Forced Relationships

This technique provides some novel ideas by asking group members to take an unrelated stimulus like an object in a room and forcing a relationship between the object and the situation. Participants can use random objects or more structured lists like SCAMPER or Alex Osborn's idea-spurring questions to build on previously generated ideas.
Forced Connections

What ideas do you get from this aardvark?

If you run out of ideas during a brainstorming session, try the Forced Connections technique. It works well with other divergent tools such as brainstorming and brainwriting. The unusual ideas that result often help get the group's mental wheels turning again.

Directions:

1.) Review the ground rules for diverging.

2.) Point to an object or picture totally unrelated to the problem and ask, "When you look at this (object or picture), what ideas do you get for solving this problem?"

3.) Force a connection between the item and the problem to generate more ideas. (Forced Connections often results in more novel or unusual options.)

4.) Share your ideas and repeat as necessary.

The Forced Connection question:

"When you look at this object or picture, what ideas do you get for solving this problem?"
Overview and Description

Forced fit is a tool for generating options. Its purpose is to help you make new connections by linking objects or ideas that seem to be completely dissimilar from each other. Working individually or in a group, using this tool can help you break away from habit-bound thinking. It can be particularly useful when you find yourself "mentally stuck," unable to find a new direction or come up with new possibilities. For this reason, the forced fit tool has sometimes been described as a "brainstorming enhancer." Forced fit allows individuals or groups to give free reign and playfulness to their search for new possibilities, and gives people permission to explore their silly, fun, or illogical sides.

Forced fit can help groups or individuals discover new connections by giving full play to all the senses and by drawing on metaphorical thinking. The forced fit tool, forced relationships, and other variations emerged from the work of Gordon (1961), Prince (1968), and others (Whiting, 1974). Gordon and Prince introduced the concepts of making the familiar strange and making the strange familiar. Prince suggested, for example, that for analogies to be effective in suggesting new ideas or solutions, they must be "force-fitted" to the problem:

Through the strain of this new fit the problem is stretched and pulled and refocused in order that it may be seen in a new way. If no deliberate attempt is made to find relevance in apparent irrelevance, then one analogy can merely lead to another and another, and potentially fruitful viewpoints will be bypassed. A Force Fit suggests new contexts and thus provides the raw material for new lines of speculation. (p.9)

Forced fit helps the person or group to make something familiar completely strange and unusual. The first step is to give the task or problem an unusual twist by focusing on an apparently irrelevant object or by adopting an unusual perspective or viewpoint. For example, a person might ask, "What does [any randomly-chosen object] suggest about this task or problem?" or a person might take an unusual role or viewpoint (e.g., that of a virus) and discuss the impressions that result.

Using the forced fit tool involves attempting to put the unusual ideas in some familiar context related to the problem. Metaphorical statements, which in the creative literature are commonly used to subsume both analogies and similes (Gordon, 1961), facilitate this step. Pames (1976) noted that the forced fit tool can be used to take anything in one's awareness and relate it to the problem at hand. It is the process of connecting a stimulus with a concept or problem. One exercise suggested by Pames, Noller, and Biondi (1977) was to take an excursion outdoors and to observe and examine things from nature such as trees and their parts, or seeds, or rocks. Each person then makes a connection between an identified problem or issue and the item from nature. The connection is stated metaphorically. An example might be, "My life is this leaf on a tree; I fall a lot but always spring back." Or, "This seed is like a computer program because it could have a lot of bugs eating it." Metaphors and similes can help you restate the challenge in new ways that may evoke new and unusual options.

To understand the forced fit tool better, let's take it step by step. First, choose a task, a problem statement, or an object or situation to improve. Suppose you start with the problem statement. "How might we improve the computer?" Next, select and show or list several objects (three to five might be good to try) that are completely unrelated to the task. For our example, let's choose one: a snake. Now, force fit the word or image of snake to the concept of computer.

