused on a tough problem before letting them go. Then bring them back for another session before they forget their earlier experience. Think of incubation as keeping a soup broth simmering on the back burners of their minds. It shouldn't be the main focus, but it shouldn't be forgotten and allowed to cool, either.

Multiday sessions work well because they allow for overnight incubation. Letting the group "sleep on it" is an effective facilitation technique. Also try to block in several possible meeting times reaching out into future weeks. If your group solves the problem brilliantly in the first session, you can always cancel subsequent meetings, but if it doesn't, you'll be glad you reserved additional times.

Deciding how many sessions to run

The simplest rule for deciding how many sessions you'll need is to double the number of sessions you think you'll need. If you think a simple one-day session should be enough, plan a two-day session! In my experience, groups either achieve a startling breakthrough very quickly (quite rare) or take much longer than you expect to produce something useful. So plan for a lengthy process, and you won't be disappointed.

If you have to map a process (an important first step when working on quality problems, for example), expect to spend the entire first session just diagramming the process. This means that you need to schedule at least two more sessions to work on redesigning the process, plus a final one to work on an implementation plan.

If you're brainstorming for new product or design ideas (for example, naming or branding a new line of business), you may be able to produce a lot of interesting ideas in just one or two sessions. However, if you also need to pick the best idea and develop it into something refined enough to actually implement, you need to book at least five times as much time for implementation planning as it took to come up with the concept in the first place.

Implementation teams need a *lot* of time. Schedule as many meetings as you can fit into the group's calendar before the drop-dead implementation date. You can always cancel sessions if the group manages to complete its work early.

Preparing for Your Role as Facilitator

As a facilitator, your primary goal is to encourage creativity and participation by the entire group. Your secondary goal is to channel and focus that creativity and participation in productive directions. In this section, I help you prepare for your role by rehearsing the skills you need to get people thinking and voicing their thoughts.

Practicing your questioning and listening skills

In general conversation, people mostly use *closed-ended questions,* which are questions that ask for only a narrow range of responses. A yes-or-no question permits only two answers, so it's obviously closed-ended. A question such as "What are the best approaches to the shortage of raw materials?" is closed-ended too, although in a less obvious way. It limits responses in two ways: by asking for solutions to a specific problem (the shortage of raw materials) and by asking for the *best* approaches. The use of a qualifying adjective such as *best, good, appropriate, affordable,* or *sensible* signals that you want only cautious, well-considered responses.

Because creativity requires open-minded thinking, closed-ended questions need to be weeded out of your facilitation vocabulary. Practice using open-ended questions — questions that challenge listeners to expand their thinking. Instead of asking, "Do you think we should switch to recycled materials for our packaging?" (a yes-or-no, closed-ended question), you could ask, "How many ways can you think of to use recycled materials?" That's an open-ended question with the potential to produce exciting new ideas and possibilities.

In addition to asking open-ended, creative questions, you need to be a good listener. People commonly listen with a critical attitude, which discourages open conversation. Facilitation involves listening with an open mind and making people feel good about their contributions. As you listen to ideas, suggestions, and answers, try to be positive and encouraging. Nod and smile as people talk. Thank them for their ideas or comments. Point out something interesting or useful about each contribution. These affirmative reactions will make the group feel good about contributing and will stimulate more contributions.

Also practice taking clear notes about what people say. Often, the facilitator needs to summarize the ideas the group generates, which may come rapidly. Jot down these ideas on a chart pad in big print. You want participants to springboard off earlier ideas, so make your notes legible. If you're not used to recording a group's ideas on a large pad or board, practice this skill with one or more assistants who can shout out ideas or phrases for you to write down.

Guiding the group away from negative dynamics

Most of the brainstorming exercises you're likely to use will have one rule in common: no criticizing other people's ideas. If someone says, "We could use organic materials for all our packaging!", encourage the group to build on this suggestion. Someone might add, "Maybe they make organic paper products

now. Could we use organic cardboard boxes?" At this point, someone might say something pragmatic like "It doesn't make any sense to use organic packaging because people only care about organic products when it's something they eat. Besides, I don't think there is any certification for organic papers, so we probably couldn't even purchase such a thing in the first place."

Although this criticism might have some validity, as a facilitator you must prohibit such comments. Politely point out that you want the group to suspend judgment to allow the ideas to flow, no matter how impractical they may seem. Also point out that in many cases, the idea that seems wildest or silliest is the one that leads to a creative breakthrough.

Groups often respond well to facilitator guidance and stop critiquing ideas; however, sometimes the habit of criticizing is deeply ingrained, and the group continues to find fault with ideas. If this happens, ask the group to try a challenging exercise: Have them suggest *only* fantasy ideas that seem unrealistic and impractical. After generating wild and crazy ideas for 15 minutes or so, they'll probably be cured of their desire to impose practical constraints on their own thinking.

Other negative dynamics may also plague your group, such as the tendency for one person or a few people to dominate. If you see that participation is uneven, point out the imbalance, and ask the dominant contributors to take a break and let others speak. If the others continue to be hesitant, you may actually have to divide the group into smaller groups. People who are quiet in larger settings may become talkative in groups of three or four. Other remedies include calling on specific individuals or imposing a rotational rule requiring each person to speak in turn.

Both individuals and groups tend to fall into common thinking traps, called mental biases and group biases by psychologists. The worst one for innovators is the *rush to judgment,* in which everyone is quick to agree with the first plausible suggestion or solution. Early agreement may indicate that the group has failed to explore all the options. Challenge the group to consider more ideas before reaching a conclusion. Chapter 21 addresses additional thinking errors and group biases that you need to be prepared to remedy.

Controlling your nonverbal signals

The best facilitators do relatively little talking and let their bodies do much of the work. A relaxed, open posture, along with an encouraging, interested demeanor, works wonders in opening up a group and generating creative contributions. Nodding and smiling in an encouraging manner let people know that you like their ideas.

Also use your body language to energize the group. At first, ideas will come slowly. As soon as people begin to voice their ideas, move eagerly to the flip chart and begin to write the ideas down. Work neatly but rapidly, as if excited to capture a brilliant thought. As you write, keep looking back toward the speakers and nodding, so they know you're eager to hear more. As soon as you've captured a thought, turn and face the group fully to listen attentively to the next idea.

Watch out for habitual gestures, expressions, postures, stances, and movements. You need a different set of nonverbal behavior for facilitating creative groups because your habits are based on workplace norms, where free, open creativity is out of place. People look tight and controlled at work. Creativity needs to be loose and uncontrolled. You may want to practice in front of a mirror (a full-size mirror is best) so that you can work on a more relaxed, open, playful nonverbal presentation.

See Chapter 20 for more details on how to avoid noncreative body language and how to use creative body language to good effect as a facilitator.

Becoming familiar with the challenge at hand

As a facilitator, you need to bang your head against the creative challenge wall in advance and come up with at least a handful of creative ideas of your own. Research the topic to make sure that you have a good general understanding of its scope and are in command of the relevant facts. Check out comparable cases so you'll know how other organizations have approached the problem or challenge. Then spend some time brainstorming on your own. Put enough time into the problem to feel like something of an expert, with your own creative insights.

When you facilitate the creative group, do *not* begin by telling them what you think, even though your ideas may be more developed than theirs. Keep your knowledge and ideas in reserve. The purpose of preparing is to be better able to guide the group's thinking, not to dominate it.

As you facilitate, dip into your knowledge and ideas if there seems to be a gap in the group's knowledge or thinking. Offer your insights in the form of questions so the group feels like it owns the answers. For example, it's better to say, "What do you think about the example of XYZ Company?" than "I studied the XYZ Company's solution, and I think it could be applied to us."

Mastering the Core Brainstorming Methods

The term *brainstorming* is somewhat like a brand name that people tend to use in a more general sense (*Kleenex* rather than *tissue,* for example). Brainstorming was first coined to describe a specific method of generating ideas but has since become a handy, generic term for any and all guided group creativity techniques where the goal is to produce lots of ideas.

Almost all so-called brainstorming sessions begin with an introduction to the purpose and process, followed by a short warm-up to engage and loosen up the group and then a focused effort to express and capture any and all ideas that occur. The main goal is to be open and enthusiastic about all ideas and options, and this means suspending critical thinking.

Critical thinking is the enemy of creative thinking. There is a time for critical thinking, but it's not now. Make sure the group understands that the goal is to generate lots and lots of ideas first and then to sift through them with a critical eye later.

Warming up the group

Open the group's first session with an initial briefing in which you introduce yourself, the topic, and the process you have planned for the group to follow. Your initial briefing to the group has two objectives:

- **To orient the group:** Explain what the problem or opportunity is and what you hope the group will produce. Then summarize the process by explaining what they'll be doing and giving them a rough timeline for the activities. If you plan follow-up meetings, homework between meetings, or other activities that stretch into the future, summarize these as well. People like to know what's expected of them — especially the time commitments they're expected to make.
- **To set the tone:** Demonstrate an open, inquisitive, noncritical style. Make sure that you introduce your plans for the meeting with the need for openness in mind. If you come across as overly strict or narrow-minded, no one will feel good about being creative in your session.

You may also run the group through one or several *warm-up exercises,* which are brief, engaging activities that demonstrate the kinds of creative thinking you want the group to do. Following are four warm-ups to open the group up to creative expression. If your session is only an hour in length, run just one of these, but for half- to full-day sessions, take the time to run all four. Give the group no more than five minutes for each. Do them in quick succession

from first to last (because they build increasingly difficult skills: fantasy idea generation, practical idea generation, process-oriented planning, and problem identification — which is a particularly challenging kind of brainstorming). Ask the group to

1. **Think of ten ways for human beings to fly, aside from the obvious ones involving airplanes or helicopters.**

   This exercise requires the group to think imaginatively and gets them in touch with their sense of fun and fantasy.

2. **Come up with ten ways to open a jar of jam on which the lid is stuck.**

   This exercise brings the group's imagination into the practical realm and demonstrates their ability to come up with useful insights.

3. **Design three options for "drops" whereby one spy could hand off secret papers to another in a public place without any possibility of being seen or caught.**

   This exercise engages the group in process brainstorming, which can be more difficult than product brainstorming.

4. **Invent a completely new kind of footwear that solves some major problem.**

   This exercise requires people to brainstorm problems as well as solutions, which orients them toward finding opportunity.

If you need to warm up the same group again on a succeeding day, visit `www.supportforinnovation.com` for my library of warm-ups you can use. It's best to run warm-ups each time you work with the group, and it's good to have new warm-ups each time.

Using Osborn's brainstorming rules

Alex Osborn is credited with the invention of formal brainstorming. His technique is a good one, and facilitators often utilize it. Here are the instructions you need to give the group in order to get them started:

- Don't judge or criticize the ideas.
- Offer wild and outlandish ideas along with practical ones.
- Aim for quantity, and don't worry about quality.
- Build on each other's ideas.

It's important to enforce these rules — politely and without blame or criticism, but with a firm hand. You may occasionally need to remind participants that wild and crazy ideas are welcome and that no criticism of ideas is permitted. Also, encourage participants to build on or add to each other's ideas. Most of the breakthroughs groups produce come from people springboarding off each other's suggestions.

Introducing variations to improve results

Sometimes a brainstorming group is hesitant and holds back, leaving you standing at the flip chart without ideas to write down. When this happens, try running the group through another warm-up exercise or two. Try warm-ups involving fantastic or humorous assignments, such as brainstorming ways to avoid taxes. If the group still holds back, try allowing individuals to express themselves anonymously. The following sections show you ways to do that and more.

Brainwriting

Make sure that each member of the group has a sheet of paper, a pen, and a comfortable place to write. Then ask them to write down five or more ideas as fast as they can, working in silence. After a few minutes, collect the papers and exchange them, so that each person gets someone else's list. Ask them to read the ideas they've been given and add more ideas of their own. Repeat the process once more if you like, asking participants to read the lists of ideas aloud this time. Capture each unique idea on your flip chart, and transition to traditional brainstorming by encouraging group members to add more ideas verbally.

Pass-along brainstorming methods

In *pass-along brainstorming,* you trade your flip chart for a single sheet of paper that you send around the room, asking people to take turns writing on it. Write the focus (a problem, opportunity, or other mental challenge) on the top. Then pass it to the first person to your left and ask them to write down one idea. That person then passes it to the next person, who adds one idea, and so on around the room. Keep it going rapidly, through several cycles, to generate a long list. Then read or post the list for all to see and discuss.

A variation on pass-along brainstorming I tried recently and really liked is to turn the flip chart away from the center of the room and have participants walk past it, one at a time, adding their ideas to the hidden list. They can pass the marker among them as if it's a relay race, and you can encourage a fun sense of urgency by timing how long it takes to generate 20 ideas. Getting them out of their seats seems to help them get in touch with their creativity.

For more pass-along methods (including the stuffy but well-known nominal group technique), see Chapter 7.

Fishbone brainstorming

Fishbone brainstorming uses a cause-effect diagram in the form of a fishbone to stimulate ideas about root causes of some outcome, usually a problem you want to solve. To use the technique, draw a large fish-skeleton diagram on a whiteboard or flip chart, with the front end for the effect and the rib bones for causes to be entered during the brainstorming. For example, the effect could be "Teeth don't stay white" (a problem for consumers of whitening services and products). Ask the group to think of possible causes, and write each cause that isn't directly related to another at the end of a separate fork of the effect diagram. Your fishbone diagram should look like the one in Figure 6-1.

For example, you might add labels such as "foods that stain," "other sources of stains," "inconsistent brushing," "soft/porous enamel," "incorrect use of treatments," and "ineffective treatments." The existence of multiple forking lines pushes the group to think of multiple causes. After you've labeled most or all of the main forks, you can drill down and explore each fork by adding smaller lines along it. For example, the label "foods that stain" might be given these sublabels: blueberries, coffee, tea, red wine, and colas. Figure 6-1 illustrates the value of the fishbone for exploring this problem.

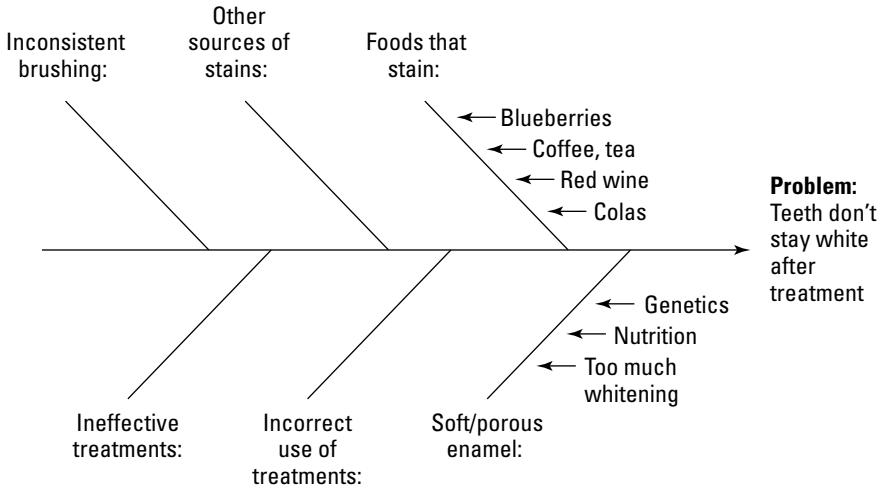


Figure 6-1: A worked example of fishbone brainstorming.

Often, the goal of fishbone brainstorming is to explore the causes of a problem to invent a good solution to the problem, so push the group to keep exploring causes until they gain insights that might lead to solutions. Then switch to brainstorming-style lists of ways to implement possible solutions.

For example, the group addressing ways of keeping teeth white might come up with the idea of *preventing foods and drinks from staining,* which might then lead to ideas such as color-free versions of foods and drinks or products that protect the teeth while eating and drinking.

Mapping the ideas

The terms *mind mapping* and *brain drawing* are often used to describe loosely organized visual lists in which related ideas are clustered together, and their relationships to each other and the main idea are shown with straight or curving lines. The fishbone diagram is a way to map causal relationships, but a simple idea map uses a looser structure based on any and all associations or relationships between ideas.

You can use idea mapping to help the group expand its thinking. Start by drawing a large oval in the middle of the blank paper or board, and write the problem or challenge there. Then add — or allow each group member to add with his own marker or pen — any and all ideas that come up. Cluster similar ideas, separate unique ones, and use lines to symbolize the interrelationships. Keep the visual symbols very simple so the map is easy to understand later on.

Loose relationships may be shown with dotted lines, while causal or directional relationships may be shown with arrows. Many software packages allow you to mind map on a computer (such as Microsoft's Visio, Edraw's Mindmap, and Mindjet's Mindmanager), but they're usually used to organize information rather than to generate creative ideas. I recommend using several large flip charts side by side or a large chalkboard or whiteboard so that the map can expand with ease. When the group runs out of steam, go over the map you've drawn at once, and convert the more interesting or useful ideas to an organized list. You may not be able to decipher the map in hindsight, because it's likely to get complex or messy.

Random word technique

The idea behind this technique is to engage creative thinking by challenging people to find associations between apparently unrelated words and the problem or project they're working on. For example, a group working on ways of improving customer service at an insurance company might be given the following random words and phrases: *steering wheel, mailbox, cupcake, massage, garden,* and *iceberg.* The facilitator would ask the group to try to relate one or more of these words to the problem. The group might come up with ideas such as

- Unhappy customers need to be "massaged" with lots of attention and special care until they feel relaxed and happy again.
- Customers should be celebrated and given special gifts (symbolized by cupcakes), so they know we care.

> ✓ Customers need to feel in control of their business relationship with their insurance company, so we should give them a virtual steering wheel in the form of a control panel on their computers that gives them the ability to manage all their insurance policies with ease.

It's amazing how readily groups can come up with good insights based on seemingly unrelated, random words. Try it yourself. Can you turn the terms *garden* and *iceberg* into insights about customer service? I bet you can!

Considering additional creative processes

As you facilitate a creative group session, keep an eye on the group's productivity. If they're eager, engaged, and highly creative, all you need to do is keep them focused on the topic and record their ideas. You don't need to provide a lot of structure.

Other groups need continuous encouragement to produce creative results. If your group is struggling to generate ideas, you'll need to be more active in your facilitation. I've worked with groups who needed me to structure every moment and offer starter ideas of my own to show them what to do in each activity. Just keep using creative activities and have faith in the creative process. Even the most hesitant, quiet groups can and do produce useful insights if the facilitator is sufficiently encouraging and persistent!

Sometimes you need to switch from the intellectual and verbal to more physical and emotional creative activities. Brainstorming and its kin ask people to generate ideas and words. If the group seems unable to do so with ease, consider activities such as stretching, dancing to music, or drawing. I'm an artist as well as an author and consultant, so it's natural for me to bring art into my facilitation.

Often, I ask a group to offer visual images that remind them of the problem or challenge at hand, and I draw these images for them on the board or on sticky chart sheets (3M makes giant Post-its that are great for this). I also invite members of the group to come up and draw their own images. Then we post them around the room and start adding lists of ideas that the images suggest to us. Art can be a wide-open back door to creative insights.

Wrapping it up

When the group has produced a wide range of ideas, wrap up the creative session by capturing the ideas clearly in writing. Then either transition to idea review and development or end the session (leaving it for another group or time to do the review and development work). You'll almost always find a few nuggets that can be turned into valuable innovations in the coming weeks or months.

Being a Brilliant Participant

Participants make the brainstorming session — or break it if they don't participate appropriately. When you step into a group meeting and pull up a chair at the table, you can either wait and see whether the other people open up and start to offer ideas freely, or you can take the lead and start offering ideas right away. It's helpful to be a creativity leader and start offering ideas and suggestions as soon as possible. In fact, by being one of the first to offer ideas, you may set the mood and make others feel comfortable offering their own ideas. It really takes just one or two brave participants to get a brainstorming session rolling.

Contributing great ideas

So you want to take the lead by offering a bunch of ideas and showing the rest of the group how it's done? Good! However, you may find that your idea well dries up just when you go to it with a desire to fill your mental bucket. There's something fairly intimidating about the expectations that come along with being a participant in a brainstorming session. Often, people find that creative ideas just won't bubble up the way they want them to.

