Using the SCAMPER Problem-Solving Technique to Increase Creative Thinking

What to Know

The SCAMPER problem-solving technique encourages people to use their imagination and creativity to generate new ideas. This method includes seven phases with corresponding questions to explore solutions.

- Substitute – can I change this?
- Combine – what can I combine?
- Adjust or adapt – how can I make an adjustment?
- Modify – can I modify it?
- Put to other uses – can it be used for something else?
- Eliminate – is there a reason I should eliminate it?
- Reverse – can I change the order?

SCAMPER is based on the idea that what is new is actually just a modification of existing things around you. The technique was first introduced by Bob Eberle to help solve problems or ignite creativity during a brainstorming session. Below is a more detailed description of each phase.

Substitute focuses on the parts that can be replaced with others. A decision is made to substitute part of the process with another.

Combine analyzes the possibility of merging two ideas or stages of the process in a more efficient solution.

Adapt refers to adjusting something for a better solution, ranging from minor to radical changes.

Modify refers to changing the process to increase innovative capabilities. This change is more than an adjustment because it focuses on the overall process.

Put to another use involves putting the current process into another purpose or using the existing situation to solve the problem.

Eliminate or elaborate identifies the parts of the process that can be eliminated to improve things or explore unnecessary steps.

Reverse explores the potential when changing the order of the problem-solving process.

The SCAMPER technique allows you to focus on the process of finding unusual and creative solutions to problems – as well come up with innovative ideas. This worksheet will help you solve a problem using this technique.

What to Do

Describe a problem for which you can apply the SCAMPER technique.

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You do not have to move through the steps in any particular order. Be creative as you brainstorm and complete the following steps by answering the questions. You may come up with your own questions for each section.

1. Substitute. Focus on making decisions to substitute part of the process with another. In the space below, answer any of the questions.

- What part of the process can be substituted without affecting the whole?
- Who or what can be substituted?
- What part in the process can be replaced with better alternatives?
- Can the time or place be changed?
- What will happen if I replace _____ with something else?
- Could I use another alternative?
- Can I substitute the current _____ with a better one?
- Can I replace the process with a simpler one?

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2. Combine analyzes the possibility of merging two ideas or stages of the process in a more efficient solution. In the space below, answer any of the questions.

- Can I merge two steps of the problem-solving process?
- Can I apply two processes at the same time?
- Can I combine resources with someone else?
- Can I mix two or more components or elements together?

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3. Adapt can range between minor to radical changes. In the space below, answer any of the questions.

- What would I need to change to reach better results?
- What else could be done?
- How can I improve the existing process?
- How can I adjust?
- How can I make the process more flexible?

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4. Modify is more than an adjustment because it focuses on the overall process. In the space below, answer any of the questions.

- How will modifying the process improve results?
- If things were different, what would the process look like?
- Can I change the process to work more efficiently?

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5. Put to another use concerns how to use the existing situation to solve the problem. In the space below, answer any of the questions.

- What are the benefits if used elsewhere?
- Can I add a specific step into the process to replace another?
- What are other ways I can use it?

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6. Eliminate or elaborate identifies the parts of the process that can be eliminated. In the space below, answer any of the questions.

- What would happen if I removed something?
- How can I achieve the correct outcome without specific parts of the process?
- Do I need this specific part?
- What would I do if I had to work with half my resources?

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7. Reverse the process or part of it to find alternative solutions. In the space below, answer any of the questions.

- What would happen if I reversed the process?
- How can I rearrange the status for a better solution?
- What if I consider it backwards?
- Can I interchange elements?

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Which phase was most helpful?

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Did you find a solution to your problem? Why or why not?

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Reflections on This Exercise

What was hard about this activity? Easy? Explain.

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Did this exercise allow you to identify strategies that work for you? Explain.

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How helpful was this exercise? _____
(1 = not very helpful, 5 = moderately helpful, 10 = extremely helpful)

What did you learn from this exercise?

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