You might list a number of attributes of a snake as well as several attributes of a computer. Stay loose and playful! Allow your mind freely to interrelate or merge the attributes from both lists. Think of your mind as a kaleidoscope and let it spin!
Many people enjoy this process, although others find it strange or uncomfortable, especially if it is a new and unfamiliar experience. Some jump right in and find all kinds of unusual connections and new directions. Laughter and humor are absolutely permitted, even encouraged.

When you find some new connections, or in our example, attributes of a snake that might give you new ideas for improving the computer, try to develop them beyond your first impression. It isn’t necessary to elaborate them in great detail right away, since you will develop the most promising possibilities later (and you do not want to cut off your search for other possibilities too quickly). But, especially if your first thought is just a brief phrase or even a pun or play on words (which can often happen), it will be helpful to expand it and describe the idea it suggests beyond the initial, and perhaps superficial, thought.

Papanek (1969) used the forced fit tool in the field known as bionics. He noted that connections can be made between biological or biochemical systems and new applications in bionics. An example of an application that came from such an exercise is the method of dropping containers of fire-extinguishing material onto a forest fire by using artificial maple seeds about 8 2/3 inches long. The seed portion contained the fire-extinguishing material. The intent was to have the seeds fly directly into the hottest part of the fire. They were designed to open once the sack in which the seed was encased had dropped below the up-draft area. As the casing was consumed by flames, the fire extinguisher would be released (Papanek, 1969).

Application
You can use the forced fit tool with students of all ages. It will often bring about some exciting and unexpected results.

In language arts, try force fitting a character or situation with something unique and different. Your students might play with noun and verb combinations to generate new ideas. Have them try such things as riding a book instead of a horse, or reading a horse instead of a book. What new possibilities do those changes of perspective suggest? Or, ask the students to become a spider and spin a tale instead of a web.

Play with relationships between everyday objects or situations using various senses to facilitate the process. For example, using the sense of smell, soak cotton balls in different scents (vanilla, cleaning solution, bleach, vinegar, cinnamon, etc.) and put these into small capped bottles. Or, for the sense of touch have a variety of bags with different textures in each one (pine cones, burlap, balloons, marbles, felt, velvet, twigs, etc.). Develop a box of diverse and descriptive words and pictures. Your students might pull out one or more and make a connection between the word or picture and their current task or challenge. They could choose to sniff or feel or look (or any combination of these) and force fit their impressions with the question or problem being considered. Sounds from nature, industry, home environments, or certain places around the school (cafeteria, gym, office) could also be incorporated into this process.

You might also try movement or dance and encourage students to
In my work with a major company in the transportation field, I was charged with creating a Human Resource Development department for our Miami, Caribbean, and Latin American Division. I had an image of how I wanted the department to function.

Taking an eclectic approach, I devised a model that represents a strongly “results-orientated” department. The model becomes operational when a manager solicits the help of our department to address a performance issue. First, our department conducts a task needs diagnosis to determine what approach is appropriate to address the task. Initially we will serve as “brokers” to determine and recommend one of four possible approaches (internal design and delivery, outsourcing, intervention, or coaching and development). Then we will serve as consultants to make sure that the approach has an impact on the employee and the bottom line.

Once we recommend an approach, we implement it using a three-step process: evaluation, planning, approach preparation, and data management.

In conducting fieldwork to communicate an overview of this model, I discovered that some people and groups within the company found it understandable while others did not. I decided I needed to find a new way to illustrate this model, and using the forced fit tool helped me to accomplish that. The forced fit example I used was my hand.

I looked at the palm of my hand and that, in turn, triggered the idea of the palm tree; I used a drawing of a palm tree to represent our model. At the base of the palm tree, I put “task needs diagnosis.” This represents the foundation that allows for appropriate selection of an approach. The approaches are represented by the palms (coaching and development, outsourcing, internal design and delivery, and intervention). The trunk represents the implementation steps (evaluation planning, approach preparation, and data management).