If you feel that your creativity may fail you just when you want it the most, try these tricks to revitalize your innovative instincts:

- **Close your eyes and withdraw for a minute, allowing yourself to relax and stop thinking.** Concentrate on your breathing, if it helps you clear your mind. When you open your eyes, you may find fresh ideas welling up.
- **Scribble some private notes on your own pad of paper to stimulate your imagination.** A good exercise is to associate related or suggested words. Start by writing three to five words that are obviously related to the topic or problem. Then list three more words for each. As you write more words, allow yourself to make simple word associations based on rhymes or other qualities of the words themselves. For example, *savings* might suggest *shavings, cravings,* and *paving.* This exercise often frees the imagination.
- **Ask questions.** When you don't have answers, asking questions is the natural thing to do. If the room is quiet and people are having trouble coming up with ideas, start asking open-ended questions that may help you or others see the problem from a fresh perspective.
- **Ask the facilitator for examples.** Sometimes all it takes are a few starting ideas to get the brainstorming up and running.

Don't sit at the table silently if your creativity is feeling blocked. Try to free it through one or more personal actions. If you can't get your ideas flowing, raise your hand and tell the facilitator. It's the facilitator's responsibility to provide warm-ups and idea-generation processes that work for you.

Being an informal leader and cheerleader

You may contribute through two main activities during a group brainstorming session: suggesting ideas and encouraging others to suggest ideas. Sometimes the second role is more helpful than the first because it's common for half or more of the group to be nervous about participating.

Use positive, open facial expressions such as smiles, nods, and interested expressions, along with short verbal encouragement (along the lines of "Great idea" and "Good thinking"), to let other participants feel that their contributions are helpful. Positive reinforcement from other participants may be more powerful than encouragement from the facilitator, especially when the facilitator is an outside consultant. As a peer, you may boost the comfort level in a brainstorming session simply by showing that you're comfortable and eager to see the group produce.

Overcoming your own creative timidity

Some people express their creativity constantly in their day-to-day activities, but most people don't. If you don't use your creativity routinely, stepping into a brainstorming session may feel a little like standing up to perform in a crowded room. Stage fright may kick in, inhibiting your flow of ideas or making you hesitant to express them out loud. Here are some ways to overcome your creative stage fright:

- **Practice in advance or during the first break.** Try to fill a page with creative ideas on any topic. Try one of these if you don't have one of your own: how to save the earth from global warming, what the next big handheld device will be, or what to do about a lack of parking spaces downtown. Rehearsing the act of producing freely associated ideas will help you get ready to perform for the facilitator and in front of the group.
- **Write ideas down on a piece of paper instead of saying them out loud.** If the facilitator challenges or questions you about what you're doing, explain that your ideas don't seem to be flowing very well and you're finding it hard to speak them out loud. Ask if the facilitator or another group member can review your list and share any good ideas from it with the rest of the group.

- **Ask for clarification of the instructions.** Make sure that the facilitator is asking for any and all ideas, including "bad," "silly," or "wild" ideas. Say that you don't have any good ideas yet but that you can offer bad ones if the facilitator thinks it might be helpful for moving the group ahead.

  If the facilitator confirms that your ideas don't have to be polished or refined, you'll feel more comfortable with expressing whatever comes to mind, and so will those around you. Misery loves company, after all. Think about the metaphor of having to perform in public. It's much easier when others are performing too, and the same holds true for voicing creative associations.

Chapter 7

Mastering Advanced Brainstorming

In This Chapter

- Persisting long enough to produce an excellent innovation
- Shifting your focus to see the challenge in new and better ways
- Using visual techniques to stimulate your thinking
- Maximizing the effectiveness of group thinking

Chapter 6 shows you how to work with a group to generate creative ideas or options. It's great to get a group together, close the door, and start brainstorming. But sometimes, you still come up short and need to try some more tricks. It's important to keep going until you have at least one really great idea.

A group (or even individual) brainstorming session is often just the beginning of a creative thought process. You may want to challenge the group with additional creative activities. You may also want to go back to your desk (or somewhere more stimulating to the imagination) and try your hand at generating more ideas of your own.

Fortunately, the supply of creative processes and techniques is limitless. (One recent study documented more than 150 brainstorming techniques!) And if necessary, you can always invent more. You're an innovator, after all.

This chapter shows you how to help yourself and others produce more and better ideas by using powerful tools and tricks that stimulate the imagination and tap into fresh new veins of thought. From creative ways to focus (or refocus) your brainstorming to visualization exercises, this chapter guides you in getting the most out of your group sessions.

Going the Distance to Cash In on Creativity

Usually, brainstorming starts with the simple question "Does anyone have any ideas about X?" Sure, people have ideas, and you can probably fill a large piece of chart paper, a whiteboard, or an electronic message board with these ideas — provided that you make sure everyone contributes; builds on others' ideas; and remembers not to criticize any contributions, no matter how seemingly stupid or silly. Following is a typical starting list of brainstormed ideas; in this case, it's ways to publicize a new shampoo brand.

How can we attract more attention to our new hair-care brand?

Get a celebrity to use it.

Give it to the ten most famous celebrities.

Give out trial-size bottles at top salons.

Raffle off a lifetime supply.

Give away a giant bottle.

Hide a coupon worth $1 million in one of a million bottles.

Make a movie about it called *Sharleen in the Shampoo Factory.*

When a group brainstorms, one idea leads to another and another, as the associative process takes hold and the group generates ideas freely. However, the list you produce may not be exactly what you need, just as the preceding list certainly isn't the final word on how to market that new shampoo product. Usually, the first list of ideas is rough and preliminary. It may even be naïve. If you give up after the first round, you'll probably convince everyone who participated that brainstorming is a waste of time. But it's not. It gets the creative process started. Like most things of any great value, creativity takes time and effort. Persistence pays off. Impatience doesn't. Don't give up after one or two preliminary efforts to generate ideas. Plan to go through multiple rounds of idea generation, examination, and regeneration.

Critiquing the results of your brainstorming

It's important to cycle between creative and critical thinking. That cycle is at the core of advanced idea-generation and design processes because it helps both to expand your creative thinking and to refine your ideas, solutions, and designs.

Often, it helps to take a critical look at the first round of creative ideas. A very simple and easy method is to ask everyone at the brainstorming session to cast anonymous votes for their favorite ideas. I've used the little-round-sticker method many times for this purpose. Give each person six

stickers. (I like to use the inexpensive kind you'd use to price garage-sale items, but you can use others if you have them on hand.) Let the participants allocate their six sticker-dots however they want — across six top ideas, or concentrated on one or a few favorites. Then create a table or bar chart of the ideas and the number of votes each received. Save the top ones (usually, 6 to 12) for further research and development.

You may also want to research the options and evaluate them by using a more thoughtful, scientific approach. If there are technical issues, test or study them from a technical perspective and decide which ones are most practical. You might even make prototypes for advanced testing. If what matters most is whether prospective customers will like a design, survey customers to ask them what they think, using a well-executed picture of the proposed design.

Figure 7-1 shows the results of a customer survey in which 100 shampoo users were asked what they thought of a variety of possible designs for shampoo bottles. Each bottle was illustrated and described, and the respondents were asked to rank how much they liked each one. (See Chapter 8 for more ways of collecting customer input.) Clearly, the feedback from customers helps narrow down the list of possible package designs and helps the developers decide what approach to take to their new shampoo packaging.

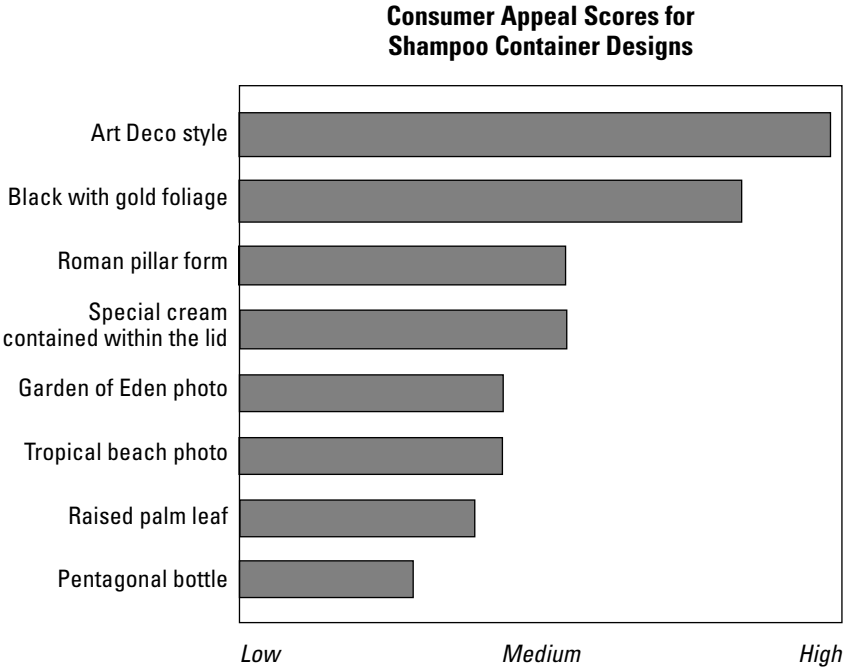


Figure 7-1: Consumer preference for new shampoo-package designs.

To the surprise of the design team, an Art Deco approach to the shampoo bottle design was the most popular concept with customers, and Art Deco colors came in second place. The team had been favoring a tropical palm tree look, but customers pointed them in a different direction.

The shampoo development team decided to do some research by collecting old-fashioned photographs from the 1920s to find out more about Art Deco and see how to base a new brand on a Deco aesthetic. They began to look closely at vintage waves and bobs, and they formulated a shampoo and conditioner designed to help recreate those Art Deco looks. They also came up with the idea of packaging elegant Art Deco hair clips with trial packages of their shampoo and conditioner. The bottles were given a look akin to classic Art Deco buildings, and the label included a woman with bobbed hair and an elegant Art Deco dress in front of a Nash Ambassador Slipstream sedan. The name of the shampoo brand? Art Deco, of course!

Doing more research based on first-round questions

When I help companies generate ideas, I often find that my clients expect a full-blown solution or design to emerge from the first idea-generation session. Sorry, but it doesn't usually work that way. Even if the first day of brainstorming does produce a really great concept, it's still just a concept. It needs to be developed and refined, and there may be problems that need creative solutions along the development path.

Many brainstorming sessions raise more questions than they answer. If you emerge from a brainstorming session with a handful of new questions that help clarify and focus your thinking, you're doing pretty well!

I suggest that you keep a piece of chart paper taped up on the side of the room while leading a brainstorming session, with "Interesting questions to study" written across the top of it. As the brainstorming session goes on, periodically a question will come up that's important to the thought process but hard to answer. Write it on that list of important questions.

At the end of the day, review the list of questions, edit or add to it as the group sees fit, and then assign the questions to volunteers from the group. Their job is to research their questions and report what they find out to the rest of the group. It's amazing how often this research process produces the insight the group couldn't quite reach during the brainstorming session.

Start your next session with the same list of questions, and have the team discuss the research findings. Then see whether a better design or solution to your problem comes to mind. Often, it does.

Being persistent

Quantity ensures quality, at least when it comes to ideas. There's always debate about which (or whose) brainstorming techniques work best, but the one thing that's crystal clear is that highly successful innovators are more persistent than other people. They generate more ideas by spending more time working on their design goals or problems. They have *creative stamina,* or the persistence born of the knowledge that innovative results are a factor of focused effort, not talent or intelligence.

A great way to ensure persistence and productivity in idea generation is to plan for multiple brainstorming sessions, using a variety of techniques. The more the better. And a great way to start is to use techniques that focus your imagination, such as a specific question or problem statement.

Focusing Your Brainstorming in Creative Ways

It's difficult to see more and better options from just one viewpoint. Focusing and refocusing your view of the problem gives you fresh perspectives and fresh ideas. You can use a shift or narrowing of focus to generate more and different ideas. In fact, you ought to shift focus several times at least before you finish a brainstorming process. Otherwise, you may fall prey to the problem of fixation on one approach and fail to consider other possibilities.

Stimulating a shift in how people think about the topic

Shifting focus is a powerful way to get fresh ideas and insights. If you're not sure how to shift the focus, start by brainstorming about that. Use one of the following as your problem statement for a brainstormed list of ideas:

- Define or approach this problem in some new ways.
- Come up with analogies for the problem or goal.
- Think of similar situations or challenges others have already conquered.

Imagine a business that has an old, deteriorating building that needs expensive repairs. A group has been asked to come up with recommendations for how to approach the repairs: which to do in what order, which projects have synergy, which can be deferred with the least risk, and so forth.

The facilitator of the meeting poses a focus-shift question: "Is there another way to look at the problem of an aging building we can't really afford to keep up?" The group begins to brainstorm ideas, some of them silly and some potentially useful, such as

- Trade with some company that has a newer building and doesn't realize ours is in bad shape.
- Burn it down for insurance.
- Move to a new location.
- Tear it down and replace it with a modern, more efficient building.

As the group discusses options, it comes to the realization that it's inefficient and overly costly to keep patching up the old building and that, in fact, a replacement building might be a really good idea. It then shifts from the original task of writing a long-term maintenance plan to a new task: running the numbers to see whether moving to a better building might actually save money in the long run.

As in this example, prodding a group into considering a shift of focus is often immensely valuable. The mental thought process you go through when you find a new way to look at a topic is called *reframing,* and it has tremendous creative power because it opens up new lines of thought and action. Asking for new ways to look at a problem often produces a reframing of the original topic, which then leads to insights about how to approach it.

Fighting design fixation

Refocusing is especially important when the group (or individual) is guilty of *design fixation* — overly narrow assumptions about the nature of the answer or solution. Design fixation is very common, and it unintentionally narrows the focus of the group to just one family or style of possible answers.

For example, a group working on ways of designing more energy-efficient cars might be fixated on the idea that they have to design vehicles with two axles and four wheels: carlike designs. That could keep them from considering alternative forms, such as three-wheeled vehicles, vehicles with many extra wheels that act as flywheels to store energy, and hovercraft-type vehicles that have no wheels or that lift off their wheels at freeway speed, just to name a few of the alternatives that could be considered. Perhaps the single most energy-efficient transportation vehicle ever invented is the raft that runs on a canal between two major cities. Because rafts float, they require remarkably little energy to move. A freight-carrying raft on a canal may very well be the most "green" vehicle possible, but of course that old concept is not likely to

be revived if everyone is fixated on carlike designs. (And what if you add a sail? Wind's free and extremely planet-friendly!)

Design fixation is everywhere — and usually hidden within the story of a company whose fortunes have declined. The U.S. automakers were fixated on large, heavy vehicle designs back when the Japanese automakers first gained a significant share of the U.S. market with their light, energy-efficient designs. Detroit could have designed similar cars, but they didn't because they just never gave the idea serious thought.

The best way to ensure that you aren't overly fixated on one approach is to include a design-fixation check somewhere in the fairly early stages of your creative process. Pose the following challenge to the group (or to yourself, if you're working alone):

> *Is there a* radically *different way to approach this problem?*

Then brainstorm as many fundamentally different alternative approaches as you can. For example, instead of making an energy-efficient car for commuters, you might consider canal-borne rafts, mini-dirigibles, moving roadways like giant conveyor belts, car trains for small electric vehicles to ride on for longer legs of their journeys, wind tunnels, and so forth. Maybe in the end you'll come back to an efficient hybrid electric-gas automobile, but at least by then you'll be sure that you couldn't have done it better by shifting to another family of possible solutions.

Sharpening the view with narrower problem definitions

Another powerful focusing technique involves drilling down to increasingly specific descriptions of what the problem or objective is. But how do you come up with these more specific strategies or approaches? Advance research helps — you can look for information about how others have tackled similar projects or problems. Also, you can always ask the group to help you brainstorm a list of general strategies and then conduct a second round in which you ask the group to develop specific ideas or designs for each strategy.

For example, you may start out with a broad goal such as "How can we boost revenue by at least 10 percent next year?" That sounds like an important objective for brainstorming, and it will certainly produce some suggestions. However, a broad question such as that tends to tap into fairly obvious answers and may fail to produce any fresh insights. Dig deeper for good ideas by narrowing the focus with more specific brainstorming topics, such as

- Can we turn one of our lesser-known products into a best-seller?
- Are there ways to upsell existing customers and get them to buy a lot more from us?
- What would we have to add to our products or services to justify a 10 percent or higher price increase?

These more specific questions are based on possible strategies for accomplishing the overarching goal of increased revenue. There are lots of possible ways to increase revenue. If you focus the question by naming a specific strategy, you're likely to get more ideas based on that strategy than you would get with the general statement of the goal.

Breaking the problem into smaller problems

Complex tasks are usually easy to break down into steps or stages. For example, the overall task of writing next year's business plan can be divided into researching the market, collecting financial data, doing projections, and so forth. A team may list a dozen chores associated with business planning, divide the list among themselves, and then get together to integrate their separate contributions into one master document.

The same approach can be used for creative problem-solving and design. A great way to divide and conquer is to start with a broad question and then brainstorm narrower, more specific questions that nest beneath the starting question.

For example, if you want to introduce a new vacuum cleaner that doesn't need to be plugged in, is good for the environment, has a very powerful motor, and not only cleans the floor but also filters the air, well, you might be as stuck for ideas as I am right now. Hmm. So break the problem down! You could start with a focus on motors. Are there any new motors that combine high power and small size with a very low use of energy to run? Maybe. If you find one, you can probably design a breakthrough product around it, so it's a great question to focus your brainstorming. Finding a better motor is a nicely focused project that might be fairly easy to research — for instance, you could get in touch with industry experts and associations like the Small Motor and Motion Association.

As you break complex, open-ended problems or goals down, eventually you get to a level where the questions are so specific that they require less creative effort and are more easily solved through standard research techniques. Then as you combine the specific findings from multiple, narrowly defined questions, you're able to build up to a high level of creative design again, this time with a clearer idea of how you'll accomplish the specifics.

Visualizing for Creative Success

A picture's worth a thousand words, but most people brainstorm in words, not pictures. Try to work at least one or two visual techniques into every creative session to tap into more aspects of your creativity. You don't have to be an artist to think visually. Here are some helpful ways to engage your visual thinking skills.

Introducing visual reference material

One great way to bring your visual thinking to bear on your challenge is to use visual images to stimulate your own and others' thinking. Gather photographs, diagrams, or actual physical examples of ways others have approached similar problems. Sometimes, gathering great solutions to dissimilar problems is also helpful, just because it's inspirational to see brilliant work in any field.

Spread the examples around your workspace or brainstorming room where your team can see them. Post pictures, plans, diagrams, and press clippings. React to these examples informally, just by seeing whether they suggest any ideas. If an informal approach fails to produce the results you want, pose formal questions about the examples, such as

- How many different ways have people tackled the solution of this problem?
- Could we combine the best from two or more of these examples to produce an even better option?
- Can we improve on the best of these designs?
- Can we adapt a clever solution to a different design problem and make it work for us?

These questions force the group to look at the images around them and process them for creative inspiration. Often, the result is an avalanche of creative ideas.

Using imagery to stimulate the mind's eye

Visual thinking can be done within the mind because we all have the capacity to visualize things, even if they aren't right there in front of us. Analogies and metaphors are helpful in stimulating visual thinking.

Challenge the group to paint brief verbal pictures that represent the problem. For example, they might think of a budgeting problem as being like "trying to carry too much weight on a small boat." Their effort to think visually may

help them see new approaches and alternatives, because visual thinking often helps boost creativity.

Sketching ideas rather than describing them

Imagine you can't use words. How will you communicate an idea to others? You might draw a map or floor plan, a diagram or flowchart of a process, or a picture of a design for a new product or tool. Prehistoric cave drawings communicate to us today, showing us how hunters surrounded large animals and brought them down with multiple spears — an important innovation in its day. People have been sketching their ideas for a long time. It's a powerful way to communicate ideas, as well as to think of them in the first place.

