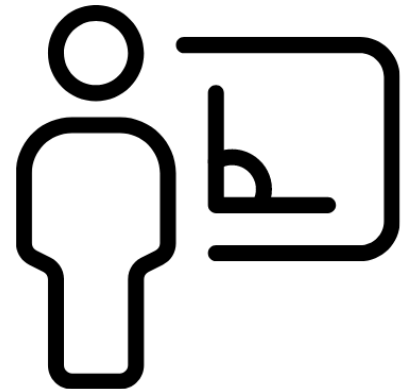


Instructors Guide



On the following pages is a sample module from our Instructor Guide. It provides the instructor with a copy of the material and a Lesson Plans box.

The key benefit for the trainer is the Lesson Plan box. It provides a standardized set of tools to assist the instructor for each lesson. The Lesson Plan box gives an estimated time to complete the lesson, any materials that are needed for the lesson, recommended activities, and additional points to assist in delivering the lessons such as Stories to Share and Delivery Tips.



Every problem has in it the seeds of its own solution. If you don't have any problems, you don't get any seeds.

Norman Vincent Peale

Module Two: The Problem Solving Method



To begin, let's look at the creative problem solving process. In this module, we will define "problem" and other situations that lend themselves to the creative problem solving process. We will introduce the concept of solving problems using a creative process. The approach we use in this course includes six steps, which are also introduced in this module.

What is a Problem?

The Random House Unabridged Dictionary includes several definitions for the word "problem." The definitions that we are most concerned with while learning about the creative problem solving process are:

- "any question or matter involving doubt, uncertainty, or difficulty," and
- "a question proposed for solution or discussion."



A problem can be defined as a scenario in which the current situation does not match the desired situation, or anytime actual performance does not match expectations. Other labels for a problem include challenges or opportunities, or any situation or circumstance for which there is room for improvement.

Estimated Time	10 minutes
Topic Objective	To understand what constitutes a problem and other situations that lend themselves to the creative problem solving process

Topic Summary	A problem occurs anytime that reality does not meet expectations. Problems can have other labels such as challenges or opportunities.
Recommended Activity	Have group members share problems they want to solve from their organizations or home lives.
Delivery Tips	This activity can be performed in large or small groups.

What is Creative Problem Solving?



Creative problem solving has evolved since its inception in the 1950s. However, it is always a structured approach to finding and implementing solutions.

The creative problem solving process involves creativity. The problem solvers come up with solutions that are innovative, rather than obtaining help to learn the answers or implementing standard procedures.

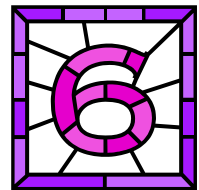
The creative problem solving process is at work anytime you identify solutions that have value or that somehow improve a situation for someone.

Estimated Time	10 minutes
Topic Objective	To define creative problem solving
Topic Summary	Creative problem solving is a structured approach to finding and implementing new solutions to areas where there is need for improvement.
Materials Required	<ul style="list-style-type: none"> • Flip chart paper • Markers
Materials Required	List of problems
Planning Checklist	<p>Before the workshop, write the following list on the flip chart.</p> <ul style="list-style-type: none"> • Improving market share of a product • Learning to play an instrument • Diagnosing an illness with a number of subtle usual symptoms • Handling high employee turnover • Figuring the cost per unit for a bulk purchase

Recommended Activity	<p>Review the list with the class and determine which items are appropriate for the creative problem solving process. Here are our answers.</p> <ul style="list-style-type: none"> • Improving market share of a product – YES • Learning to play an instrument – NO • Diagnosing an illness with a number of subtle usual symptoms – YES • Handling high employee turnover – YES • Figuring the cost per unit for a bulk purchase – NO
Review Questions	<p>What is the difference between creative problem solving and implementing well-known solutions?</p>

What are the Steps in the Creative Solving Process?

The Creative Problem Solving Process uses six major steps to implement solutions to almost any kind of problem. The steps are:



1. Information Gathering, or understanding more about the problem before proceeding
2. Problem Definition, or making sure you understand the correct problem before proceeding
3. Generating Possible Solutions using various tools
4. Analyzing Possible Solutions, or determining the effectiveness of possible solutions before proceeding
5. Selecting the Best Solution(s)
6. Planning the Next Course of Action (Next Steps), or implementing the solution(s)

Estimated Time	15 minutes
Topic Objective	To introduce the six-step creative problem solving process
Topic Summary	There are six steps in the creative problem solving process.
Materials Required	<ul style="list-style-type: none"> • Flip chart paper • Markers