If we observe that the palm is turning brown instead of green, then we examine the trunk (data management) for an explanation. The numbers may point to the way we prepared the approach. If that is the case, we examine our preparation of that approach. That step may point to the way we planned our evaluation. The way we planned our evaluation may point to the way we diagnosed the needs of the task. Checks and balances along the roots (task needs diagnosis), the route to the palms and fruits (three-step implementation process), and fruit (end results) are inherent in the palm metaphor. This metaphor has been received with great enthusiasm by those to whom I have presented it.

The plan has received support from key stakeholders, and I have been asked to prepare an expanded proposal for our company to consider.

John Cabra is a consultant in organizational performance and employee development with a major corporation in the transportation area.
respond to music or sounds. Have them force fit the movements they are performing with a task, question, or challenge. For example, what ideas might be generated when force fitting movement with math? You might consider developing a forced fit center with a variety of resources to stimulate using any or all of the senses. Students could choose a single sensory stimulus or a combination for force fitting to the problem or concept at hand.

Help students make personal analogies by “becoming” the forced fit example. They might become, for example, a dandelion seed. How do they move? Where do they land? Then, help them to create a metaphor or simile to link their experience to the concept or problem being considered.

Forced fit is a tool which, in my experience, can often be very exciting, but might initially be confusing for some people. Not everyone will be immediately comfortable in making these mental excursions. The key is to have fun with the experience. Laughter and humor are important. Allow the mind to wander into different idea canyons and gulches never explored before. Some of the best uses of the forced fit tool can occur when you are working on a problem or challenge for which it has been difficult to come up with new and interesting options. Use this tool to find some unusual or original possibilities; the business of analyzing, refining, and developing them can come later (and there will even be those who will think that can be fun, too).

Dr. Patricia F. Schoonover, of Clintonville, Wisconsin, is Director of the Wisconsin Odyssey of the Mind program.

References


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Facilitator’s Notes For Form 13, Forced Relationships

The purpose of this Form is to help the group take advantage of serendipity, building on the simple observation that new ideas often come from looking at one thing and seeing something entirely different.

For your problem statement, look at each of the pictures on the form, one at a time, asking, “What new ideas might the picture suggest for this problem?” Search for several possibilities for each picture.

Tips to encourage effective use of this Form:

- It is not necessary to use all the pictures, nor to use them in any prescribed sequence. Any of them might be the springboard for one or more new ideas!

- Feel free to add or substitute other pictures. Use a variety of scenes or objects, chosen randomly. Don’t try to pre-select items you think fit the problem.

- Sometimes, the first responses will be puns or play on word reactions, or slogans. Encourage the group to build on these, to expand them, or develop them more fully. One way to do this is by asking, “How? What might that suggest we could do or try?”
**Forced Relationships**

**Problem: IWWM**

<table>
<thead>
<tr>
<th>What Ideas does this picture suggest?</th>
<th>What Ideas does this picture suggest?</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Target" /></td>
<td><img src="image2" alt="Clown" /></td>
</tr>
<tr>
<td>What Ideas does this picture suggest?</td>
<td>What Ideas does this picture suggest?</td>
</tr>
<tr>
<td><img src="image3" alt="Dog" /></td>
<td><img src="image4" alt="Piano" /></td>
</tr>
<tr>
<td>Add your own picture!</td>
<td>Add your own picture!</td>
</tr>
<tr>
<td>What Ideas does this picture suggest?</td>
<td>What Ideas does this picture suggest?</td>
</tr>
</tbody>
</table>

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Overview, Description, and Purpose

Force-fitting is a tool for generating options. This tool is particularly useful for generating unique, unusual, or highly original options. Force-fitting involves using dissimilar, or apparently unrelated, objects, elements, or ideas to obtain fresh new possibilities for a stated task. The force-fitting process stimulates searching for new perspectives, viewpoints, or combinations—possibilities that arise from the unexpected. In force-fitting, you seek to find ways to see ordinary things in unusual ways, or unusual things in more everyday ways. (Some models or approaches refer to this as “making the familiar strange or the strange familiar.”)