Sketch pads and boxes of fine-tipped colored markers belong in every brainstorming session and ought to be used for at least one round of no-words-allowed brainstorming. Ask people to generate a sketch of an idea and then have them take turns explaining their ideas to the rest of the group. Figure 7-2 shows a good format for sketching rough ideas on chart pads, in which the sketch is accompanied by brief explanatory text. Very often, a round of idea drawing produces fresh insights that you can develop into useful designs or plans.

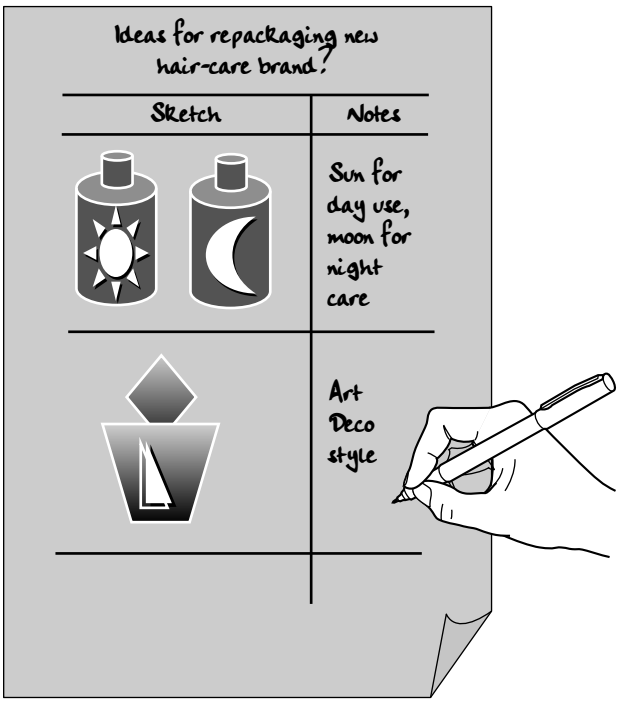


Figure 7-2: A helpful format for sketching design concepts.

Building solutions from standard geometric shapes

I sometimes draw a series of neat geometric shapes on the board or chart pad and challenge pairs of participants to design solutions to the problem, using only these shapes plus their imagination. Don't force the group to be too literal, because the goal is to stimulate fresh, imaginative thinking.

Some design elements you can offer include small and large circles, squares, wedges, rectangles, rods, cones, boards, and belts and elastic bands of various sizes. You can offer a simple list of shapes or draw the shapes on the board or chart pad. Instruct teams of two to four to imagine that they're going to build something that solves the problem at hand. They can give the shapes specific properties to meet their design needs. A circle can be a tire, steering wheel, timing wheel, gear, or anything else they need it to be that's circular. They may also use as many repetitions of each shape as they want.

A simple but potentially profitable design concept came out of a shape-brainstorming session with the goal of inventing new products for office or household use. The concept this team came up with was a set of mugs, each of which has a unique geometric shape so that people don't get confused about which one is theirs.

The results of shape brainstorming are almost always highly imaginative. After you run a shape-brainstorming session, have each group show its drawing and explain how it works. Then ask them to identify elements from the imaginative design drawings that they would like the real design or solution to have. From this list, begin to develop a real-world design.

Storyboarding an idea

A *storyboard* is a piece of poster paper that has a cartoon-style series of drawings and captions or speech bubbles. The format is often used in the advertising industry to show an idea for a television ad. It's also great for showing how you think customers might use a new product you're considering or how a newly designed service function might interact with customers.

Whenever you're working on a process that has people doing things, a storyboard can be used to tell the story of how the interaction might go.

For a fun and potentially helpful alternative, draw simple comic-book-style pages showing people working with or consuming a new invention or product. Then share the story with associates or a group you've assembled to brainstorm with you, and get their reactions. Showing has much more impact than telling and often generates rich feedback and suggestions.

Making small-scale models

Nothing is quite as helpful as a model of a new design that you and others can see, pick up, and handle. Architects often build balsa wood models of proposed buildings for their clients to examine and critique. Sometimes, the client realizes he doesn't like an element of the design when he sees it in three dimensions rather than just on the blueprints. Depending on what you're designing, you might use balsa wood, glue, paper, tape, flexible plastic sheets, or heavier materials requiring a wood or metal shop to help you.

If you need to impress someone, a sophisticated model is needed. But if you simply want to get reactions to a design concept, a simple, inexpensive, rough model will do.

Using sticky notes and a wall for your brainstorming

You can morph verbal brainstorming into a visual medium by using sticky notes.

To show you how sticky notes can help a group visualize solutions, imagine the case of a seaside hotel that does very well in summer but loses money in winter. The manager wants to generate ideas for drawing off-season guests and increasing utilization in the winter. Figure 7-3 shows a sticky-note brainstorming session. First, the facilitator posts a sticky note with an objective. Next, he chooses a list of random words out of a dictionary (see "Generating ideas from random words" later in this chapter) and writes them on sticky notes that he puts up on a wall in an "inventory" area.

Then the facilitator forms his group into creative pairs whose instructions are to select one random word and brainstorm ideas from it. Group members are told to associate possible strategies — no matter how wild or crazy the idea — and write them on sticky notes. Then they place their notes next to the random words that stimulated each idea.

As the members of the group post their idea notes, they or others may associate new ideas with the posted ones. If so, they're told to post their new ideas next to the ones that gave them the ideas. That way, the sticky notes grow along the associative pathways of the group's creative thinking. (See the next section for other ways to map ideas based on their relationships.)

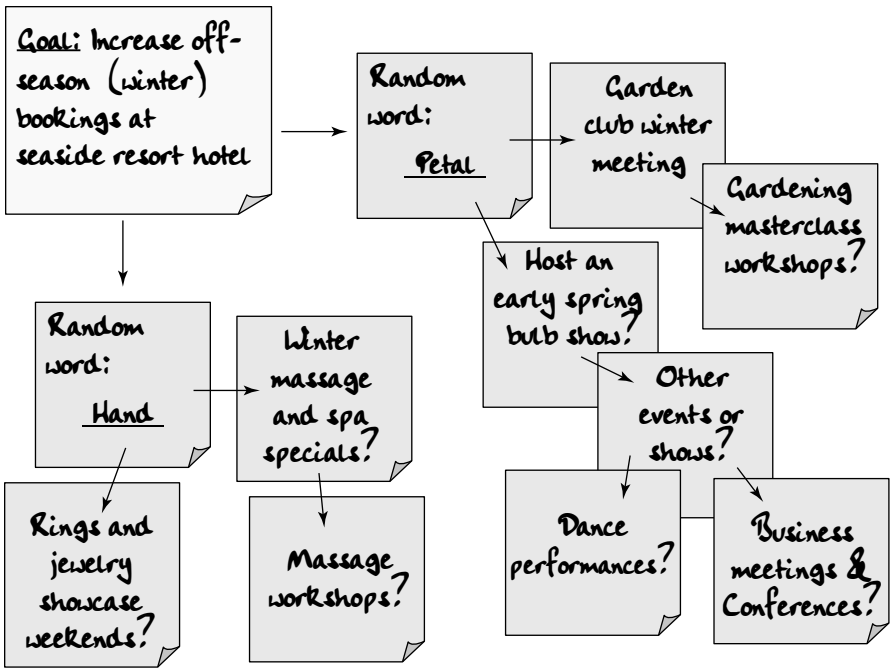


Figure 7-3: Use sticky notes for random-word brainstorming.

Drawing a mind map

Mind maps can be used by individuals or groups to brainstorm new ideas. A *mind map* is a visual approach to taking notes in which you use lines or arrows to show the connections between concepts, facts, questions, and ideas. When you use mind maps to organize notes (a practice proven to improve student recall when studying), the arrows should reflect a logical structure for the content. However, when you use mind maps to brainstorm new ideas, the arrows indicate the associative pathways your thinking takes.

Figure 7-4 shows how a group uses a mind map to think about new product concepts for the coffee industry. It shows how you can use *big questions,* or questions that suggest important avenues of thought (they're shown in italic in the figure), as well as a variety of smaller questions and ideas organized in natural thought clusters.

As your mind map grows, it may be necessary to expand it by adding more sheets of paper. I recommend using very large sticky pads. A few sheets of them can turn a wall into a mind-mapping center, allowing multiple people to work simultaneously. However, when I mind map by myself (a practice I often use when I want to find new approaches to a subject), I use large drawing pads or, if I don't have one at hand, 11-x-17-inch sheets of paper on a conference table, taping sheets together if my map gets too big for the first one. I've sometimes used as many as six or eight sheets as I expand my thinking.

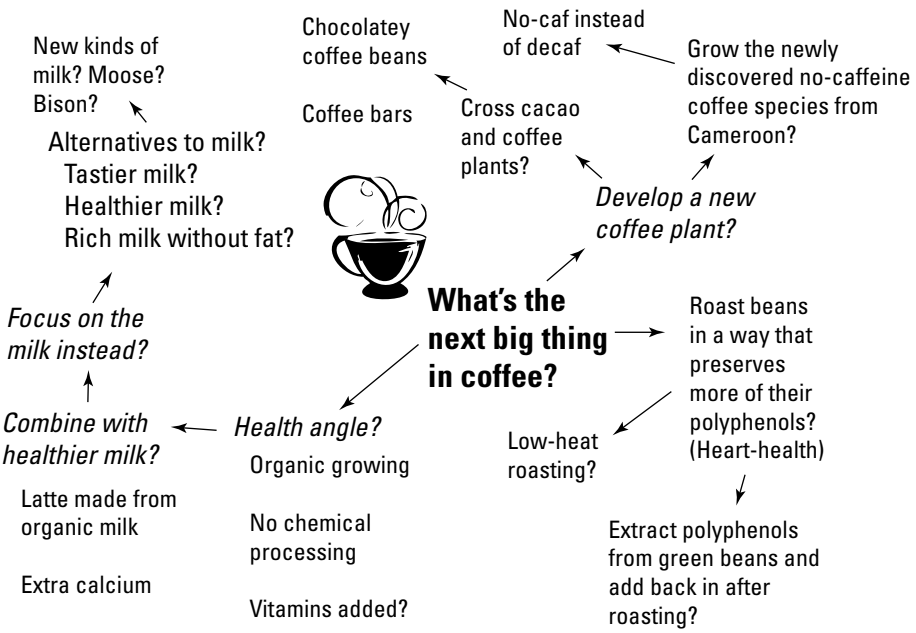


Figure 7-4: A mind map of new ideas for coffee products.

Combining research with mind mapping

Mind mapping raises as many questions as it does ideas and proposals. Having a research tool at hand to answer those questions is very helpful. If your inquiry is general in nature, Wikipedia (`www.wikipedia.org`) or some form of encyclopedia may be useful. Also, you can invite experts such as chemists, engineers, or doctors to your mind-mapping session so as to have ready access to special expertise that can be integrated into the mind map. That way, your mind map is smarter than any of the individuals in the room and combines both their knowledge and their ideas.

In Figure 7-4, you can see how certain facts about coffee work their way into the mind map. Someone looked up alternative sources of milk, and someone else discovered a new species of coffee that raises the possibility of producing naturally uncaffeinated coffee with all the flavor of regular coffee.

You can use research to provide the structure for brainstorming solutions to a problem. Study the topic to learn what the principal approaches are. These become the general categories that you brainstorm within.

The example in Figure 7-5 concerns a workplace in which the management team wants to try to prevent the seasonal flu from spreading widely and infecting so many people that productivity is hurt. Their initial research suggests that three main categories of strategies might be productive: education,

prevention, and containment. They then brainstorm possible ways to use each of these strategies in their own workplace. Their approach involves the use of sticky notes arranged in columns under the three main categories.

Using mind-mapping software

Concept development is a fairly simple challenge for mind mapping — all you really need is a lot of paper and markers to do it. But when you have a good concept, if you want to do another mind map to help you design it, you'll find yourself getting into a lot of specifics that can be hard to organize and keep track of. Enter mind-mapping software.

The size of a virtual page is unlimited, and software programs can keep track of all the ideas and information, including much more detailed information than you'd want to write out by hand. The latest software programs allow you to integrate electronic documents and Web links into your mind maps, making them extremely rich and detailed.

Some of the mind-mapping software programs allow shared use, so you can have a virtual team working on a mind map from distant locations. The facilitation can be a bit tricky, but it's interesting to see what you can generate as you cooperate with far-flung participants.

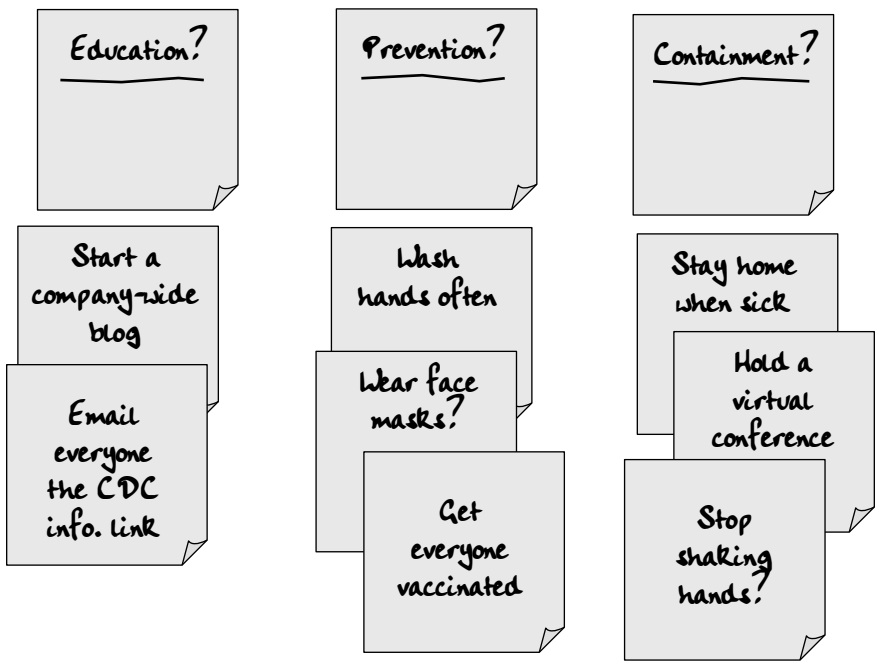


Figure 7-5: A solution brainstorm structured into three main columns of ideas.

The Compendium Institute offers shareware for download from its Web site, `compendium.open.ac.uk`. FreeMind is another popular open-platform program. It's available for download at `freemind.sourceforge.net/wiki/index.php/Main_Page`. Commercial products include iMindMap (`www.imindmap.com`), Mindjet's MindManager (`www.mindjet.com`), and NovaMind's Mind Mapping Software (`www.novamind.com/mind-mapping`).

Clustering ideas and suggestions

A variant of mind mapping involves the initial generation or collection of lots of ideas, suggestions, and other helpful thoughts and bits of information, followed by an effort to cluster them into groups based on their relatedness. You can use a formal outline structure for organizing the ideas, but it's so linear that it doesn't lend itself to innovative thinking very well. That's where the mapping comes in. Cluster the ideas visually instead of putting them in an outline or table, and see what insights the effort produces.

I like to use index cards for the first step of a cluster-brainstorming session. Hand out a small stack of index cards to each participant. Then ask the participants to generate ideas, questions, or related facts — one per card. Let them work individually (a variation on the nominal group technique; see "Using index cards and the nominal group technique" later in this chapter), or have them work in breakout groups of two to four. You can even run a general brainstorming session, but have the facilitator write each suggestion on a card rather than on a board or chart pad.

When you have 30 or more index cards filled with ideas, gather the group around a large table and begin to seek order. What are the natural clusters of cards? Lay them out as best you can, trying to find group consensus as you go. What you're doing is actually an intuitive version of a statistical technique called *cluster analysis,* in which variables that correlate with one another are grouped to reveal underlying relationships and patterns. Your cluster map may reveal interesting groups or connections, too. It most certainly will stimulate more ideas, which you can add to the map, just as you would when doing a regular mind map (refer to the earlier section "Drawing a mind map").

Producing insights and proposals from your mind map

The mind map itself is not the end product. After the mind-mapping or cluster-brainstorming session is over, sit down on your own or with one or two associates to mine the map. Examine it for interesting ideas, fresh insights, or new ways to focus your research and development. Make a list of the promising outcomes. Decide who will follow up on each one, how, and when.

In fact, the journalist's classic set of questions may be applied: who, what, when, where, why, and how? If you answer each of these questions, you'll always have a clear idea about who's doing follow-up, when, where, and so forth. Create a summary action plan to e-mail participants with their who-what-where-when-why-how assignments.

The "why" is especially important as it defines the imagined benefits and helps clarify the potential importance of the work. I like to create a blank table with room to write the question or proposal at the top and with empty columns for each of the journalist's six questions. Fill in one of these tables for each promising finding from your brain-mapping exercise (or from any brainstorming activity), give the tables to appropriate individuals for follow-up, and gather again for a debriefing on their findings in a week or so.

Follow-up is key when it comes to preliminary, free-minded brainstorming activities like mind mapping. Without it, all you've done is exercise your imagination, which isn't a bad thing to do, but it's better to harness the energy of that work to produce an actual, innovative outcome.

Maximizing the Power of Team Thinking

Creative teams are organized groups of people focusing on generating ideas, designs, or solutions for a common problem or goal; they bring together the diverse experiences, knowledge, and ideas of many people. Most people believe that a group will easily produce more and better ideas than an individual, which is why we form groups when we have creative challenges.

The whole idea of brainstorming is that a group should be more productive than an individual. However, that common belief is as much myth as fact. Quite a few studies have shown that individuals brainstorming on their own are more productive on average than groups. The psychologists who study this stuff even have a term for this misplaced faith in the group: *illusion of group productivity*. Groups don't usually produce as many creative ideas as they think they will, nor are those ideas as good as they anticipate. Most of their participants fail to generate a high number of ideas. What can you do to make sure that your groups *are* highly productive? The following sections outline some of the many good ways to get a real, live group to produce at a high level.

Using index cards and the nominal group technique

The *nominal group technique* (NGT) involves the individuals of a group writing their ideas on slips of paper, which are then gathered and shared with the group for voting, discussion, or other purposes. Traditionally, NGT has been used effectively for group decision-making.

Creative chitchat

One simple but effective way to make people produce more in group sessions is to have them participate in an electronic chat room, where they all post their ideas as fast as they can type, and every idea is visible to all who are invited to the chat. Research shows that electronic groups are often more productive than actual live ones. Probably the social influences of others' presence are lessened, reducing *production blocking* or the self-censorship of creative thought and expression. To make a chat room brainstorm effective, invite an appropriate group, brief them in advance, and stay in the chat room yourself to facilitate. You may need to ask a participant to avoid criticism of others' ideas, for example. Chat rooms are great places to generate input and ideas, but be careful not to discuss proprietary information online.

Here's how to take a vote by using NGT:

1. **Have each individual write down his first choice plus a supporting argument for it.**
2. **Have each member privately rank all the proposed solutions.**
3. **Tally the rankings.**

   The winning proposal emerges.

You can also use an NGT approach to generate ideas and share them with the group:

1. **Pose a question or challenge, just as if you were initiating a brainstorming session.**
2. **Pass out index cards or sheets of paper.**
3. **Have everyone write their ideas down in silence.**

   This differs from the brainstorming session in which you call on people to voice their ideas.
4. **Gather the first crop of ideas, and transcribe them (minus duplicates) onto a chart pad at the front of the room.**
5. **Hand out more cards and gather another round of ideas.**

   These ideas will be richer because group members will be inspired by each others' thinking.
6. **Repeat the gathering and summarizing of information.**
7. **Transition to yet another round of index card notes or to a traditional brainstorming session or discussion.**

When you think you have a good crop of ideas based on quantity (at least 30) and quality (a wide range of approaches including many unexpected ones), transition to a critical evaluation of the ideas. This can be done in one of two ways:

- **Unstructured:** Simply ask the group to discuss the ideas and try to reach a consensus regarding their favorites.
- **Structured:** Hand out index cards once again, this time with the instruction to identify and rank the top three ideas. As you hand out the cards, tell group members to give three points to their first-place choice, two to their second, and one to their third. That way, the top choice gets the most points, not the least.