Planning Checklist	<p>Before the workshop, write the following list on the flip chart.</p> <ul style="list-style-type: none"> • Information Gathering • Problem Definition • Generating Possible Solutions • Analyzing the Solutions • Selecting the Best Solution(s) • Planning the Next Course of Action (Next Steps)
Recommended Activity	<p>With the prepared flip chart list hidden, ask the group to generate a list of steps to take when solving a problem. Write the list of ideas on a piece of flip chart paper.</p> <p>Next, show the prepared list of the creative problem solving steps. Match the group's list with the actual list of steps. For example, if brainstorming solutions is on the group's list, match it to Generating Possible Solutions.</p>
Delivery Tips	<p>This activity can be performed in large or small groups.</p>
Review Questions	<p>What are the six steps in the creative problem solving process?</p>

Practical Illustration



Carl and Nathan were exhausted after spending their evening at work, trying to figure out how to solve the logistic problem of how many pallets of flour should go to each grocery store. They were ready to give up, until Carl suggested they use the Creative Problem Solving Process to discover the best solutions and next course of action. Using the six steps, Nathan and Carl wrote down and defined the problem, before discovering suitable solutions and selecting the best one. They were glad to get off work, once they had planned their next course of action, and relieved that the problem had finally been solved, and that the grocery stores would receive the correct amounts of flour.

Module Two: Review Questions

- 1.) What is a problem?
- a) any question or matter involving doubt, uncertainty, or difficulty
 - b) a situation for which there is room for improvement
 - c) an opportunity or challenge
 - d) all of the above

A problem can be defined as a scenario in which the current situation does not match the desired situation, or anytime actual performance does not match expectations. Other labels for a problem include challenges or opportunities, or any situation or circumstance for which there is room for improvement.

- 2.) Which step is not included in the Creative Problem Solving Process?
- a) Information Gathering
 - b) Generating Possible Solutions
 - c) Analysis of Possible Problems
 - d) Planning the Next Course of Action

Analyzing Possible Solutions (not problems), or determining the effectiveness of possible solutions before proceeding.

- 3.) How many steps are there in the Creative Problem Solving Process?
- a) Six
 - b) Two
 - c) Five
 - d) Eight

The Creative Problem Solving Process uses six major steps to implement solutions to almost any kind of problem.

- 4.) Select the correct order for the steps within the Creative Problem Solving Process
- a) Information Gathering; Generating Possible Solutions; Selecting the Best Solution; Problem Definition; Analyzing Possible Solutions; Planning the Next Course of Action
 - b) Information Gathering; Problem Definition; Generating Possible Solutions; Analyzing Possible Solutions; Selecting the Best Solution; Planning the Next Course of Action
 - c) Information Gathering; Problem Definition; Generating Possible Solutions; Analysis of Possible Problems; Selecting the Best Solution; Planning the Next Course of Action
 - d) Information Gathering; Planning the Next Course of Action; Selecting the Best Solution; Problem Definition; Analysis of Possible Problems; Generating Possible Solutions

Information Gathering, or understanding more about the problem before proceeding - Problem Definition, or making sure you understand the correct problem before proceeding - Generating Possible Solutions using various tools - Analyzing Possible Solutions, or determining the effectiveness of possible solutions before proceeding - Selecting the Best Solution(s) - Planning the Next Course of Action (Next Steps), or implementing the solution(s)

- 5.) What does the Problem Definition step entail?
- a) Understanding more about the problem before proceeding
 - b) Making sure you understand the correct problem before proceeding
 - c) Implementing solutions
 - d) Determining the effectiveness of possible solutions before proceeding

Problem Definition, or making sure you understand the correct problem before proceeding

- 6.) Which of these statements is FALSE?
- a) Creative problem solving came about in the 1950s
 - b) A problem is represented by a current situation which matches a desired situation
 - c) Planning the Next Course of Action is a step in the Creative Problem Solving Process
 - d) You should understand more about a problem before proceeding to further steps

A problem can be defined as a scenario in which the current situation does not match the desired situation.

- 7.) What is another label for a problem?
- a) A challenge
 - b) An opportunity
 - c) A solution
 - d) Both a and b

Other labels for a problem include challenges or opportunities, or any situation or circumstance for which there is room for improvement.

8.) When is the Creative Problem Solving Process at work?

- a) Instantly, when a problem presents itself
- b) When you are asleep
- c) When you consider a solved problem
- d) When you identify solutions to improve a situation

The creative problem solving process is at work anytime you identify solutions that have value or that somehow improve a situation for someone.

9.) What does the Analyzing Possible Solutions step entail?

- a) Generating possible solutions for your problem
- b) Implementing solutions for your problem
- c) Determining the effectiveness of possible solutions before proceeding
- d) Both a and c

Analyzing Possible Solutions, or determining the effectiveness of possible solutions before proceeding

10.) Which of the following statements is TRUE?