The Force-Fitting tool can be particularly useful for the following purposes, or under these conditions:

- When the group will benefit from the “stretch” of some highly original possibilities, and is comfortable in “playing” with unusual ideas or perspectives;
- When the group seeks deliberately to move away from familiar ideas or the possible limitations of their assumptions, prior experiences, or expectations;
- To help the group “loosen up” its thinking and break out of feeling “stuck;”
- To produce new possibilities that may be quite different from other options, and may require considerable time and effort to refine and develop (“high-risk, high-gain” new options).

Getting Ready to Use Force-Fitting

Materials. It will be helpful to use Force-Fitting Worksheets. A sample is included on page three of this booklet. Other similar resources can be found in the Creative Problem Solver’s Guidebook (1994) or Thinking Tools Lessons (1997). It may also be helpful to have a collection of randomly-selected objects, or photos of objects, to use during the Force-Fitting activities. No other special preparation is required to use the Force-Fitting tool.

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History and Background

The Force-Fitting tool, also called forced relationships, emerged from the work of Whiting (1958, 1974), and from subsequent modifications and extensions by Gordon (1961), Prince (1968), and others. Papanek (1969) noted the importance and power of connections between biological or biochemical systems and other problem areas in his work on bionics. Parnes (1976) described ways to apply Force-Fitting in solving problems creatively; related applications and extensions have been described by Isaksen, Dorval, & Treffinger (1994, 1998), Cabra (1996), and Schoonover (1996).

Learning More About Force-Fitting


For additional information on Creative Problem Solving methods and tools, contact:
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Examples and Applications

Some ways to use Force-Fitting with students include:

- Improving existing products or activities, and especially making improvements that add highly novel or usual new possibilities or directions;
- Creating new products, and particularly possibilities that combine two or existing products that are not usually associated with each other;
- Using metaphor or simile in force-fitting, to help analyze or understand a character in a play or story;
- Creating new or unusual themes or plots for story writing, drama, or art;
- Combining media or materials in unusual ways in visual expression;
- Combining unusual, and typically unrelated, sounds, objects, or settings in musical expression;
- Developing ideas for new and unusual inventions;
- Creating scenarios for improvisation, in settings such as creative dramatics or foreign language conversation practice;
- Formulating hypotheses or experiments involving unusual combinations of scientific variables, for science classes or science fair projects;
- Topics for extemporaneous presentations in public speaking or communication classes;
- Creating attention-getting illustrations or messages for publicity, promotion, or advertising of activities or events;
- Developing unusual themes or activities for parties, games, carnivals, fund-raisers, or other special events;
- Developing an unexpected "twist" or turn in a poem or story;
- Searching for new possibilities for dealing with any problem or challenge when you feel "stuck" and unable to come up with any new or different options.

An example of an application of the Force-Fitting tool in a classroom setting involves a group of students who used Force-Fitting card decks they had made by gluing pictures of common objects on large index cards (one picture per card). They used their Force-Fitting cards when they wanted to generate some new and unusual ideas for improving the furniture in their classroom. They started by exploring ways to improve the chairs (straight, hard, metal and formed-plastic) in the room. The students selected three cards randomly from their deck: a table lamp with a flexible ("goose-neck") frame; a fancy diamond necklace; and a telescope. Then, they used the three objects to help think of new ways to improve their chairs. The flexible lamp, of course, immediately led them to think about mounting a similar lamp on the top of the back of the chair, so you could have a convenient and adjustable light source. They also stretched their thinking beyond this first, rather obvious connection, and soon turned to the flexible neck of the lamp. This led them to consider modifying the back of the chair, so its position could be moved (from left to right, or from straight to a reclining position). The fancy diamond necklace suggested decorating the outside of the chair's frame so each student could personalize his or her own chair. It also suggested creating a chair that was very ornate and fancy, and might even be elevated like a throne, that could be used to recognize certain students for special times or accomplishments. They liked the idea of earning the right to use the "Diamond Chair" as a special privilege. The telescope led them to consider making each of the legs of the chair adjustable.
Thinking Tool Guides: Force-Fitting

Tips and Variations

General Tips and Suggestions. These suggestions may help you to use the Force-Fitting tool successfully.