Gather the rankings, tally them, and see which ideas got the most and highest votes. To compute the winners, add the numbers assigned by each member to each idea (three for a first-place ranking, plus two for a second-place ranking, and so forth). The idea with the highest total points is the group's top choice.

The NGT produces more and richer contributions from group members when there are pressures that might keep members from participating fully in a regular brainstorming session, such as the following:

- Some group members tend to dominate the discussion.
- Some group members are introverted and think better in silence.
- People are new to your team and uncomfortable with freely sharing their ideas.
- A supervisor's presence inhibits verbal sharing of ideas.
- Controversy or politics is likely to get in the way of open conversation.

Even if these factors don't seem to be present, I still recommend doing a round or two of NGT just to increase the productivity of your group. Mix it up with traditional brainstorming to maximize creative production.

Using pass-along brainstorming

Another great way to alter the creative dynamics and shake free a few more good ideas is to pass a piece of paper around the room, allowing each group member to add her own thought to the bottom of a growing list.

I don't recommend this as your primary brainstorming method, because it sidelines most of the group while one person writes, but as a quick way to change the dynamics, it can be quite useful.

Pass a tough question around the room

Write a thoughtful question at the top of the top sheet of paper on a lined pad. A question requiring creative thinking, not a technical or logical response, works best. Then pass it around the room, allowing each person to contribute his thoughts in turn. At the end, read the entire list and then open the floor for discussion. Sometimes, ideas will build up as each person takes turns writing, and a fresh approach will arise. If this happens, switch to a verbal discussion or begin to sketch or diagram at the front of the room to see whether the idea can be implemented to meet your needs.

Tell stories about strategic success

Sometimes, writers experiment by using pass-along brainstorming to write a short plot synopsis or story. They take turns contributing a sentence, a paragraph, or even a whole chapter. How will the story develop? None of them knows, but somehow, the story does develop, climax, and resolve, and interesting characters develop. The group-writing process can produce creative twists and turns that surprise the contributors.

I've adapted pass-along storytelling to the strategic planning process by having participants in a planning retreat take turns contributing to a story about a successful new innovator in their industry. The ideas that may surface when you engage people's imagination in this way can be amazing. Sometimes, one of the fictional, winning strategies works its way into the strategic plan, showing how imaginative exercises can bring to the surface fresh ideas that produce innovations.

Pass along a brainstormed list by e-mail

I sometimes use an e-mail version of pass-along brainstorming in advance of a creative session. It avoids the problem you have in a group of most people doing nothing while one person writes.

When you circulate a question by e-mail, you're really just adapting the old-fashioned chain letter to modern electronic brainstorming. Provide a circulation list at the bottom of the e-mail, with instructions for each person in the chain to add her ideas and then pass the e-mail on to the person whose name follows hers.

Put your own name at the bottom of the list (assuming you're the facilitator) so the accumulated ideas make their way back to you. Then clean up the list and print copies of it as a handout or blow it up as a poster to share when your group assembles in person. Or if you're not assembling the group in person, e-mail the master list back to all participants with a thank-you note that includes a brief description of how you're using their input.

Ask your pass-along e-mail participants to offer suggestions for creative or analytical questions that might help clarify the right approach to the project. If you use the pass-along method to develop a list of insightful questions, you can then do some research and gather information of relevance to each question. Bring the information to the brainstorming session, along with the master list of the questions, to provide the group with a research base that helps them with their thinking.

Generating ideas from random words

The *random-word technique* uses randomly selected words from a source such as a dictionary to stimulate fresh thinking. The idea behind this technique is to engage creative thinking by challenging people to find associations between apparently unrelated words and the problem or project they're working on. Figure 7-3 illustrates a random-word brainstorm, using sticky notes to mind map the associations.

Working individually, too!

Sometimes, I find that people are hesitant to innovate the old-fashioned way: by holing up somewhere with lots of research (such as background information, technical requirements, and examples of failed approaches) and persisting until they finally come up with a breakthrough. The fact is, sometimes you can run brainstorming sessions, ask for e-mail input, and consider dozens of employee suggestions and still not have a really great idea. That's when it's time to put on your own thinking cap and close and lock your office door (or studio — see Chapter 1 for ideas on how to create your perfect creative space).

Cycle between private and group work

Don't be afraid to turn away from group processes, ignore others who want to be helpful but don't seem to be moving things ahead, and just plain think about the problem. Persistence is certainly the single most powerful creative technique, and anybody can use it if they are, well, persistent enough. If you go off and think really hard about a problem and then come back with fresh ideas or insights, you may be able to refocus the group in a new, more productive direction and get better input from them.

In my experience, the leader of a creative process or the facilitator of a creative group needs to do some hard thinking of her own. Don't leave it to the group to come up with a breakthrough.

Contribute extra ideas after you've left the session

Individual work parallel to the group is valuable even if you're not leading the group but are just one of many participants. Take the project or problem home with you; incubate it overnight; and try your hand at a list of ideas, a design sketch, or another form of solution the next morning. It's amazing how often the really good idea waits until the brainstorming session is over to pop into your head. Try to send in at least one high-quality idea within several days after a brainstorming event.

If you plan on following up with additional ideas, you'll probably keep thinking about the topic, at least subconsciously, and a great idea is likely to suddenly leap to the forefront of your mind.

I spent three days brainstorming new breakfast-cereal concepts for Kellogg's and was very proud of the lengthy list of ideas our group produced for them. However, in the years after that session, I've actually come up with a number of even better ideas. The intense immersion in the topic primed me to think about it, and I guess I've been incubating it ever since. For example, my 5-year-old daughter loves cereal with milk and maple syrup, and so do I. It occurred to me this morning at breakfast that a Maple Krispies product could include small pieces of maple-sugar candy shaped like maple leaves that melt into the milk. Yum!

I checked Kellogg's Web site (`www.kelloggs.com`) and found that they have an open-innovation system called Great Ideas (click Great Ideas on their home page or go to `www2.kelloggs.com/GreatIdeas/default.aspx`). So I entered my product proposal on their Web site, and now I'm going to keep an eye on the grocery store shelf to see whether it pops up. I'm no longer under contract so I won't profit from the idea, but I'll still feel great if it gets adopted. See Chapter 8 for ways of enlisting volunteers like me through crowdsourcing. People love to share their ideas!

Chapter 8

Going Beyond Brainstorming

In This Chapter

- Asking customers to help you develop your ideas
- Mapping and redesigning processes
- Holding creative conversations by e-mail and in chat rooms
- Opening the creative process through crowdsourcing
- Tapping into your intuition for creative guidance

An old expression whose origins I can't guess at says, "There's more than one way to skin a cat." I don't want to skin any cats, but I do recall that saying whenever I feel stuck and unable to come up with the breakthrough idea I need for my own business or for one of my clients. Brainstorming (see Chapter 6) and its variants (such as the nominal group technique and concept sketching; see Chapter 7) are powerful ways of stimulating the imagination and focusing it on useful innovations. You can use alternative approaches, however — lots of them! This chapter helps you find new ways to bump up your own imagination, as well as the creativity of a group.

Using Customer Input for Inspiration

Many innovations have to do with product development, service improvement, or other matters with a marketing or sales orientation. If you're interested in improving what you sell or inventing something new to sell, try asking your customers for ideas, suggestions, or — even better — complaints. Why? Customer complaints give you insight into things that seem like problems to your customers, and problems for your customers are opportunities for you!

Collect and save all customer complaints so that you can dip into the file to see what's bugging your customers. If a lot of complaints have to do with lost or late shipments, you can conclude that you need to innovate the way that you ship products to your customers. If the complaints are more about the products and what they do (or don't do), you see that product innovation is in order.

Organizing a focus group

Sometimes, you need to stimulate customers to give you more specific or deeper input than you can get from casual complaints. After all, customers usually don't put much thought into ways to make your business more successful, so if you want their ideas, you have to ask them.

A common — and highly effective — way to get customer assistance is to gather a group of customers in a conference room (usually, you have to offer them some cash and/or free products as an incentive), show them a series of new product concepts, and ask them for their reactions.

You can gather customers yourself or hire a market research firm to do it, in which case you'll be shopping for what the research industry calls a *focus group*. The research firm will help you decide what kinds of customers you want in the room and will not only get them there, but also provide a professional moderator and a recording, plus a written summary of the findings.

These formal focus groups are often useful for evaluating product concepts that are already fairly well developed. If you want input and suggestions for new products, however, a less formal (and cheaper) do-it-yourself group may be for you.

To run an informal focus group, invite customers you know already, because they're likely to be easy to assemble and eager to help. Offer a half dozen to a dozen of your good customers breakfast or lunch, and ask them to commit to two hours of conversation about your products and services. If you don't have a good meeting facility in your offices, rent a conference room at a nearby hotel, and arrange for the hotel to cater the meal.

When the group is assembled, thank everyone for coming, and explain that you'll be asking them to share their ideas, suggestions, and criticisms to help you design a new product, improve customer service, or meet some other worthy goal that customers would find beneficial. Go to a whiteboard or chart pad on an easel, and write the topic at the top. Then go directly into facilitating a brainstorming session.

Capture any and all comments and suggestions, and use enthusiastic, positive body language and verbal praise so your customers feel that their input is valuable — whether you think it is or not! It's essential to produce a positive customer experience, because these people, after all, are your good customers. Praise and feed them well, and send them thank-you notes afterward. Also, if any ideas from the session get implemented, let the people who came up with them know; they'll be thrilled to learn that their input was useful.

Asking customers to fantasize about their ultimate product

Ask your customers about their fantasies for your products. It's a great way to come up with fascinating new ideas and possibilities for product development. You can ask individual customers one on one when the opportunity arises, or you can send e-mail requests to your whole customer list. You might even hold a contest on your Web site (sending a press release to the media to announce it) in which you solicit the most imaginative fantasy product in your product category.

Suppose that you could have the ultimate watch — one that could easily do anything and everything you might want it to do. What would it be like? Hmm. Let's see. Well, just telling the time isn't really that exciting in this day and age, because your cellphone, laptop, car, and microwave all tell the time quite accurately. But the watch of your dreams might do more exciting and useful things. Perhaps it would include a mini-GPS (Global Positioning System) chip that would keep you from getting lost, remind you if you're about to miss an important appointment, and prompt you to pick up flowers to take home for your wife on your anniversary. In other words, your fantasy watch would keep you oriented in many ways besides time.

Nobody's asked me to describe my own ultimate watch so far, but if a watchmaker were to do so, she might come up with interesting ideas for new product development.

Inviting customer input, both critical and creative

Invite customers to give you feedback or review a new design, either via one-on-one e-mail communication or in an informal focus group (refer to "Organizing a focus group" earlier in this chapter). What customers should you ask to evaluate design options or new product concepts? You might want

to ask just a representative sample of typical customers. Those people are the ones you want to sell to, after all. Asking the average customer is great if you simply want to see whether people like and think they'd buy a new design.

When you survey typical customers about their reactions to a new product design, have them rate the appeal of the design (as I discuss in Chapter 7) and also ask them to make choices. If they had to choose, would they buy your new design or one of the leading products already on the market? By asking members of your sample group to make choices, you simulate a shopping experience and may get more accurate information about how customers will react to your new design.

Another approach is to talk to *lead users* — sophisticated customers who can offer unusual insights on customer needs and wants. In business to business (B2B) sales, your sales force or sales reps can tell you who the lead users are because they stand out as being more sophisticated and successful than most. If you don't have personal contact with your customers, you may need to talk with a mailing-list broker about strategies for finding the most sophisticated users and contacting them to see whether any are willing to help.

Talk to the smartest, best customers when you want design ideas, not just simple reactions to completed designs. Lead users often suggest new designs or products that you can refine and introduce to the market with great success, as 3M has done. In B2B marketing, lead users are top companies that are innovators themselves; these companies can offer interesting ideas and suggestions to their suppliers.

Redesigning Processes

Process design is easiest when you work visually, which means process mapping or flowcharting. This method is great if you're working on a problem or challenge that involves a system, such as how to improve the quality of customer service in a hotel. The Ritz-Carlton Hotel Co., in fact, has used process flowcharting to great effect in improving the quality and reducing the cost of customer service.

To map and then redesign your own processes, follow these steps:

1. **Create a diagram that uses standardized symbols.**

   These symbols could include ovals for the start and end of the process, arrows for directional movement between steps in the process, rectangles for each step, and diamonds for choices or decisions (with two or more arrows going out of them to represent the options).

Figure 8-1 shows a simple flowchart for a call to the front desk from a hotel guest. This flowchart might be the initial one that you'd draw after asking a group to explain how a call from a guest to the front desk is handled.

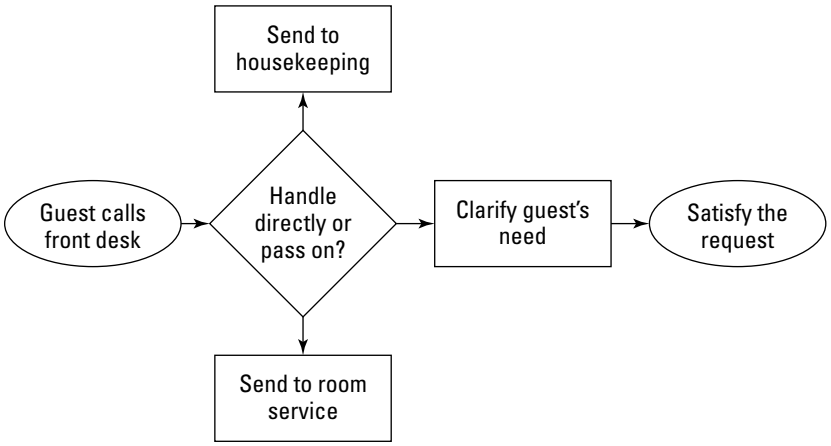


Figure 8-1: A simple flowchart of a customer-service process.

2. **Ask the group to discuss the initial drawing and decide whether it leaves anything out.**

   Often, the first drawing proves to be overly simplistic. Figure 8-1, for example, doesn't explain what happens if the guest needs a hotel engineer to perform a repair or if the front desk can't handle the request. Nor does it show when the desk staff should pass on a difficult caller to a manager. More steps and options must be added to make the diagram complete.

3. **Continue to expand and correct the drawing until you have what appears to be a complete flowchart of the way things are done now.**

   When the current process has been fully flowcharted, it will be much easier for the group to study and improve it.

   If necessary, create secondary flowcharts showing how hand-off processes work. To continue the example shown in Figure 8-1, what does housekeeping do when the front desk passes a call to it?

4. **Point to any step in the flowchart, and ask the group about ways to improve it.**

   You could ask questions such as these:

   - What could go wrong here?
   - Could someone else handle this task better?
   - Why is this step done this way?
   - Could we take any steps out of this process to simplify it?

- Where do things go wrong in this process most often?
- Are there better ways to perform any of the steps?

Encourage group members to ask their own critical and creative questions too.

5. **Based on the group's feedback, use the flowchart symbols to diagram possible alternative designs.**

   In the hotel example shown in Figure 8-1, it may make sense to reduce the number of times that the front desk hands off customer calls. Hand-offs frustrate customers and introduce the possibility of problems such as dropped calls or busy signals.

The visual quality of the flowchart diagrams will help your group (or you, if you're working individually) to see many possibilities that are hard to imagine in the abstract.

Taking Advantage of E-Mail

Of the millions of e-mails sent and received every day, very few ask for creative input. How many times have you received an e-mail saying, "What do you think about X? Can you please send me some ideas?"

Why don't we use e-mail to generate ideas? That simply isn't part of the convention for the medium. E-mail is used as a vehicle for telling or asking people to do things, catching up with people, complaining about what people have done, or sharing general information efficiently. It usually isn't used for brainstorming. E-mail is a really, really good medium for generating ideas, however, because e-mail makes it so easy to contact people wherever they are and ask for their input.

Including a provocative question or situation

"What if…?" e-mails are good for generating fresh ideas. To create such an e-mail, you could use "Request for creative suggestions" as your Subject line; introduce the e-mail by explaining that you're asking for help on brainstorming initial ideas, including impractical or fanciful ideas; and then offer a scenario (a short what-if story) about your topic that imposes some kind of limitation and asks, "What would you do if you couldn't . . . ?" or something like that.

The limitation is a form of *provocation* — a mental challenge that stimulates fresh thinking. If you don't provoke creative thinking somehow, your e-mail replies will simply be the same old thoughts that people usually have.

The Commonwealth Fund, a charitable foundation in New York City that focuses on ways to improve the healthcare system, sent e-mails to pediatricians asking them how they would provide well-child care if a disease (such as a bad flu strain) closed down the outpatient medical offices that they normally used to see their patients. Doctors came up with lots of ideas for delivering routine healthcare to children without using their offices, such as providing services in schools, through TV broadcasts and Web sites, and via parent training. Although the actual scenario is unlikely to happen, many of the ideas were of general interest because they could supplement the current system of patient care.

The main point of interest for the purposes of this discussion is this: Hundreds of health professionals answered The Commonwealth Fund's e-mail. The foundation collected numerous suggestions without having to gather a group of people and run a time-consuming, potentially costly brainstorming session. You can take advantage of the economy and ease of e-mail brainstorming too.

Designing your e-mail for thoughtful consideration

Make sure that your e-mail has clear signals that mark it as an open-minded request for creative input so that it isn't handled like a normal e-mail. Normally, people spend fewer than 30 seconds replying to each e-mail, so to generate useful ideas from the recipients of your e-mail, you have to slow them down and get them to think about your question for at least a minute.

Here are a few ways to get recipients' thoughtful attention:

- **Make the case that it's important to get the recipient's help.** Include a brief (one to three sentences) description of the situation, explaining why you need creative ideas now and what you'll do with those ideas to solve a problem or improve a situation.
- **Use a provocation, such as an unusual scenario or examples of creative ideas that the recipient can use as a springboard.** For more information on provocation, see the preceding section.
- **Specifically ask for at least a minute of undivided attention and thought.**
- **Give the recipient a short time frame for replying (such as within the day or the week).**

- **Include five to ten times as many people in the e-mail list as you'd invite to an actual brainstorming session.** When you solicit ideas by e-mail rather than in person, you'll get fewer ideas, because e-mail recipients won't put very much time into answering your request. A few dozen people is a good minimum for your list.

When you use these five elements, your brainstorming e-mail ought to produce interesting responses. Follow up with a thank-you e-mail and a list of all the ideas offered (minus redundant ones). Ask your recipients to reply with any additional ideas that they may have had in the interim. The combination of the passage of time (which permits incubation to occur) and the list of other people's ideas often stimulates another crop of interesting replies.

When you complete your project, e-mail your contributors one final time, summarizing what you ended up doing and thanking them again for their help with the brainstorming stage of the project. They'll feel good about their participation and will be eager to help again.

Holding an e-mail contest for best idea

A contest can produce a flood of interesting e-mails. You can announce that you're holding a contest for something like a new name or logo, new product concepts, or the best way to solve a problem. Recognition generally is the best prize: The winner gets the honor of seeing his idea turned into reality. Make sure that you provide a ceremony, a naming opportunity, or some such form of recognition for the winner. Also consider providing a tangible reward, such as a generous gift certificate, cash prize, or trip. Creating excitement about a contest is a surefire way to generate participation.

Competition is a controversial topic in creativity research. Some scholars find that competition reduces the creativity of suggestions and designs, but others have found it to be helpful because it produces persistent effort.

Your contest may produce a fabulous idea, or it may not, so be sure to use other forms of brainstorming. Using diverse approaches is the best way to ensure that you get diverse ideas.

Engaging in creative e-mail conversations

You can also engage in e-mail discussions of a problem or design. Think of these discussions as creative conversations. It takes at least two interested parties to hold a conversation, of course, so you'll need to identify colleagues who are as interested as you are in solving your problem or improving your design. That selection process will limit your list — usually, to fewer than a dozen people.

Send each of your highly interested colleagues an organized summary of your thinking so far, and identify the problems or puzzles you're concerned about. Ask each person to reply with any suggestions or ideas that could move you ahead. Then reply to each response individually and thoughtfully, asking questions and probing to clarify or deepen your colleagues' thoughts.

In essence, what you're doing is conducting one-on-one brainstorming sessions via e-mail. This kind of creative conversation can go many rounds, leading to the exchange of dozens of e-mails if the topic is challenging.

Often, it's easier to have a lengthy conversation with someone via e-mail than in person, because both of you can work your answers into your busy schedules instead of having to block out a day to meet and talk. Also, by engaging in multiple e-mail conversations, you can *cross-fertilize* ideas from one person to another. Bring an idea from one person into your conversation with another person to ask for her reactions or see whether it stimulates a fresh idea from her.

Crowdsourcing for New Ideas

Smart mobs are groups of people whom you've focused in a productive direction, often by asking them for their ideas or suggestions, and sometimes by asking them to vote on the best of a set of ideas, designs, or options. An old-fashioned way to create a smart mob is to hold an election — the premise of democracy. A more modern way is to use *crowdsourcing,* which is the planned use of viral-media platforms to solicit ideas and reactions. Crowdsourcing can tap into the latent intelligence of large groups of people, turning them into smart mobs to help you innovate.

You can tap into any professional network to get expert input, or you can go to the general public for a wider range of possibly naïve — but also possibly more creative — ideas and suggestions.

If you're looking for a new brand name, consider posting a challenge to customers on social-networking sites such as Facebook and MySpace. (I assume that you already have pages for your business on these sites; if not, see my book *Marketing For Dummies* [Wiley] for tips on how to use these Web platforms.) You can offer a prize for the winning submission if you think that doing so will boost participation — which it often does. Also, send out a press release announcing the contest, and encourage both traditional reporters and bloggers to pass the word along. A contest to name a new product can create significant buzz and attract a lot of attention, potentially attracting thousands of participants to brainstorm with you.

Getting more help with your crowdsourcing

If you need help running the process of crowdsourcing ideas, look up the topic in a Web search engine, and you'll come across several companies offering solutions, including the following:

- **InnoCentive** offers a Web-based idea marketplace (at www.innocentive.com) where Seekers post requests and Solvers (more than 100,000 of them) offer suggestions. If a suggestion is adopted by a Seeker — some company or charity in need of help — the Solver wins a financial reward. You can sign up in both Seeker and Solver categories and begin to experience open innovation firsthand.

  As you'll see if you join, InnoCentive keeps the identities of both Seekers and Solvers confidential and handles all aspects of their contractual relationships (such as licensing of intellectual property; see Chapter 17). The protection of identities is an interesting aspect of InnoCentive's approach to crowdsourcing that makes large companies more comfortable with the process by reducing their fears of being sued by the authors of unsuccessful inventions.

- **Mom Invented** (www.mominventors.com) sources its products from thoughtful mothers who come up with labor-saving, clever devices and don't know how to market them. The mother of a finicky eater, for example, designed a plastic cutter that trimmed the crust off a sandwich and sliced it in half with a single motion. Mom Invented now markets a line of Mini Bites Sandwich Cutters based on that idea and pays the inventor a 5 percent royalty. Everybody's happy! The business model is based on the concept that thousands of mothers are out there thinking of good ideas and will send them to the firm that publicizes its interest in crowdsourcing. The concept seems to be working pretty well.

  Mom Invented has a unique set of products that I doubt anybody in a laboratory would have come up with. Take a look at the Web site to see what I mean. Then see whether you can tap into the creative ideas of a group of people whose experiences might make them good inventors for your product line!

- I'm particularly impressed by the offering from Cambrian House: **Chaordix,** a systematic method and platform that makes it easy to crowdsource on a large scale. See www.chaordix.com for details.

- Also visit **IdeaConnection** (www.ideaconnection.com) for another example of an idea intermediary that connects people based on their ideas and idea needs.

Keep in mind that any vendor is going to charge you for help with your project, so you may want to see what you can do on your own first, going to expert vendors only after you've exhausted your own capabilities.

An old-fashioned suggestion system simply involves putting a box with a slot on top in a prominent part of the workplace and asking employees to drop their ideas into it. You can do the same thing today by using a picture of a suggestion box on your Web site. Have participants enter their ideas (for a new product, for example) on a form that looks like a scrap of paper. When a user clicks the Done button, his idea slides into the slot on the top of the box — virtually, of course. Once a week, empty the box, post the ideas, and announce a weekly winner. At the end of the month or season, select the

overall winner, and hold a press event to present the winner an Innovator of the Year award or something of that sort.

Even companies as large as Procter & Gamble (which has more scientists on staff than Harvard, Stanford, and the Massachusetts Institute of Technology combined) sometimes go outside for ideas. P&G queried thousands of scientists around the world for their suggestions on how to control wrinkles in fabric, and it ended up signing contracts with several of those scientists to do product development based on their ideas.

Going Deep for Intuitive Insight

Intuition is variously defined as looking within for insight, tapping into tacit knowledge (what you don't know that you know), using preconscious thought (ideas that pop into your head right away without apparent effort), or using the subconscious (thoughts and feelings you're not aware of).

Intuition is probably central to the creative process, but researchers fail to agree on this point — or on virtually any other. What everyone *does* agree on is that creative thinking may draw on logic and analysis, but in the end involves a leap of understanding that's very different from logical, step-by-step problem-solving. Some people call this creative leap *intuition;* others call it *creativity;* and still others call it *insight, imagination, instinct,* or *gut feeling.*

When you talk about intuition, you get into some interesting related ideas, because some people feel that intuition taps into the spiritual or magical aspects of the world.

Do you believe in intuition? It's an interesting question, because it gets you thinking about how you make decisions. Do you rely on logic, or are you comfortable with an answer that feels right but that you can't explain logically?

If you're among those who see something magical or spiritual in the operation of intuition, saying that you believe in relying on your intuition could imply that you accept a spiritual or religious influence or that you believe in fate. But for the topic of this discussion — innovating in business — it's not necessary to sort out exactly how intuition works or whether any deeper force is at work behind it. You can just take advantage of the fact that intuitive approaches complement more-systematic ones and really do help produce creative insights.

At its worst, intuition is associated with New Age approaches involving the use of crystals, chants, and candles. At its best, it's associated with experienced executives who size up a situation and instantly know what to do, or with experienced inventors or entrepreneurs who take one glance at something and instantly know how to make it a whole lot better — possibly making some serious money as they do so.

Using naturalistic decision-making

Intuition is beginning to get some serious attention among researchers who study decision-making for the U.S. Army and Air Force, where formal, logical methods don't seem to work as well in action as more naturalistic methods do. A field called *naturalistic decision-making* (NMD) has emerged, and researchers are increasingly appreciating an expert's ability to size up a situation, draw a rapid (and apparently intuitive) conclusion, try a course of action, and adjust again quickly if the feedback isn't what he expected.

So intuition definitely has a role in the workplace. How can you tap into your intuition in helpful ways as you try to make your mark as an innovator? For starters, use incubation (sleeping on a question of challenge overnight) to allow your own intuition to offer up possibilities. Also make a practice of asking experts for their ideas in casual, face-to-face conversations. Sometimes, an off-the-cuff remark by someone will reveal an intuitive insight that you can develop into a great new approach or option.

Going back to nature

Imagine someone who's struggling to figure out the direction in which she wants to take her career. She might do well to take a weekend trip to the countryside, visit a waterfall, take a long walk, and generally get in touch with nature. What will happen to the problem she's incubating as she takes this trip? It will probably begin to clarify into a new conviction about what's really important to her and what she wants to do with her life. It's very hard to come back from a trip to the countryside without some sort of clarity that you didn't have before. Intuition bubbles up with ease when you get out of your normal high-pressure environment.

I know some innovators who bring nature into their workplace to help them think clearly and creatively. They use fountains or small water-bubblers, lush potted palm trees, Zen rock gardens, or bonsai trees to help them get in touch with their intuition.

Other people swear by a relaxing yoga program or a long swim in the nearest lap pool. I've tried the latter technique and (especially if I take a swim break at lunch) have been pleasantly surprised by the ideas that pop into my head.

Asking a wise elder

Do you know anyone who fits the description of a wise elder? Someone who's seen and done a lot and now is good at listening to the troubles of younger people and asking penetrating questions to clarify their thoughts? Admittedly, many people are just as stupid in their old age as they were when they were

younger, but some people seem to actually grow wise. Take advantage of their wisdom! Ask them for guidance.

Using soothsaying techniques

If you aren't skilled in *soothsaying* — the magical foretelling of events — don't worry; there's a book called *Soothsaying For Dummies.* That's the good news. The bad news is that this book is imaginary, existing only in the electronic game World of Warcraft. I guess that the publisher of the *For Dummies* series doesn't think that anyone in the real world will seriously need a reference to soothsaying, but in fact, some of the methods that fall under that heading can be useful ways of stimulating the intuition. In this section, I discuss two popular soothsaying methods: Tarot cards and the I Ching.

Runes, ancient bones, and any other soothsaying methods that you may want to try don't so much tell you what to do as help you unlock or clarify your own insights. They're tools for tapping into intuition. If you don't know exactly how they work, so much the better, because the very definition of intuition involves a certain amount of mystery — intuitive thoughts being those that you find hard to explain or justify to others.

Tarot cards

Do you have a deck of Tarot cards on hand? If so, try drawing a card while holding your challenge in mind in the form of a question. Then interpret the card you draw and see whether it helps you understand your question.

You could ask the deck, "What should we do about the rising competition and loss of profit margins in our main product line?" Suppose that you draw the Fool — a card showing a jester walking near a cliff, with his belongings in a bag tied to a stick across his shoulder and a little dog trotting along beside him. Now you just have to interpret this card in a way that helps you answer your strategic question:

- As any guide to Tarot-card meanings will tell you, the Fool symbolizes the beginning of a journey, which suggests that you'd better be prepared for a major project. This character is happy-go-lucky and not very mindful of the nearby cliff that he might fall over. Clearly, your main product line is in danger!
- On the bright side, the Fool may have what he needs to solve any problem, packed in that sack he carries. He just has to stop and unpack it. With this thought in mind, you might take a careful look around your company for some good ideas for inventions that could revitalize your product line, making it more competitive and less subject to profit erosion.

I'm a little embarrassed to admit it here in print, but I sometimes do Tarot-card readings for clients. Why? Because they can provide real insight. I think that the cards tap into intuition by providing interesting and unusual images, challenging people to apply those images meaningfully to their own situations.

Tarot cards are used in some parts of the world for games, and I believe that in those places, the cards aren't considered to be useful for soothsaying. (Too familiar, I suppose.) But if you don't know the games that the cards are used for, they become mysterious and otherworldly, helping you tap into deep-rooted intuitions.

You can go online and find any number of Web sites where you can do a virtual Tarot reading and get help interpreting the cards. I don't know whether these sites are as accurate as a traditional Tarot deck — and maybe it doesn't really matter — but they do save you the cost of the cards and an interpretive booklet. If you decide to buy your own deck, you may as well start with the Rider-Waite deck illustrated by Pamela Colman Smith, which is considered to be the most authoritative of the many designs now on the market. You may also want to consult *Tarot For Dummies,* by Amber Jayanti (Wiley), to find out more about the practice.

I Ching

The I Ching, an ancient set of Chinese divination symbols, can also be useful for exploring a tough problem or working on a business strategy. If you want to try it, pick up a book, or find one of the many Web sites where you can "throw the bones" for free and see what you get. Use the I Ching as you would a Tarot deck, posing a tough question about how to solve a problem or what to do in the future, and see what ideas you get from the reading.

Being inventive

The lone inventor is a person of almost mythical proportions who, through a mix of hard work and brilliant insight, is able to see things others can't. It may be that people with dozens of patents or scientific prizes to their names are brighter than most, but on average, inventors are rather ordinary in most ways; they simply behave differently from other people.

Thomas Edison, for example, didn't choose to spend his time campaigning for votes; he preferred to tinker in the laboratory. He didn't think of himself as being particularly intelligent. He focused on persistence and often told stories about the number of failures he experienced before coming up with a winning design. I think that his particular brilliance was in knowing that there ought to be some way to make an electric light bulb work. That much, his intuition assured him of. But what was the correct material for a filament

that wouldn't burn out? Edison wasn't sure, so he kept trying different materials until finally he hit on one that worked — which confirms his adage that genius is 1 percent inspiration and 99 percent perspiration!

Being an inventor means following up on those hunches or intuitive thoughts with hard work. If you put in enough effort, you usually can figure out how to make something that you imagine into something that really works. Edison's formula is probably correct, though: You can expect intuition to get you 1 percent of the way, and you'll have to sweat out the rest the hard way.

Chapter 9

Turning Problems into Opportunities for Innovation

In This Chapter

- Approaching problems with an innovative spirit
- Using analytical problem-solving methods with an innovative twist
- Being a restless creative thinker looking for breakthrough solutions

Often, a problem — especially a problem of crisis proportions — does more to focus attention than any innovative idea can. Executive decision-making comes to the fore when problems arise. We talk about having to make hard choices when a profit shortfall occurs, an employee's performance is poor, or a new product or technology isn't panning out as expected. A hard choice or tough decision really means that you have to choose among unpleasant options, and you don't have an attractive choice in the menu of obvious possibilities.

Whenever you think that you have a tough choice to make, step back and see whether you can improve your options through creativity and persistent innovation. This chapter shows you how to turn problems into innovations by reframing them as opportunities to rethink things and push positive changes through in a hurry.

Seeing Problems with a Fresh Eye

A fresh eye means seeing things from different perspectives and gaining insight that other people lack. You desperately need a fresh eye to help you see the possibilities in a problem.

Framing problems as creative opportunities

Reframing means changing the mental view. When you reframe a problem, you take a different perspective, often by changing your definition of the problem. Instead of seeing a cash-flow crisis as the result of overspending, for example, you might redefine the problem as a failure to manage cash flow tightly. Reframing a problem helps you see alternative solutions to it.

Tackling a survival exercise

Here's a simple scenario to exercise your innovative problem-solving. Imagine that you've been shipwrecked on a deserted, sandy island with no natural source of water, and you must survive until you're found — perhaps for a week or two. The island has some coconut trees. You find a few cases of water in old-fashioned glass bottles with non-twist-off lids, left behind years ago by someone who built a simple thatch-roofed shelter on the beach. A big old bucket is positioned at the lowest corner of the hut's roof to catch rainwater, but it's bone dry now, and there's not a cloud in the sky.

It's hot, you're thirsty, and you desperately need a drink, but you don't have a bottle opener. How are you going to remove those rusty, stiff metal caps from those fragile glass bottles without breaking the bottles and spilling their contents? You decide to go for a walk along the beach to look for some natural tools.

When I challenge people in a workshop to solve this problem, they often ask me questions to help them think it through. Asking probing questions (doing your creative research) is always a good idea! So if you have questions, I can tell you that yes, the hut was made with local materials plus stuff from wrecked ships, such as rope and nails. Also, there are rocks, shells, and sticks of all sorts on the beach. But no, there's no hidden toolbox on the island.

The first thing you need to do when you face a problem such as this one is decide to generate as many ideas as possible. That decision is a very important one to make when you're facing any problem, fictional or real. Students train in school to solve closed-ended problems, which have just one correct answer and usually one correct process for finding that answer. (If $x = 2$ and $xy = 6$, what does y equal? 3, right?) But most real-world problems are open-ended, meaning that you have more than one possible way to approach and solve them. In business, the most important problems never have a formulaic solution, so if you stop with just one answer, you'll miss other possibilities that might prove to be more advantageous.

Solving the survival problem

Okay, back to the problem of how to get a drink when you're stuck on a sandy island without a bottle opener. How many ways did you think of? Here are some ideas that I came up with when I first thought about this problem, in the order in which I generated them:

- Break the top off a bottle with a rock, hoping that I can save at least half the water and not contaminate it with glass shards.
- Look for a shell that could work as a natural bottle opener.
- Find a strong clamshell and a sharp rock. Use the rock to shape a notch in the shell that would snag the underside of a bottle top and lever it up, the way a bottle opener would.
- Clean out the old bucket, break all the bottles in it, and let the glass settle to the bottom. Then ladle out the water at the top of the bucket, using a scoop made from a shell or a coconut.
- Split open some coconuts, and drink the water inside them instead of worrying about those old bottles.

Which answer is the correct one? Hmm. Beyond the obvious fact that my first idea was pretty bad, it's not easy to say which is best. I *do* know that one of these ideas might be easier and more effective than any of the others in actual practice and that if I began to experiment with ideas such as these, I'd certainly find a way to keep myself hydrated until help arrived.

A classic creativity test asks people to think of as many uses as they can for a brick. Sounds dumb, I know, but try it sometime; it's not as easy as you may think. Practiced innovators generate many more ideas than other people do. Can you break ten?

Postponing the decision to allow time for creative thought

Innovators tend to take longer to generate ideas and options than ordinary people do, because they see problems as opportunities to exercise their creativity. They eagerly jump at problems, even contrived exercises such as how to open bottles without an opener or what to do with a brick, because creative problem-solving improves with practice. If you think of yourself as creative and look for opportunities to test your creativity, you'll continually improve your problem-solving skills.

Using creativity prompts

Use external reminders of the value of creativity to boost creative output. You can use simple influences such as a favorite quote about creativity, an inspiring picture or melody, or a clever ad or product as props to stimulate your imagination.

Here's an odd fact: When researchers administered the think-of-uses-for-a-brick test to a group of subjects, the subjects who had just been exposed to the Apple, Inc., logo came up with more creative ideas than those who saw the IBM logo just before doing the exercise. Why? Apple's brand identity reminds people to be creative, whereas the IBM brand evokes more logical, closed-ended problem-solving. A corporate logo is a small external influence, but even so, it proved to be enough to increase innovative problem-solving.

Approaching problems with optimism and hopefulness

It's easy to be thrown off balance by a problem, especially if it's unexpected. You can slip into a pessimistic viewpoint without even realizing it. When something bad happens, or a problem or challenge arises, be careful to avoid the pessimism path by following this advice:

- **Don't blame yourself unduly.** You're not stupid, and you aren't doomed to fail at everything you try! Self-talk needs to be positive and encouraging. We're our own worst enemies when it comes to the things we thoughtlessly say in the face or an error or problem. Take control of your self-talk!
- **Blame the process, not people.** One of the principles of quality improvement is to blame the process, not the person — that is, you should look for problems in the way you do business (such as lax controls), rather than assume that someone else is at fault. When other people try to blame you for a problem, turn the situation around by asking them to help you think of ways to make the problem less likely to recur. Redirect the focus to the external causes, and talk about innovations that would prevent such problems or solve them effectively in the future.
- **Look for openings created by the problem.** A small problem opens the way for small changes, and a big problem or a crisis opens the way for major changes. Every problem creates momentum for change, and as an innovator, you can use that momentum to good effect by introducing new ideas, practices, or products that people might have ignored or resisted if a problem hadn't come along to get their attention.

These three strategies help you overcome a reactive approach to problems, which I call *circling the wagons:* People get worried and try to fall back on traditional or conservative approaches instead of innovating. Usually, problems are at least partially due to traditional approaches, so trying to return to traditions in the face of a problem is a pretty useless form of denial. If you avoid playing blame games, seek understanding of the root causes of the problem, and look for openings to introduce change, you'll innovate your way out of most problems with ease.

See Chapter 3 for more information on how to maintain and spread an optimistic attitude so as to stimulate creative thinking and maximize the chances of successful innovation.

Applying Analytical Problem-Solving

You're taking a creative approach to problems, which is great! Don't forget, however, that analytical approaches can be powerful complements to creative thinking. In fact, unless you happen to think of a brilliant solution right away, you should do your homework and analyze the problem before proposing an innovative response. The analytical process enriches your creative thinking by helping you understand the problem more fully.