1. Use random objects; don’t limit your thinking by trying to select objects that seem to “fit” or be specifically related to the task. The tool should provoke the group to move their thinking away from the “obvious.”

2. Be sure to use objects for Force-Fitting that will be attractive, attention-getting, and “playful” for the group. It can be very helpful to build a collection of small, inexpensive toys or gadgets for people to explore. Include some common, everyday objects, some unusual gadgets, and some items that will be light and humorous.

3. If a group member responds with a pun, a play on words, or a broad or non-specific admonition (or a platitude)—write it down (deferring judgment), and then probe for a more specific follow-up; ask questions such as, “How? What about this object, or how it works, suggests how it might be possible to do that?”

4. Encourage the group to “stretch” beyond the first few ideas or connections they find for each object.

5. At first, the group may look for very literal ways to apply or use the object. Encourage them to think figuratively about the object and its possible implications for the task, or to use any of the object’s specific attributes or characteristics (e.g., size, shape, color, operation) as a springboard for new possibilities relating to the task.

Variations. The Force-Fitting tool can easily be modified in a variety of ways.

1. Use a deck of 5” x 8” cards, each with a picture of a single object on it, instead of the actual objects. Ask each member of the group to select a card from your deck, keeping it face down. Then, have one person at a time show his or her card for the group to use to search for new ideas or connections. After a minute or two, proceed to the next person’s card.

2. Provide a number of department store or mail-order variety catalogs or flyers. Distribute these to the group, and ask them to select products at random (e.g., “close your eyes and point to one on the page you have open”). Use these as objects for Force-Fitting.

3. Ask each member of the group to look around (or walk around) the room, or a certain area outside, and select one or two objects that catch their eye. Ask them to think about how the items they see relate to the task. Set a time limit to reconvene the group. At that time, ask each person to report by naming the objects they found and explaining the idea(s) those objects suggested for the task. Write down each person’s key ideas or results.

4. Force-Fitting might use any of the senses. Consider using stimuli that involve smells, sounds, or tastes to stimulate new connections.

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Important Reminders For Using All Generating Tools!

When using any of the tools for generating options, keep these suggestions in mind:

- Review the basic guidelines for generating options (defer judgment; seek quantity; encourage all ideas; seek combination) and, if possible, display a poster to help the group remember the guidelines during the session.
- State the task clearly and concisely, and in a way that will invite many, varied, and original options.
- Consider and discuss your reasons or purposes for selecting and using the tool before you begin; know what you hope to accomplish by using the tool.
- Be aware of your thinking and progress while you are applying the tool; be prepared to modify what you are doing as you proceed.
- Always allow time to debrief your use of process and your progress on the task.
- After using any tool, think deliberately about what steps you will take next and what other tool(s) you may need to use.

Steps for Using this Tool

1. State your task or problem clearly. (If you are using the sample worksheet on page 3, write the task in the box after the + sign.)

2. Consider objects that are not related to your task in any specific way. (Use the pictures given, or any others!)

3. Choose one object at a time. How might anything about that object relate to your task? (Think about its size, shape, color, parts, operation, or purpose, for example.) List the participants' responses, or if you are using the worksheet on page 3, write them in the box after the = sign.

4. Think of many, varied, or unusual ways the object (or any part of it) offers new ideas for dealing with your task or problem.

5. Focus your thinking by choosing one or more of the new possibilities to use or examine in greater detail.
FORCE FIT

Purpose

Force Fit is a divergent thinking tool that helps generate innovative options. Use this tool:

- When novel, unusual, or innovative options are desired;
- If the group is starting to slow down and needs to be re-energized; and/or
- To move the flow of options into new directions.

Description

Force Fit is a technique that forces a relationship between the task and an unrelated object. While generating options, the facilitator shows a random object (e.g. toys) to the group and asks group members to generate options by forcing a fit between the object and the task at hand.