Using Dewey's problem-solving process

The modern, rigorous approach to problem-solving was best described by John Dewey (the man who also invented the Dewey Decimal System for inventorying library books) back in 1933, in a groundbreaking book called *How We Think.* Dewey provided a deceptively simple but powerful three-step process:

1. **Define the problem.**
2. **Identify alternatives.**
3. **Select the best alternative.**

Included in these three steps are all the key activities required to analyze a problem and come up with an innovative solution. If only more people would adopt Dewey's method, there'd be a lot more progress and a lot fewer problems!

Defining problems with creative insight

When you start with a careful effort to define the problem, you almost always discover that the problem isn't what it seemed to be at first or what other people told you it was. As a consultant, I'm very used to being called in to deal with a problem that proves to be poorly defined, as most business

problems are. Problems get misdiagnosed in business for the simple reason that people notice symptoms of the underlying problem and leap to a diagnosis based on the initial symptoms. As in medical illnesses, business symptoms may have many root causes, and it takes a careful analysis to figure out what's really going on.

Use the problem-definition stage to reframe the problem and gain insight into it. Often, the greatest creative insight comes during this first stage, in the form of a new and better way to define the problem.

Brainstorming real alternatives that expand the solution set

The second step in Dewey's problem-solving method is thinking of a bunch of possible solutions, or a *solution set.* Usually, people make do with a fairly narrow solution set that lacks in both quantity and variety or originality of options.

Who or what is *really* to blame?

A new client recently told me, "Our managers need leadership training. They aren't very good leaders. We need you to train them." I asked, "Why do you have bad leaders? Didn't you seek out managers with leadership credentials in your hiring?" The client replied, "Leadership was part of the job description, but they don't seem to be doing it now."

Persisting in my effort to define the client's problem, I asked, "How do you know the managers are bad leaders? What's the evidence?" "There's a lot of complaints from employees," my client explained. "And employee performance is poor." I still didn't understand the problem, so I asked, "Have you considered any other possible causes for employee complaints and poor performance?" He replied, "No. What else could it be?"

Then our conversation went into a fact-finding phase that helped clarify the actual problem. We ended up scrapping the idea of a leadership workshop and instead looked into the ways that employees' work was being structured and supervised. We found three urgent problems that needed fixing:

- A lack of time for managers to supervise employees and review their performance
- Inconsistencies between what employees were asked to do and what their performance review system recognized and rewarded
- Uncertainty about the organization's strategic direction and future stability

These three problems produced the symptom of dissatisfied employees who weren't working as efficiently and effectively as they could. By asking probing questions, I discovered that the client had defined the problem incorrectly and was about to spend time and money on a quick fix that wouldn't actually improve anything.

You should assume that any problem you encounter needs to be redefined, just as this one did.

Consider more than one basic approach, and develop at least three — preferably six or more — viable options. Your outcome is strongly affected by the size of your solution set.

Coming up with a healthy variety of possible solutions to a problem is fairly easy if you have experience with brainstorming, both alone and in groups. Use as many of the idea-generation techniques from Chapters 6, 7, and 8 as you can. Don't stop brainstorming until you have several options that have significant merit. Refuse to be forced to choose among a few narrow options that don't give you good outcomes, because there's always another way.

Selecting a solution wisely and well

When you're sure that you've defined the problem clearly and with insight, and you're sure that you've generated more than the normal selection of options, you're ready to choose the best solution. But which solution is best? In my experience, businesses very often look at fresh, new ideas but then revert to a traditional solution that fits old habits of thought and doesn't necessitate change on the part of the people who'll be asked to implement it.

In other words, the most popular solution to business problems is the most *familiar* of the various options. As you no doubt know, familiarity doesn't guarantee quality when it comes to solving a problem. In fact, a less comfortable and more innovative solution usually would be far better than the familiar one, but uncertainty and fear hold people back from opting for the innovative approach. Therefore, my first and most important piece of advice to you as you consider possible solutions for any business problem is this: Watch out for the bias toward the familiar! This bias blinds many organizations and managers to better options.

Here are some better ways to choose an option from your list of possible solutions to a problem:

- **Use comparative analysis.** List the specific features of each choice (such as cost, benefits, and time frame) in a comparative table so that you can compare the options on an equal footing.
- **Brainstorm lists of pros and cons for each option; then choose the one with the most going for it and the fewest problems.**
- **Build a future scenario — a fictional account of what your business will be like — for each of the possible solutions.** Go into detail, asking for input from the people who know the most about the affected areas and operations. Then compare the future scenarios, and pick the most appealing one.

Notice that none of these methods of choosing a solution involves a popular vote. I'm skeptical about putting complex choices up for a vote. With a vote, you're liable to fall prey to the appeal of the most familiar option rather than get the best one. I recommend voting only if you have a select group of experts who were all involved in the research and who thought about the options; otherwise, your efforts to be democratic may backfire. (The exception to this rule is a *collective* or staff-run organization. In a collective, the entire staff is involved in strategic decision-making and usually can tackle tough decisions in a sophisticated fashion.)

Performing a payoff analysis

Another way to select the preferred solution from your list of candidates is to perform a rigorous payoff analysis. This method — a staple of MBA programs — needs to be modified slightly to produce innovative results, but it can be quite helpful.

Suppose that you have a variety of options and don't know which is best. That situation is common in business, after all. You may have a chance to invest in a new product or startup company, a choice of several strategies, or uncertainty about which of several possible cost cuts to make. Which is the best path?

A logical way to compare several choices is to calculate the payoffs (often defined as *profits* or *returns on investment)* for each option and then pick the one that pays the most. But what if you don't really know how well each option will pay off? It's hard to forecast the future with certainty. If you're unsure, make low, medium, and high forecasts for each of your options. Ideally, that way you're bracketing what will really happen, and you'll be prepared, no matter how well or poorly things go.

Creating a payoff table

Use a *payoff table* to compare options and possible outcomes. A typical table contains three options and three projected outcomes for each option. Some payoff tables include a column for probability next to each outcome to let you multiply the payoff by the probability before summing to calculate the overall average payout. Other tables are used to aim for the highest possible payoff, and still others are used to identify the option that involves the lowest possible loss.

Payoff tables can help you achieve your goal, whether it's conservative or aggressive. It's up to you to decide how to set up and read the tables based on your priorities and the quality of your information.

Figure 9-1 shows a payoff table for three levels of investment in a new venture: a 5 percent stake, a 25 percent stake, and a 50 percent stake. Which level of investment makes the most sense?

	Invest:	Earn % of Profit:	Payoff after 2 years at 3 levels of profit: –$50,000	$150,000	$300,000	*Average:*
Option 1	*$10,000*	5%	–$2,500	$7,500	$15,000	*$6,667*
		ROI:	–25%	75%	150%	*67%*
Option 2	*$45,000*	25%	–$12,500	$37,500	$75,000	*$33,333*
		ROI:	–28%	83%	167%	*74%*
Option 3	*$80,000*	50%	–$25,000	$75,000	$150,000	*$66,667*
		ROI:	–31%	94%	188%	*83%*

Figure 9-1: Comparing options with a payoff table.

If the venture in Figure 9-1 does well — meaning that it reaches the high profit projection of $300,000 — clearly, you'd like to have the highest possible stake in it. A 50 percent ownership investment costs $80,000 and, in the best-case scenario, would produce a $150,000 profit, for a return on investment (ROI) of 188 percent. (ROI equals profit divided by investment.) But what if the worst case happens, and the venture produces a loss of $50,000? In that case, you'd lose $25,000 by investing $80,000 — the least desirable outcome. A more conservative approach might be better.

The payoff table in Figure 9-1 averages the three levels of payoff to calculate an overall return for each of the three levels of investment. The third option — investing $80,000 — gives the highest return on average, so it may be the best option in spite of the higher potential for loss.

It makes sense to average the possibilities if you think that they're about equally probable. Otherwise — if, for example, you think that the first scenario is twice as likely as either of the others — you can refine your calculation by weighting the most probable option more heavily (such as by doubling it).

Boosting your payoff with creativity

The payoff table in Figure 9-1 is a classic business-school tool that can help you compare options and make more intelligent choices, which often helps you choose among options you've developed in a creative strategy session. It's a good tool, but it's not very innovative. What if you bump up payoff analysis by making it more creative? Here are some steps that can improve your payoff:

1. **Brainstorm more options.**

   There always seem to be just a few options in those payoff tables. Why? If you push ahead to come up with three more options (six total), you may hit on one that pays off at higher rates than any other. If you're comparing options that have been laid out to you by other people, do some creative negotiating to see whether you can shake more and better options out of them to sweeten the deal.

2. **Maximize the profits.**

   A payoff table usually uses low, medium, and high projections in an effort to bracket the likely range of outcomes. That's fine, but what if you could increase the payoff by innovating in the implementation stage? A really stellar creative effort could help you achieve a "very high" outcome. If you're willing to put your effort and imagination into the implementation, it's plausible to add a fourth column to your payoff table to project an exceeds-expectations or very-high outcome along with the low, medium, and high ones.

3. **Minimize the losses.**

   It's possible to find creative ways to buffer yourself against losses if the worst-case scenario occurs. Spend some time brainstorming ways to reduce risk and minimize the negatives. Can you cut a creative deal that protects you from some of the possible risks, for example? Could an insurance company provide a policy?

4. **Improve the quality of the projections.**

   Better forecasts reduce the chance of guessing wrong, and a creative problem-solving effort aimed at making better forecasts can help narrow the range between your high and low guesses. Take some time to look for more and better examples to compare your situation to. Collect alternative forecasting tools and try them out. (Have you conducted a survey or a focus group, for example, or looked at trends in competitors' sales?)

The creative problem-solver takes an innovative approach to business choices and isn't limited by the initial set of options in his payoff table. Treat this table as a starting point for your analysis, planning, and imagining, and you'll make better decisions than most people do!

Engaging Your Creative Dissatisfaction

Executive decision-making often takes the form of making informed choices. Forecasts and payoff tables help make your choice more informed, but they don't improve your options — just help you choose among them. The innovative executive doesn't just want to choose among options; she also wants to improve them. Executive decision-making ought to involve innovation, not just selection. If you don't see a great option, stop and think. Maybe you can improve the options before making your choice.

Recognizing the opportunity to be creative

How do you improve your options before deciding? Simple: Be dissatisfied. As I say repeatedly in this book, the first and most important step in innovation is deciding that you want and need to be creative. The next time the world dishes up a choice of options, reject the "Which one?" framing, and restate the problem as "Why be limited to these options?"

I use the term *creative dissatisfaction* to describe the way that innovative decision-makers work. It's amazing how often you can — and will — find a better choice after you engage your creative dissatisfaction. Be assertive about demanding more time, thought, and information. Incubate the problem overnight. Ask others what they think. In short, engage all the creative-thinking tools you know about (see Chapters 6, 7, and 8), and turn the process of decision-making into an opportunity for creative thinking, not just for choosing among existing options.

Figure 9-2 shows what happened when a company that made industrial cutting equipment was examining options for three new product designs. After testing prototypes and showing them to core customers, the sales force projected low, medium, and high sales for the three designs.

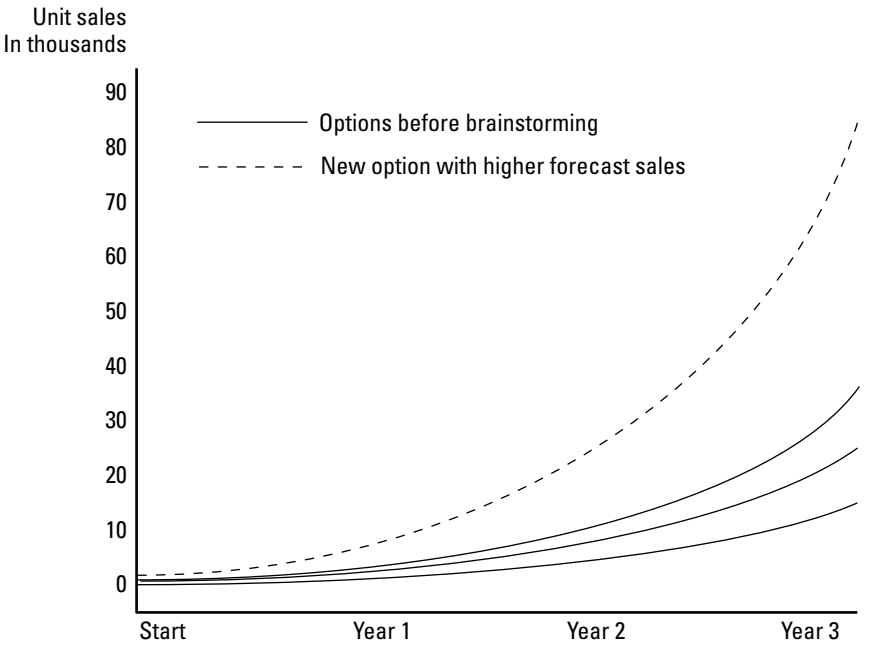


Figure 9-2: Improving the payoff by adding options.

Although the design with the highest sales projections was somewhat more costly to make than the other two, the executive team was eager to capture the most possible sales and was about to choose that option. Then one of the executives asked for some extra time to examine the three prototypes and think about the question. A week later, he presented a fourth design that combined good ideas from the other three but was made from off-the-shelf parts, which allowed for much lower production costs and pricing. The sales force was very excited and projected unit sales for this newest design at more than twice the level of the other three. Without a creative rethinking of the options, the company would have invested in a mediocre product that didn't sell nearly as well as the one it finally selected.

Considering the opportunity costs of not innovating

Neat payoff spreadsheets, graphs, and tables make your choices look fixed and discourage you from doing more creative thinking. Watch out for this effect! No matter how neatly a decision is presented in a payoff table or other businesslike format, it's still possible to come up with even better choices. The official term for failure to see and pursue a better option is *opportunity cost.* You don't pay opportunity cost now; you pay it in the future, when some competitor comes out with a better design and your own sales fall, making you wish that you'd taken more time to improve your own design.

In Figure 9-2, the opportunity cost is represented by the distance between the highest solid line and the dashed one. Without innovation, the best-case scenario is significantly worse.

Applying intuition along with logic

How do the great inventors and entrepreneurs come up with their breakthrough ideas? Not by constructing payoff tables and lists of pros and cons. Those and many other analytical activities — such as reading about the field and talking to experts — simply set the stage for a breakthrough. The real creative "aha!" moment comes from stewing about the problem for a long time until a fresh approach wells up from deep in your imagination.

Give yourself permission to imagine, dream, and create. Go for a long walk. Visit a museum. Play a musical instrument. Dance. Get out of your normal business context and see if a really great idea occurs to you. People who have great ideas are people who believe in great ideas and give themselves a chance to think deeply about the problems facing them. Give yourself permission to be a breakthrough thinker, and you'll find that the number and originality of your ideas increase dramatically.

Chapter 10

Going Shopping for Innovations

In This Chapter

- Searching for interesting new approaches that you can adapt and use
- Seeking knowledge from the leaders in your industry
- Working with innovative, forward-thinking suppliers
- Keeping in touch with the experts who know what the best innovations are

If you work in a Fortune 500 corporation, you probably have a research-and-development (R&D) department made up of scientists, engineers, designers, and so forth, and your company probably develops the majority of its own innovations. But 90 percent of the world doesn't have the resources to develop most of the innovations it needs, so it does what every good consumer does: goes shopping!

Whether you're a retailer, wholesaler, or some other form of businessperson, you definitely need to broaden your view of innovation to include good ideas, inventions, and designs from beyond your own four walls. This chapter covers a variety of ways to tap into other people's great ideas in legitimate ways that benefit both you and the inventor.

Exploring Your Industry's Trade Shows

Trade shows are conventions for members of a particular industry. The show operators rent booth space to a wide range of wholesalers and suppliers. If you're a retailer, you'll find wholesalers at your industry's trade show. A medical convention, on the other hand, features producers of medical services and products who are looking for medical practices to supply, and a wood-products convention cues up suppliers who want to sell to lumber-yards, furniture manufacturers, and any other business that works with wood. There's certainly a national trade show for your industry, and there may be regional ones too.

Finding industry trade shows

How do you find a trade show for your industry? Here are some places to look on the Web:

- The Trade Show News Network: `www.tsnn.com`
- All-Biz.info's international directory of trade shows: `expo.all-biz.info/Exhibition/lang/en/year/2010/` (or substitute the current year)
- Bvents: `www.bvents.com`
- EventsEye: `www.eventseye.com`

Finding an innovative new product can be as easy as going to a leading trade show and looking for something fresh and exciting that you can purchase wholesale or license the rights to.

If, for example, you're involved in construction or building maintenance, you probably want to go to CONEXPO-CON/AGG, the biggest U.S. convention for the construction and agriculture industries (see `www.conexpoconagg.com` for the time and location of the next annual event). You might find new practices, products, suppliers, or business partners to work with. You might also find inspiration and go back to work with a fresh idea to try.

Assuming that you're in the construction industry, you may also want to attend shows that offer different perspectives, such as the Greenbuild International Expo (see `www.greenbuildexpo.org` for the next event). This show was started in 2002 and has grown rapidly because it features innovative sustainable building designs and materials; green building design and management; intelligent, energy-efficient lighting and air conditioning; less-wasteful plumbing fixtures; and so much more. You might come back from the expo with an exciting plan to introduce a new line of green building products to your market area, such as superinsulated windows and window shades; energy-efficient lighting, air conditioning, and plumbing systems; and recycled building materials.

BuildingGreen (`www.buildinggreen.com`) is another source of innovative ideas. It conducted a Webinar on energy-efficient lighting that opened my eyes to the possibility of a regional business focusing specifically on lighting audits and plans for larger commercial, educational, and government buildings. A specialist who could go into a facility and identify ways to cut energy costs by 10–20 percent just by redesigning the lighting systems probably would have a nice little niche business, don't you think?

Green building is a relatively new and fast-growing segment of the construction industry, and there's certainly an opportunity for one to three companies in your area to become local or regional leaders in green building. Why not be a leader?

Crossing Boundaries for Good Ideas

You're probably already aware that lots of fresh, new ideas exist beyond your doors. Some have been turned into successes already; others are waiting for some brave soul to develop them. Whatever the type and size of your business, you can be sure of finding more innovations outside it than within it, because most of the world lies outside your doors.

Your industry is a much bigger place than your individual workplace or business. If you work in advertising, you tend to look to other advertisers for new ideas. If you work in manufacturing, other manufacturers are your benchmarks, especially ones that make the same sorts of things your company does. If you work in government, you tend to look to other government offices or agencies for new ideas. As big as your industry or sector may be, however, it's still far, far smaller than the entire universe of possible ideas. It's important to look not only beyond your own company's doors, but also beyond your industry's doors, for fresh ideas and useful innovations. Many of the best ideas come from beyond the visible horizon of your industry's boundaries.

Toymakers such as Mattel, Inc., for example, get the majority of their breakthrough ideas from other industries, including electronics, plastics (injection molding and manufacturing), and entertainment. This fact seems obvious after you read it, right? A new Barbie doll, after all, has to be produced by using plastics technology from the wider world of industry, not from traditional toymaking. Mattel isn't expert in plastics and resins; it's expert in marketing toys. Also, a Barbie product may draw on the consumer appeal of a character from a teen movie such as Bella from the *Twilight* series — a successful product for the Barbie line. Mattel relied on the innovative work of a book author and a movie producer to create the Bella and Edward characters and then licensed the right to make Barbie dolls of them. If a leading company like Mattel looks beyond its industry for help with its innovation agenda, you should too.

Visiting the wrong trade shows

The most exciting innovations often come from visits to trade shows that are far removed from your industry. A bookstore owner, for example, might do well to attend a consumer-electronics trade show, because books are having to share attention with electronic media. What ideas might you get as a bookstore manager when you look to the consumer-electronics industry for inspiration? Here are a few that I came up with:

- For each best-selling print book purchased in the store, offer an MP3 file of the audiobook for free.
- Link large-screen computer terminals to online book previews so that shoppers can look at books even if they aren't in the store and then special-order them for pickup the following day.

- Offer titles in e-book format as an option to traditional bound books, and rent or lend an electronic book reader with each purchase of an e-book.
- Stock movies based on books alongside the books.
- Conduct frequent interactive online author chats with authors from around the world instead of bringing authors into the store only when they happen to be on a book tour (and perhaps install a giant surround-sound video theater in the store for these video chats).

These initial ideas illustrate the point that a bookstore ought not to exist in isolation from the world of electronics. Instead, it could be cross-fertilizing to offer innovations in the way it does business and the way its customers interact with books and authors. A few days at a major electronics or entertainment-industry trade show would stimulate the imagination of any bookstore manager and produce dozens of these sorts of ideas.

Use the directory links in the earlier sidebar, "Finding industry trade shows," to find major trade shows in complementary industries, and start to visit them. Make a practice of peeking into other fields and industries to see what innovations you can bring to yours.

Talking to outsiders

You may tend to focus on tangible things — actual physical inventions or new products in exciting styles and forms — when you go to trade shows or otherwise shop around for something new. It's also important, however, to keep your ear to the ground for exciting ideas that you can apply in your business.

How do you tap into fresh thinking from outside the boundaries of your business? One good way is to make a habit of talking to people who are outside your normal line of work. What's new in brain surgery, landscaping, recreational boat sales, and library management? I have no idea, but I do know that new ideas crop up in each of those fields, and those ideas just might translate to my business. To find out, I could do the following:

- Talk to people who work in completely different fields from mine about the latest trends and challenges in their fields.
- Read trade magazines, professional journals, and blogs from other people's fields and industries.
- Check the business news for reports of innovative behaviors in other fields.

The vast majority of people live and work beyond your neighborhood, profession, and industry. By focusing outward and asking questions, you open yourself to a broad flow of creative thinking.

Seeking out cross-training opportunities

A characteristic of successful entrepreneurs is that they often have experience in more than one field or profession. Take someone who started out selling insurance, then got a degree in nursing and worked in a medical center, and now runs an innovative consulting company specializing in helping companies find less-expensive healthcare plans for their employees. This person's mixed work background made her especially well suited to being an innovator in that field.

Likewise, a finance person who gets a chance to work on a marketing team for a new financial product launch might be exposed to marketing and sales for the first time. Through that experience, he would gain insight into how consumers view their personal finances, which might lead him to propose a successful new line of investment products.

Whether you're exploring a different area of your company or a different field or profession, look for opportunities to get some experience or training outside your profession.

Benchmarking Industry Innovators

It's easy to feel daunted by the challenge of finding an industry leader and then trying to discover what that company does that makes it so successful. Usually, a top competitor's winning strategies aren't posted on a Web site for you to imitate. Fortunately, that's not what I mean by *benchmarking* industry innovators. I'm simply talking about the little things you notice some company doing that you could do in your own business.

Millions of businesses operate around the world. Some of them are doing smart things that you might want to try yourself, so shop around for good ideas that you could adapt to your business. (See Chapter 17 for guidelines on what can be freely copied and what might have legal protection and should be left alone.)

Studying upstarts and startups

The dynamic new businesses in any industry are where much of the innovation takes place. Usually, these businesses are ignored for a few years or more, until some of them gain enough market share to scare the established firms and command attention. You can and should study upstarts before they become widely known, however — and even before they become successful, because some of the best innovations come from these fresh, new businesses. These companies represent the future of your industry. What does the future look like?

Highlighting bestsellers and new products

Any wholesale supply business has to do what science-classroom supplier Sargent-Welch does: offer a broad range of staples. It's important to keep bestsellers in your catalog and on your Web site along with dozens to hundreds of specialty items that a customer might need to order. If you don't have the depth of inventory to meet customers' needs, they'll take their searches — and their orders — elsewhere.

Sargent-Welch lists more than 1,000 products on its Web site (`sargentwelch.com`), but that's not what strikes me as being innovative. What impresses me is how clearly the site flags new products. A navigation bar on the left side of the home page includes New Products as a clickable option, and when you select it, the bar expands to show how many new products are available in a dozen specific areas. (When I last checked the site, it was offering 2 new microscopes, 27 new earth-sciences products, and 92 new physics products.) A science teacher wondering what to do with next year's physics class will be unable to resist browsing those new products for fresh teaching ideas and interesting new labs to offer. I'm inspired to check my own businesses' Web sites to see whether they do as good a job of pointing regular customers toward new products that they might find interesting.

Here are a couple of examples that illustrate the sort of businesses you should watch for:

- If you're in the news business, you may have noticed that a self-styled virtual publisher called Crowd Fusion, Inc., (`www.crowdfusion.com`) raised several million in funding in 2009 — a year marked by losses among conventional newspaper and magazine publishers and the failures of some of them. Crowd Fusion uses a better (read: much cheaper) way to publish news about a topic: It integrates and organizes content from the Web so that it seems like you're reading dozens of well-researched articles by professional journalists. Check out, for example, Super Eco (`www.supereco.com`), a virtual magazine rich with articles about everything green. It pops to life on the Web page because of the clever software provided by Crowd Fusion, and no doubt it draws readers from more traditional publications on the same topic.

  Can you pick up something from Crowd Fusion? Here's a thought that the example suggests: You shouldn't hire journalists to research and write articles in the traditional way; so much content is posted on the Web every day that you can build almost any news-oriented product from what's already there (but a trained journalist is still going to do a better job of aggregating and editing material than someone without experience). You can compile source material manually if your ambitions are modest — a company newsletter or informative blog, for example. Or you could license Crowd Fusion–type software and use it to build fancy info-communities of your own.

- Another startup that catches my eye is Redux (`redux.com`), whose big idea is to provide *friendsourced* entertainment — in other words, you get to view video clips that your friends have recommended or are watching. Other content is cued up based on what your friends like. The company explains its unique benefit as offering videos, photos, music, and Web sites recommended by people who love the same stuff that you do. It's akin to other social-media Web sites but is more content-rich. I don't know whether this particular Web site will be the next big thing, but its idea may be. The content is unique for each viewer and is compiled based on that viewer's particular community of friends and their shared interests.

Could a business Web site morph into something unique for each visitor? Perhaps a supplier of cleaning products could have a Web site that looks one way to a homeowner, another way to a purchasing manager for a big corporation, and yet another way to a manager of custodial services for a school. Why not?

Interviewing innovative job candidates

You'll find that most people have interesting ideas if you just think to ask them for their opinions! Every job interview should include this question: "Can you think of something we could be doing better or smarter than we are?" In other words, while a candidate is trying to impress you and convince you that he's a great job candidate, he could suggest some ways that you could improve your business. If you ask, you'll certainly get some interesting answers. Further, if you really like an idea, you just might decide to hire the candidate who offered it — and assign him the task of helping to implement his suggestion.

Another tip for hiring is to look for evidence of innovative contributions in past jobs. Résumés usually don't feature creativity, because candidates make the (false) assumption that future employers are conservative and more interested in credentials than imagination. But really, why hire someone who doesn't have any ideas to contribute?

The easiest way for a company to become an innovative industry leader is to staff it with innovative people. Make sure that every new hire has a proven history of contributing valuable ideas and also has demonstrated an ability to think on his or her feet during the interview process. Describe a current problem or challenge during the interview, and ask for suggestions. You'll soon know whether you're talking to an original thinker and good problem-solver.

Please don't hire a résumé. No matter how good it looks, the person who can't answer your tough questions is the one who'll be coming to work for you — not her résumé.

Seeing what businesses are boasting about

Businesses that introduce a new product, reorganize to improve efficiencies, or open a new line of business tend to publicize what they've done. Browse business press releases to find out what innovations companies are boasting about, and see whether any of their accomplishments give you good ideas that you could implement in your own workplace. Here are some good places to check for interesting announcements:

- ThomasNet News posts dozens of interesting innovations from all industries (agriculture, construction, mining, electronics, manufacturing, and so on). See the New Product News feature at `news.thomasnet.com`.
- PR Newswire, which most U.S. businesses use, posts dozens of new releases every day. Go to `www.prnewswire.com` and select Browse News Releases or drill down into news specific to a category that interests you, such as Consumer Products and Retail or the Environment.
- PRZOOM offers free distribution of business press releases, making it a favorite for businesses around the world. Visit `www.przoom.com` to see whether the stories spark your imagination.
- Business Wire is another widely used platform for press releases. Although I find that it tends to have fewer stories about interesting innovations and more stories about economic trends and executive promotions, you might find the seed of a good idea in one of its daily press releases. Visit `www.businesswire.com` for inspiration.

You can find something interesting in the latest crop of business announcements; I'm sure of it. The trick is to skim this vast body of announcements looking for ones that trigger your innovative imagination.

Taking a positive approach to evaluating possibilities

As you look at innovative ideas from a wide range of sources, bear in mind that it takes open-minded imagination to find a way to apply them in your business. Ideas don't come ready-made for implementation; they're just starting points for your innovative thinking. Therefore, don't approach them with a critical eye.

Look at the pros and cons of every idea. Notice that the phrase *pros and cons* starts with *pros* — the benefits or good points of an idea — and considers the *cons* — the negatives — after noting the positives. You could quickly dismiss every idea that you come across, because all ideas have some issues or barriers that you'd need to overcome to make them work in your business. But if the benefits are substantial, it may be worth the time and trouble to adapt an idea to your own purposes.

Checking for alignment with your competencies

I can imagine a lot of great new business opportunities, because I do so much brainstorming with clients that it's just second nature to come up with ideas for innovations. I pass right by most of those ideas, however, because my own business portfolio doesn't include the right competencies. I don't do any large-scale manufacturing, for example, so a manufactured product probably isn't a good match for my business. Nor do I do anything involving electronics. Also, although my companies are competent in distribution and sales, they don't sell directly to consumers — only business to business. If I get an idea for a cool, new consumer product that somebody should manufacture and sell, I pass the idea on to an appropriate client. I know my limitations.

Even with a rich imagination and a copy of *Business Innovation For Dummies,* you'll find that plenty of ideas aren't a good fit for your business. As you evaluate ideas, check them for *viability* — meaning that the pros outweigh the cons, so the ideas ought to be successful — and then do a second level of checking to see whether the idea matches your capabilities. If not, keep looking. Ideas are free. You can throw away lots of them and keep looking until you find one that's a good fit.

Sourcing from Innovative Suppliers

Your business, like all others, sources a lot of materials, products, and services from other businesses. I estimate that about 90 percent of suppliers are relatively conservative, but 10 percent of them are quite innovative. A very simple way to be innovative yourself is to source from innovative suppliers. Let them do the hard work of developing a new approach and offering it to you as a turnkey innovation.

Evaluating suppliers based on their creative momentum

Companies usually select suppliers based on a mix of service and pricing. That's fine in the here and now, but success requires forward thinking. Add a third criterion — innovativeness — to the mix, and you'll select suppliers who can help you succeed both now and in the future.

Shopping for a bright future

An entrepreneur in Los Angeles decided that there was a need for a really innovative, fashion-forward home-lighting store offering products that weren't sold at Home Depot or any of the large lighting suppliers. Clearly, though, she wasn't going to manufacture all her own products to start with. Her business plan called for opening a boutique based entirely on products purchased at wholesale and then gradually building relationships with the best suppliers she could find; they would begin to make custom designs on an exclusive basis as she added more stores in other locations over a several-year period.

To find her initial product line, she visited the International Contemporary Furniture Fair in New York's Jacob K. Javits Convention Center. She also traveled to Asia to attend the Hong Kong Houseware Fair and to Germany to attend the Heim+Handwerk convention, which features advances in home construction and interior furnishing, with an emphasis on sustainability as well as arts and crafts. She assembled a list of several dozen unique vendors whose designs had never appeared in Los Angeles.

Her store opened a year later to positive reviews and was quickly regarded as being the leading innovator in home lighting, even though she had yet to design a single lamp herself.

It's easy to compare suppliers' prices, and service quality also is fairly easy to compare when you have a track record to go on. How do you know, however, which suppliers are innovating and which ones aren't? Here are a few key indicators to look for in a supplier:

- The overall look and feel of the business (including the people, printed materials, facilities, and Web sites) are modern and energetic. The business doesn't look old-fashioned or set in its ways.
- The people talk about new products and services frequently and make a point of sharing their latest thinking. They don't rest on the laurels of a static product line and past success.
- The business embraces new technologies in its own processes and operations. You find ample evidence of enthusiasm for progress and willingness to change.
- The people ask questions about your business; they seem to be eager to learn and to share their own learning. Avoid arm's-length suppliers who are interested only in writing your order.

Suppliers who meet all of the above criteria are innovative, and they're likely to help you stay on the leading edge of your own industry.

Asking your suppliers for free consulting

When you've shifted over to suppliers that are innovative, price-competitive, and good at servicing your orders, you're ready to invite them to help you improve your business. This strategy is very powerful, and I don't need much room in this book to describe how to apply it. Basically, you want to get into constructive discussions with your suppliers by asking them what they think you could be doing to improve your business.

The suggestions that suppliers come up with often involve using their products or services, of course, so you need to keep in mind their natural bias to make a sale. Often, however, their ideas have merit, and there's nothing wrong with, say, switching to a different product if that switch benefits your business and your customers. Be open to ideas and proposals from innovative suppliers, and you'll have a virtual R&D department that's eager to help you innovate.

Bringing your suppliers together to brainstorm

It's rare, but remarkably effective, to bring multiple suppliers together and pick their brains for improvements and innovations. The reason it's good to get two or more of your suppliers in your office at the same time is that they may come up with a really clever way to combine their ideas, products, or services. Bringing them together forces them to think outside their normal boxes and helps you form creative new approaches to sourcing.

Call in your suppliers at least once a year to brainstorm ways to improve your business. Gathering half a dozen suppliers, each from a different industry, will ensure a rich mix of perspectives and possible cross-fertilization of ideas.

Going to the Experts for Help

In many industries and professions, associations or other organizations publish standards and research on best practices. These organizations can be sources of innovations that help improve the quality of your services or product.

The Sunnyside Child Care Center at Smith, located in Northampton, Massachusetts, is a small organization without a major budget for research and development. It taps into the expertise of the National Association for the Education of Young Children by maintaining accreditation with that organization, which means that its staff and practices are subject to expert review and

especially high standards of practice. It also purchases an advanced report-writing system from Pearson Education, Inc., which provides rich feedback about each child's development to the teachers and parents. Parents feel confident that their children are getting a great start because of the advanced methods and tools used. Not all day-care centers have the resources to do their own research on early childhood development, of course, but if a center shops around for expertise and brings in leading practices, it can gain a reputation for being innovative and expert — and so can yours!

In any field or profession, fewer than 10 percent of people stay up-to-date with leading-edge thinking and practices. By staying in touch with your industry's experts, you can be on the leading edge with those who implement new practices and approaches. Make sure that you belong to — and participate in — your industry's trade associations and your profession's membership societies. Attend workshops led by innovators, read experts' blogs, and make a point of knowing what the new ideas and practices are.

Chapter 11

Coming Up with Creative Combinations

In This Chapter

- Studying successful combinations for inspiration
- Finding fresh combinations of your own that produce winning innovations
- Mixing and matching problems and solutions to see what you can invent
- Trying creative ways to brainstorm unimagined combinations
- Combining a conventional need with unconventional information or ideas
- Delivering the benefits of a product in some new, unexpected form

This chapter shares a secret of successful innovators: You're far more likely to invent a winning design by combining two existing ideas or designs than by creating something entirely new. More likely, you will succeed by doing what most innovators do: combining earlier ideas, processes, or products into something that has new utility and that can be packaged and sold as your own.

In this chapter, I show you how to create innovative new products by using your existing products as building blocks. I also cover ways of building new designs and strategies out of fresh pairings of existing designs and ideas. Whether you're creating a new ad campaign, a new product design, or a whole new business, there's usually a way to shortcut the innovation process by standing on the shoulders of the many innovators who've come before you.

Finding Inspiration in Successful Creative Combinations

Genetic recombination is the root of biological creativity, producing offspring with a mix of genes from their two parents. The power of combination is the key to individuality in nature and to innovation in business. For every

completely new-to-the-world invention, there are a hundred successful innovations that combine existing ideas or things in fresh and useful ways.

A map plus satellite triangulation equals the Global Positioning System (GPS), invented in 1993 by the U.S. Department of Defense and now finding everyday use in boats and cars for navigation. Fast-forward 25 years for the combination of GPS plus camera, which produced the Eye-Fi Geo card. This card records the location in which each digital photo is taken, so that years later, when you've forgotten where you took that snapshot, the GPS coordinates will be available. (The data storage card is intended to be integrated into cameras, because Eye-Fi doesn't make cameras itself.)

Combine GPS with hook-and-eye tape to get a motion detector for the elderly who are living alone. Strapped to an arm or leg, the device sends an alert to a remote relative when it detects prolonged lack of motion. ARKNAV International, Inc., introduced a product based on this combo concept. Clever, huh?

Now combine a GPS with a simple digital recording device to get a *backtracker* — a GPS unit that you can consult when you realize that you're lost so you can retrace your steps. The combo is being marketed to hikers and backpackers by Qstarz under the brand name GPS BackTrack. (Can someone adapt it to help me find my car when I lose it in mall and airport parking lots? I bet! But where did I put my backtracker . . . ?)

All these combinations involve the idea of orientation or navigation combined with something else to give it special value. Can you invent something new and useful that involves a GPS device and [fill in the blank by brainstorming 20 useful objects]?

Here are some more combinations that created helpful innovations:

- Emergency whistle + mini-compass = Essential gear for hikers and boaters to clip to their zippers or life-jacket rings. (Update it with a mini-GPS?)
- Unbreakable water bottle + carabineer (D-ring) clip attached to screw-on lid = Clip-on water bottle for students and hikers to attach to a backpack.
- Cellphone + music player, Web browser, and other applications = Great new do-everything phones.
- Yogurt + fruit + keep-dry packet of granola = Update of a great combo concept that's gaining market share now.
- Photo + video = A combination of recording options that's becoming standard on digital cameras. (Finally, still and moving pictures in a single camera!)
- TV + Internet + telephone = A combination of services now offered by many cable companies to take advantage of their high-capacity lines.

- Clothing + appliances + groceries = A combination of product categories that everybody else thought didn't belong in the same store until Wal-Mart did it.
- Book + computer = The Amazon Kindle and other book readers that display the text on lit screens rather than on pages. Goodbye, printing presses?
- Couch + bed = The classic sleeper-sofa and the fold-out futon, both of which were major furniture innovations in their day.
- Footstool + wireless speakers = A simple furniture item that has a wireless speaker built into it to make surround sound easy in any room.
- Whitener + mouthwash = Listerine's Whitening Rinse product, which is catching on by taking market share from toothpaste-whitener combos.
- Computer keys + touch-sensitive screen = A touch-sensitive screen with dimples so that you can feel the keys in the dark.

These examples aren't just for fun. I put them in this chapter because reviewing dozens of combination innovations is the best way to power up your imagination and invent good combinations of your own. Pharmaceutical companies do the same thing. Have you noticed that commonly used combinations of drugs are now being melded into one product to simplify life for patients (and increase profits for the drug companies)?

Finding Innovative Combinations of Your Own

It's inspiring to realize how many successful innovations are really combinations of two (or sometimes three) existing designs. Now that you know the best-kept secret of innovation, you're ready to try your hand at almost-instant inventing by finding fresh combinations that you can call your own. I've given a lot of thought to how to come up with good combinations, and this section lays out several methods that you can try.

Revisiting classic combinations for quick wins

When you look at historically successful combinations, keep in mind that they're good for more than just inspiration; a surprisingly large number of new products actually revisit old creative combinations. Some combinations are just so natural that they can support product after product. How many ways are there to combine chocolate and nuts, for example? I guarantee that a candy company will introduce a new product based on this perennial

combination sometime in the next year. The product might be almond-butter cups rather than peanut-butter cups, so it will seem exciting and new, but really, it's just a minor change to an old combination.