History

Gordon (1961) uses forcing relations in problem solving situations by “making the familiar strange and making the strange familiar” to develop wild analogies into feasible solutions. He explains the Symbolic Analogy as a Gestalt response (Kohler, 1930). Koestler (1964) explains the act of creation through bisociation: the association of two incompatible frames of reference. Isaksen, Dorval & Treffinger (1994) describe Force Fit as a separate tool for generating options.

Kohler, W. Gestalt psychology. London: G. Bell & Sons Ltd.

Getting Ready

- Prepare the following materials:
  - Toys and/or other objects

General Suggestions

- Use “random” objects, rather than objects that seem to fit the problem. The more removed from the problem the objects are, the more likely it is that they will lead to novel and unusual options.
- Use exciting, interesting toys as objects to get the group’s full attention. Make it fun.
- Have a variety of toys ready for use at any time.
- Be ready to review and reinforce the guidelines for brainstorming while the group is generating options. Emphasize “Freewheeling”.
- Consider leaving the objects on the table, for the group members to use anytime.
Steps for Force Fit

1) **State and Clarify the Challenge**
   - Write down the statement of the challenge that is to be addressed, so that the entire group can see it.

2) **Review guidelines for divergent thinking**
   - Defer judgment
   - Freewheel
   - Seek combinations
   - Strive for quantity.

3) **Explain Force Fit by giving an example.**
   - Give an example of how to make connections between object and task statement.

4) **Introduce an object to the group**
   - Show an object to the group that is unrelated to the task (e.g. toys, objects in the room or outside).
   - Have the group members become familiar with the object (observe, touch, pass around, etc.).

5) **Have group generate options stimulated by the object**
   - Use the following question:
     "What options might this object give you to deal with the task in a new way?"
   - Have the group (including the client) call out their options one at a time so that the recorder can capture all of the options. Or have them write options on Post-Its (See Brainstorming with Post-Its™ Tool Booklet).
   - Push the group members to "step beyond the obvious". Use questions like:
     - "What does that suggest for our challenge?"
     - "How might that take our thinking in a new direction?"

6) **Repeat several times with different objects**
   - Use a number of objects, since some work better than others. Let the technique stretch the thinking of the group.

7) **Check-in with client**
   - Ask the client what would be the preferred next steps to take.

8) **Take next steps**
   - Take next steps, considering the needs of the client and the group dynamics. Some possible next steps are:
     - Further diverging with a different tool.
     - Converging on options.
     - Providing time for reflection and incubation.
**SCAMPER**

**STATEMENT:** How to control Vernon more effectively?

**Substitute?**
Use other kinds of restraints (e.g., electronic or audio—high pitch sound, laser or light beam)

**Combine?**
Use tranquilizers and visual images

**Adapt?**
Change his diet so he’s listless and docile? Use behavior modification to make him a leader

**Modify?**
- Magnify—get guards who make Vernon look small and wimpy
- Put Vernon in a bigger cell, with huge furniture in it; use some kind of "body wrap" restraining coat
- Minify—use a small object to surprise and control him (mace? stun gun?)

**Put to other uses?**
Make Vernon the wrestling coach? Get him to start a sumo team?

**Eliminate?**
The prison—put him on a desert island, with shark-infested water—airlift supplies

**Rearrange? Reverse?**
Make him the guard within a special security block; Keep changing his hours and schedule until he gets confused


**VERNON CASE STUDY**

Figure 7.6. An example of SCAMPER.

“Menu” of questions to choose from when you need to stimulate your idea flow. Figure 7.6 demonstrates SCAMPER used for the Vernon Case Study.

**Forcing Relationships**

There are also a number of techniques to help you generate ideas that are unusual, original, or high in novelty by attaining greater “stretch” or “distance” from one’s initial approach or ideas. These techniques involve forcing yourself to move in new or more unusual direc-
tions by deliberating looking in places or directions you not usually have considered. In some approaches, this is described as “going on an excursion” to search for new possibilities or connections. We will illustrate two easily-used strategies in this category: the force fit technique and the sensory search for relationships.