Take a close look at classic combinations to see whether you can find a way to revise them and make them your own. It's a fair bet that a combination others have succeeded with more than once in the past will support at least one more success in the future!

Brainstorming combinations with one of your core products

Brainstorming is a simple exercise that can produce profitable new lines of business, but for reasons that escape me, most businesses never do it. All you have to do is set one of your own products in the middle of your conference table, assemble a creative group (see Chapter 6) to sit around the table, and ask the group to come up with 50 ideas for combinations with that product. The goal of 50 ideas is important because it gets the group to use a freewheeling, rapid-fire approach in a hurry.

If, after 23 ideas or so, the group hits on a brilliant one and wants to switch over to developing it, okay. If not, keep pushing ahead to 50 ideas; then pull the best 20 and brainstorm ways of refining or bettering them until you finally come up with the winner that you want to develop and introduce.

Suppose that your company sells kitchenware, and one of its perennially popular products is a line of bright-colored enamel colanders. A colander is simply a bowl with holes in it to let water drain out, used to wash fruit and vegetables or to strain cooking water off pasta. What could you possibly combine with a colander to create a fresh innovation? Hmm. I have no idea either. It's a tough example, actually. But I've brainstormed ten ideas to get you started:

- Combine the product with fresh grapes, peaches, and other delicate fruits to make a gift colander that replaces the conventional gift basket and provides a more useful leftover product than a basket.
- Redesign the product as a decorative ball or cylinder that holds a candle. Its light would shine out of dozens of holes in the attractive red, blue, black, or white enamel of the Candle Colander.
- Offer miniature colanders full of chocolates. (Why? I'm not sure, but the idea seems like fun. Maybe the chocolates could be shaped and flavored like fresh strawberries, raspberries, and blueberries.)
- Make a disposable paper colander.
- Make a cloth colander that's a joke hat.

- Make miniature colanders that screw onto bases and serve as salt and pepper shakers.
- Make miniature colanders that screw together to form elegant, enameled metal tea and spice infuser balls.
- Combine a teapot with a colander that sits inside the lid to form an infuser that's more elegant than the normal wire-mesh version.
- Combine the colander with a flat sheet-metal pan to create a Colander Pan. (What's it for? That's a good question for a second round of brainstorming. Maybe it sits inside a regular pan to create a better roasting pan.)
- Make light covers and shades from colander-style metal with holes in it.

Okay, those ten ideas are a start, but if I were trying to come up with combination innovations for that kitchenware company, I'd push the group to generate four more sets of ten ideas before assessing what we had. Often, the third or fourth set produces the biggest winner — not the first set.

Maybe a colander combined with a saucepan could form a new and better way to steam vegetables in the same colander you used to wash them. Why not add a third item to the combo: a plastic storage container that also fits the colander so that the vegetables never have to leave their colander? You'd have the new Hiam Vegetable System, soon to be sold in stores everywhere!

The point is, a virtually limitless number of combinations is out there, and all you have to do is keep thinking of ideas until you hit on the one that fits your business and turns customers on. What if you don't? That's okay, because you can come up with inspired combinations in other ways.

Recombining fundamental innovations

There are innovations, and then there are the great innovations that all others build on. Take the wheel. It took 3,000 years for humanity to perfect the hub-and-spoke wheel. Now you can take this design and combine it with countless other things to make . . . oh, perhaps a million other products. So many inventions use the wheel in one way or another, odds are that you can come up with yet another one.

Another fundamental innovation is the ball. Yes, the round sphere. It took a long time for people to recognize that the world is round. Before that, no one was very interested in making or using ball-shaped objects. Since then, however, people have come up with lots of uses for spheres: ball bearings, ball joints, baseballs, gumballs, and ballpoint pens, to name a few.

Figure 11-1 shows a clever invention by James Dyson, the famous British inventor who created the Ballbarrow — a combination of a large rotating ball underneath a plastic wheelbarrow. The advantage is that the big ball doesn't get stuck in the mud like a traditional wheel does. Dyson went on to combine a ball with a vacuum cleaner, producing the breakthrough design shown in the figure.

Hinges, levers, ramps, steps, ratchets, and gears are all examples of fundamental innovations that find their way, through combination, into thousands of other inventions every year. The container is another fundamental invention, re-created in different materials and forms millions of times, depending on the application. Can you build on one of these fundamental innovations to create something more specific that meets a modern-day need? Or how about starting with a more recent fundamental innovation, such as the computer chip, electric motor, radio, or robot?

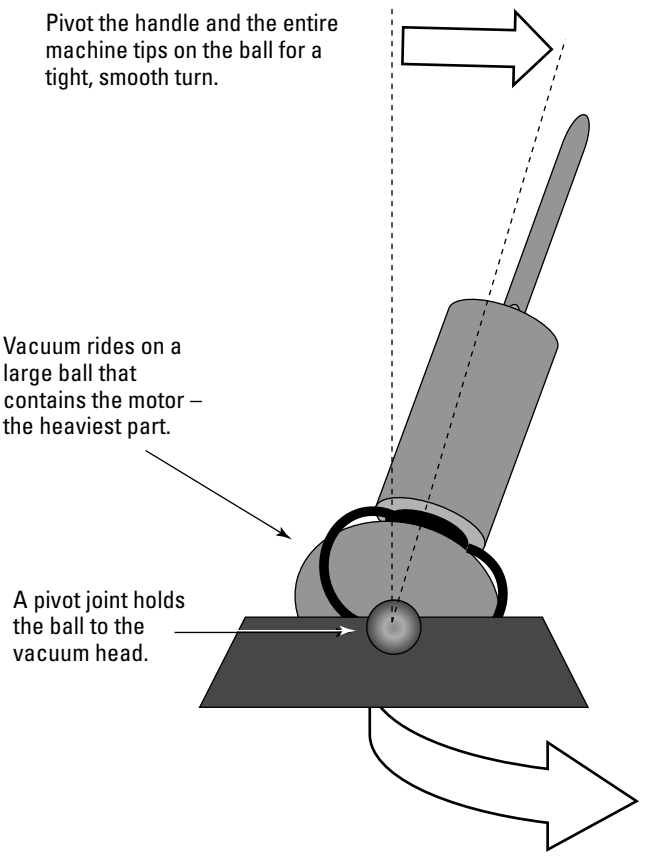


Figure 11-1: James Dyson's improved vacuum design.

It's snowing pretty hard outside my office window as I write this chapter, which makes me want to combine a radio (for remote control), a computer chip (for intelligent navigation), a motor and wheels (for mobility), and a small-scale snowplow or blower to make myself a SnowBot. The machine would be busy clearing my front walk and driveway while I write, so I wouldn't have to wait for the expensive crew with snowplows and snowblowers to show up hours after the end of the storm, when a foot or more of snow has accumulated and clearing it is a big problem.

The SnowBot would be an engineering challenge but certainly not an impossible one, because fundamental innovations would provide building blocks for the project. NASA sends rovers around the surface of Mars, so surely it's not hard to make a little rover that clears snow. If you're good at this kind of thing, please get working on it. I'll buy one!

Combining Problems with Solutions

The idea behind this method is to start with a problem (as in Chapter 9) and then look for solutions to other problems that might be adaptable to your problem. In other words, use combinatorial creativity as a shortcut to inspiration as you develop alternatives.

Finding problems similar to your own

Often, problems have similarities. Your problem may have something in common with another one that's already been solved. The security camera, for example, is a solution to the need for continuous monitoring of high-security areas, such as the cash registers of all-night convenience stores. You may have a different security need, but the basic concept of using a camera to meet that need could still apply.

When I heard on the news a few nights ago that nine houses had been burned down in my area, it got me thinking that fire alarms and extinguishers could be combined with other readily available products — such as lights, prerecorded voice instructions, and digital video recorders — to improve home security. Many commonplace items and designs can be used in specific ways to solve specific problems, and the result is often a valuable innovation. Sometimes, even though you're working with readily available components, the combination of them is nonobvious and actually qualifies for patent protection. (Turn to Chapter 17 for advice on when and how to protect your intellectual property.)

Here are some ideas that combine existing solutions with the new problem of how to be prepared for a fast-moving nighttime house fire caused by a fire bomb or Molotov cocktail:

- More people would escape nighttime fires if each door had an emergency light — perhaps a wireless LED light mounted above the door that would go off only when the heat, smoke, or carbon-monoxide detectors were activated.
- If the house alarms were integrated into a central system, as many are these days, there could also be a speaker at each exit door and window, and one of them could be activated to indicate the safest evacuation route based on where the heat and smoke were detected in the house.
- If a fire is localized and has not progressed beyond control yet, a quick application of a fire extinguisher may control it and save the house — but finding your fire extinguisher in the dark is often a challenge. Why don't fire extinguishers have wireless emergency lights on them, too?
- There's no reason not to integrate a fire extinguisher into a central alarm system. A simple on-off switch in the cradle would indicate whether the extinguisher was in place or had been removed for service or use.
- A further combination occurred to me when I thought about the modus operandi of the arsonist (or arsonists) whose activities made my local news: tossing a flaming bottle of gas onto a porch or through a window and then running away. Nobody's seen the arsonist(s), because the fires strike in quiet residential neighborhoods at night. It would be handy to have a simple digital video recorder mounted in an inconspicuous weatherproof box on a pole or otherwise placed out of reach, with the camera aimed at the front of the house. This device could be tied to the house's heat and smoke alarms, and it could be set to transmit its past hour of memory to a central station as soon as an alarm is tripped so as to provide insight into the origins of the fire.

  The digital camera mounted outside the house could also stream a live image for the alarm-station operator to view, which would help the operator decide whether the alarm was real and make any call to the fire department more prompt and informed.

These ideas aren't difficult to imagine, really; I don't think that any of them would win an inventor's award. They flowed quite naturally, however, from a focus on a specific problem.

Looking for problem themes

What makes your problem like others that may already have good solutions? The answer is *problem themes* — general, abstract statements of what's wrong. After you generalize your problem, look around for other problems that fit the general category. Maybe one of their solutions can be adapted to your needs. I have a problem with squirrels getting into my office and studio, for example. They climb onto the roof, gnaw holes in the trim, and slip into the interior of the walls, from whence they sneak around the building and cause no end of trouble.

I called an expert, who examined the building and announced that because the crawl spaces were inaccessible (to him — obviously, not to the squirrels!), he'd have to trap the squirrels outside. He warned me, however, that he was liable to trap lots of the wrong squirrels — ones that weren't actually living in the building. He further warned me that his bait might actually draw more squirrels to the roof of the building, where he wanted to place his traps.

That solution didn't sound perfect. I wondered whether I could come up with a better one.

To use problem themes as the starting point for finding a better way to keep squirrels out of my office building, I needed to brainstorm some very abstract statements of the problem, such as these:

- How to keep something or someone out
- How to make sure that someone or something isn't inside when you plug a hole
- How to catch the right animals, rather than others that happen along

As I looked at the last item in this list, I thought about flapper valves, which allow water to go one way but not the other. These valves are used in simple pumps all the time. Instead of hammering wire over the holes in the trim, I could make a flapper door out of plywood and stiff rubber — or, better yet, out of sheet metal and a strong spring hinge. This door would permit an animal to push its way out of the hole but not go back in. And wouldn't the same design solve the other problems on my list too? Abstracting the problem led me to think of a way to combine my squirrel problem with another problem — how to allow water to flow only one way — and come up with a more effective solution than the exterminator's approach of spreading kill traps all over my building's roof and yard.

I'll make up some one-way squirrel doors and install them over the holes the creatures made in my roof trim. If these doors do the trick, maybe I'll commercialize the design. CheckOut might be a good brand name for a new line of pest-control products based on this design. Maybe I'll trademark the name as well as apply for a patent. (For details on how to do both things, see Chapter 17.)

Getting Resourceful in Your Search for Combinations

Remember that the big-picture idea is to innovate. If you're stuck for a really great design or idea, and combinatorial innovation isn't producing what you need, explore some really creative approaches to finding unique combinations.

Pairing things that nobody thinks should go together

Oxymoron inventions are what I call those improbable combinations that, when done in a clever way, so often produce breakthroughs.

Here's an example of an oxymoron: fuel-efficient jets. Airplanes gulp immense amounts of jet fuel, so if you want to travel without a big carbon footprint, stay on the ground. But wait — as I write this chapter, Boeing is working on a new fuel-efficient mid-size plane in an effort to overcome this problem.

Playing with words to find unexpected combinations

Word-play inventions use components or ingredients inspired by word combinations. Sometimes, words are similar because they come from the same root word. Recognizing a familial relationship between words may help you see relationships between the things the words represent, too.

Tablet and *table,* for example, come from the same root: the Latin word *tabula*, which means *board* or *plank.* Planks of wood or slate were used for many purposes in ancient Rome. People ate on tables made of tabula and wrote letters and records on smaller planks, which is why a table can be a grid of information as well as something to serve dinner on.

You don't have to find logical connections between words to play with them and produce creative insights. There's no particular rhyme or reason to why certain words rhyme, but still, a list of words that rhyme is a good starting point if you're looking for possible combinations. Take this list, for example: *rhyme, dime, time, grime, crime, thyme, prime,* and *climb.* Can you think of a new product, using a pairing from this list? How about Time Climb, a game in which you start in the Middle Ages and have to climb your way to the present by finding all the key inventions along the way. No? Well, how about a cheap disposable clock called a Time Dime? I visualize it as a miniature pocket watch and timer the size of a dime, made from a simple computer chip and LED display, priced at — you guessed it — 10¢.

Cereal maker Kellogg Co. often runs brainstorming sessions. During one of the sessions, someone asked a creative question: "How can we help people eat smarter?" A literal answer to the question wasn't requested, but one answer proved to be insightful: "Why not include something that literally makes people smarter?" The result was Live-Bright brain-health bars, now in early testing. The bars include DHA, an omega-3 fatty acid that is thought to boost brain activity.

Imitating without violating intellectual-property rights

Copycat products borrow shamelessly from someone else's successful product concept, even if the concept doesn't appear to fit another brand or product line. Why not give it a try if you have distribution and the other company has a good product concept? All you have to do is find a way to combine the other company's concept with some element of your approach or brand to make it your own.

McDonald's, the hamburger chain, envied Starbucks' success, so it introduced its own line of supposedly gourmet coffee drinks under the pseudo-French name McCafé, using a massive television ad campaign to train customers to think of McDonald's as a legitimate source of lattes.

The trick, of course, is to borrow only a good *idea* — not a patented, trademarked, or copyrighted design or expression. See Chapter 17 for information on avoiding legal trouble, and check with your lawyer if you have any doubt.

Combining a customer want with a solution you can sell

Need-driven inventions are products or services designed to address a need or want expressed by consumers and explored through extensive surveys and discussion groups.

Procter & Gamble's surveys about laundry detergents revealed that people hate it when their clothes age and deteriorate after repeated washings. To address this need, P&G identified chemicals designed to preserve fabrics and added them to laundry detergent. The result was Tide Total Care, introduced in 2009.

Seeking Unusual Information

Combining things is great, but what about combining ideas and information? The principle of innovating through combining also applies to intangibles, not just tangible things, and you can find your way to a breakthrough design by combining ideas and information in fresh ways.

Barack Obama's 2008 presidential campaign, for example, combined the candidate's name and image with the concept of change.

Casting a broad net

It's hard to find information that leads to fresh combinations of ideas. The problem is that you don't know what to look for. A solution wouldn't be original or innovative if it were obvious, right? This problem has an official name: the *relevance paradox,* defined as the difficulty of finding information when you don't already know that it might be helpful or relevant.

In other words, you look for the information that you already know is related to your question or goal, but you don't look for information that you don't know about. So how do you overcome the relevance paradox and find information that could help, even though you don't know about it in advance?

Sometimes, if you gather information at random, you get lucky and hit on a surprisingly relevant fact or idea. The trick is to hold your puzzle, problem, or objective in your mind as you scan many sources quickly, waiting for something to pop out of the flood of information and come to your attention.

A more guided way to look for information that you didn't know would help you is to use analogy to guide yourself toward imagined information or solutions. If a business facing bankruptcy is like a sinking ship, what would be the equivalent of a radio call to the Coast Guard, or a toolkit containing everything needed to patch a hole, or a way to offload the valuable cargo to another ship before yours sinks? These three strategies are fairly obvious for sinking ships, but could they also be applied to sinking businesses? Well, let's see. You could try the following:

- Search for turnaround consultants, who, like the Coast Guard, rush in to help when a business is about to go down.
- Look for a short-term patch in the form of emergency financing or a way to sell or close the worst-performing line of business.
- Seek a buyer who will cooperate with a bankruptcy process by acquiring your most valuable assets and continuing to service your customers.

Seeking weak signals

You can also look for *weak signals* — opinions and facts that contradict the prevailing wisdom and are outshouted by the mainstream — to find alternative viewpoints. Usually, you can find people who have contrary opinions or different approaches from the mainstream, and if you seek out these contrarians, you may find that they have a point. If you operate in an industrial setting, for example, find out how small-scale tinkerers in home workshops are tackling the same things that you do in factories.

I bet that someone out there has a fresh approach to generating power. One farmer, for example, built a cylindrical turbine with its feet in the water of a stream, its arms spread to catch the wind, and a round solar panel on top. Depending on the weather, the three components contribute differentially, but the turbine almost always produces at least a trickle of electricity. I don't know whether the design is worth scaling up, but it might be inspirational to someone at a power company.

Trying Unusual Forms

The form that something takes is partly due to necessity. A coffee mug, for example, needs to hold liquid, sit flat on a table, and be easy to pick up and to sip from. But form is also due to design traditions that can blind us to other possibilities.

Combining a function with an unfamiliar form can produce breakthrough innovations. I saw a fun example of this principle back when the popular singer Taylor Swift hosted *Saturday Night Live.* As hosts are expected to do, she opened the show with a humorous monologue. Her opening, however, didn't follow the conventional form of a spoken monologue with pauses for (ideally) audience laughter. Instead, she picked up a guitar and proceeded to sing a composition titled "My Musical Monologue." The sketch was clever and got a lot of laughs, and the idea of setting it to music worked well for her, because she's a good singer and songwriter but (presumably) an inexperienced monologuer.

What combinations of form and function can *you* come up with to amaze your audience or win customers? Can you offer the same benefit while changing the form of your best-selling product?

To help you see how to match new forms to old benefits, think about the benefits of a cup of coffee. Can you give someone the same benefits in solid form rather than liquid? Sure! I bet that you've already come up with coffee ice cream packaged in coffee cups and sold alongside hot coffee as a new option, right? Or maybe you were thinking about coffee-flavored gum with caffeine in it. What — you weren't? Okay, had you thought of a coffee patch — like a nicotine patch, but infused with the caffeine and other xanthenes that give coffee its energy- and mood-boosting effects? Or do you have yet another possibility in mind?

You can find lots of ways to combine new forms with existing product benefits and create breakthrough products. Give it a try!

Clever combinations for designer display boards

No doubt you've used a chalkboard, whiteboard, or bulletin board. But have you ever seen a combination whiteboard and bulletin board? How about a corkboard inside a locking cupboard to keep your postings neat and controlled in a public or semipublic place such as a hotel lobby?

These simple combinations, with nice frames added, make up a product line with hundreds of options for the company Art Concepts (`www.artconceptsstore.com`). Its wallboard superstore features dozens of categories made up of combinations. Combination boards are just one example, alongside fabric-covered corkboards and fabric-wrapped wallboards. Three-way combinations also enrich the company's catalog. The French board, for example, is made of cork wrapped in fabric, with a crisscross of diagonal ribbons tacked to it for holding small pieces of paper or photographs.

Imagine the best combination for organizing your bulletin board or planning wall, and you can have it made in the company's custom board center. Art Concepts shows that simple materials, combined in creative ways, are more than enough to make a unique and appealing line of business.