**Force Fit**

Have you ever noticed that new ideas sometimes come to you when you are looking at one thing—and suddenly see something else? The object you looked at probably had nothing at all to do with the problem, but, often very suddenly, looking at it led you to think of a new or very original idea for the problem. The force fit technique is designed to help idea-generation happen.

**Directions for Force Fit**

When you want to search for some novel or unusual ideas for a problem on which you're working, take a break. During your break, look around the room, or, even better, go out for a walk. You might try picking up a magazine, a newspaper, or even making a trip in person to a retail store (a grocery store, a department store, or the like).

1. While you are on your break, try to observe several items in the room or store, or on the pages of the material you're looking at. Write down the names of three to five things you see.

2. Don’t try to be selective; just capture on your list the first things you see. (Examples: in an office building—a vending machine, a fire extinguisher, a bicycle outside the door. In a magazine: a new car, a flag, a box of laundry soap. At the grocery store: frozen pizza, canned beans, or ripe bananas.)

3. When you return to your idea-generating session, take each of the items on your list, one at a time, and ask, “What ideas might this object give me to deal with my problem in a new way?” Take a few minutes to write down any new ideas that come to mind, then go on to the next object.
4. If you are working in a group, ask each person to name one object at a time for the group to use in searching for new ideas.

5. It is not unusual for the first reactions to be very literal, or to be puns or "play on words" reactions. Push yourself and others to develop the connection, such as by asking, "What does that suggest for our problem? How might that take our thinking in a new direction?"

6. Use objects that have come to your attention randomly, rather than trying to think of objects that "fit" the problem. The farther removed the objects are from your original view of the problem, the more likely they will stimulate some unusual or original possibilities.

7. Look at several objects—some may not suggest very much, and others may be very rich in new ideas. The technique is designed to help you stretch your thinking, not to be a substitute for thinking!

The force fit technique helps stimulate new and original thinking while maintaining the existing flow of ideas. In some situations, this may be all you need to stimulate fresh new possibilities. In other situations, it may be necessary to break away from the existing flow to generate ideas that are very different from those currently being generated.

**Sensory Search for Relationships**

You can use any or all your senses to take your mind away from the problem at hand so you will be able to explore several unrelated images or observations which can be used as starting points or "springboards" for creating novel ideas. Often, rich new possibilities emerge when you put ideas or images together that you never would have expected to be related to each other. If the flow of ideas, when alone or working in a group, slows down considerably, or all the ideas seem to be going in one direction, the sensory search techniques can help you discover some new and valuable possibilities. One such technique is called, *visually identifying relationships*
Figure 7.6. An example of SCAMPER. “menu” of questions to choose from when you need to stimulate your idea flow. Figure 7.6 demonstrates SCAMPER used for the Vernon Case Study.

Forcing Relationships

There are also a number of techniques to help you generate ideas that are unusual, original, or high in novelty by attaining greater “stretch” or “distance” from one’s initial approach or ideas. These techniques involve forcing yourself to move in new or more unusual direc-
4. If you are working in a group, ask each person to name one object at a time for the group to use in searching for new ideas.

5. It is not unusual for the first reactions to be very literal, or to be puns or "play on words" reactions. Push yourself and others to develop the connection, such as by asking, "What does that suggest for our problem? How might that take our thinking in a new direction?"

6. Use objects that have come to your attention randomly, rather than trying to think of objects that "fit" the problem. The farther removed the objects are from your original view of the problem, the more likely they will stimulate some unusual or original possibilities.

7. Look at several objects—some may not suggest very much, and others may be very rich in new ideas. The technique is designed to help you stretch your thinking, not to be a substitute for thinking!

The force fit technique helps stimulate new and original thinking while maintaining the existing flow of ideas. In some situations, this may be all you need to stimulate fresh new possibilities. In other situations, it may be necessary to break away from the existing flow to generate ideas that are very different from those currently being generated.

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