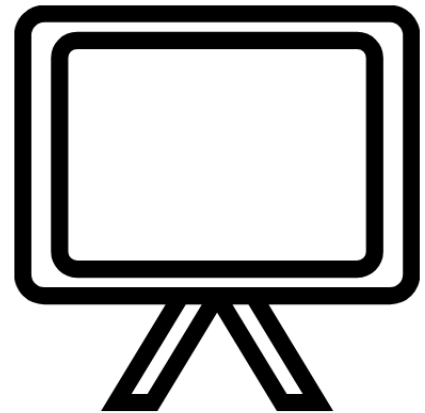
- a) You must gather information about your problem before you proceed with the solving process
- b) Problems are often unsolvable
- c) You should always consider solutions before analyzing the problem at hand
- d) Solutions should always stay within a grouping of set rules

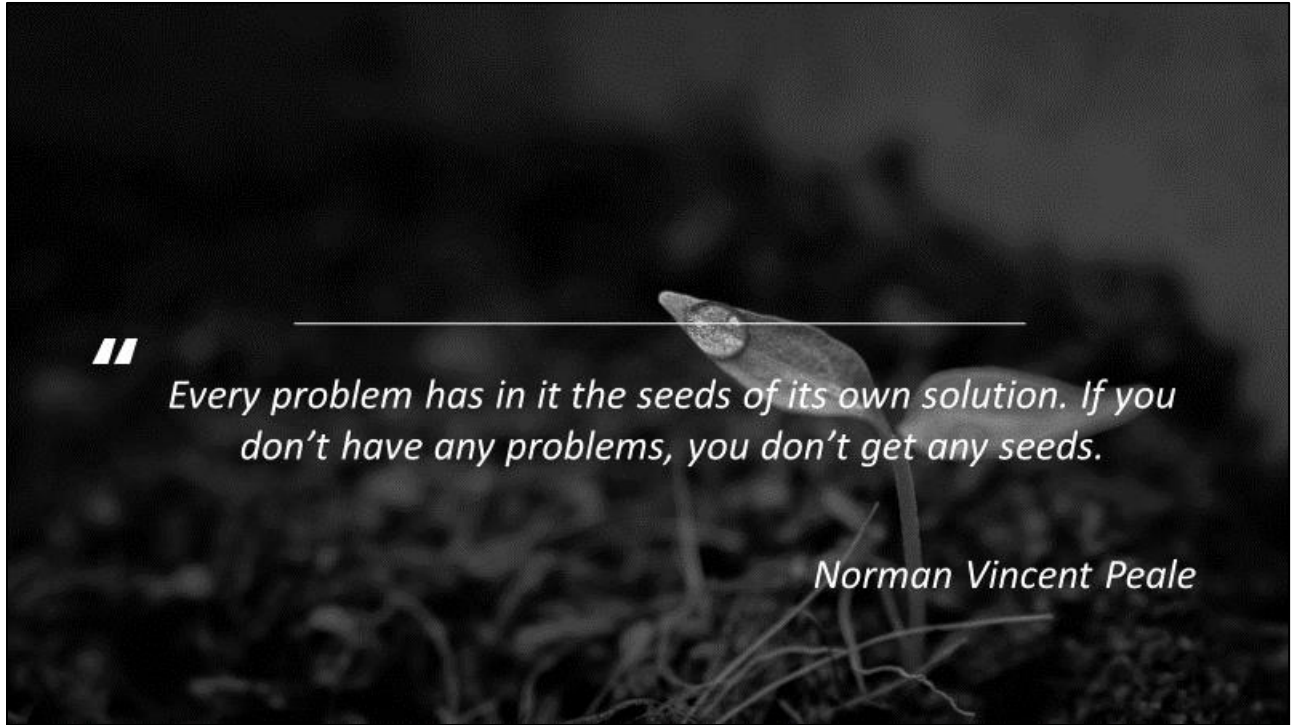
Information Gathering, or understanding more about the problem before proceeding

PowerPoint Slides



Below you will find the PowerPoint sample. The slides are based on and created from the Instructor Guide. PowerPoint slides are a great tool to use during the facilitation of the material; they help to focus on the important points of information presented during the training.





MODULE TWO

The Problem Solving Method

What is the creative problem solving process? There are six steps to look at.



What Is a Problem?

- “Any question or matter involving doubt, uncertainty, or difficulty.”
- “A question proposed for solution or discussion.”

What is Creative Problem Solving?

A structured approach to finding and implementing solutions.





What are the Steps in the Creative Solving Process?

The Creative Problem Solving Process uses six major steps to implement solutions to almost any kind of problem.

Practical Illustration



- What is a Problem?
- What is Creative Problem Solving?
- What are the Steps in the Creative Solving Process?

Module Two: Review Questions

1. What is a problem?

A. Any question or matter involving doubt, uncertainty, or difficulty

B. A situation for which there is room for improvement

C. An opportunity or challenge

D. All of the above

Quick Reference Sheets



Below is an example of our Quick Reference Sheets. They are used to provide the participants with a quick way to reference the material after the course has been completed. They can be customized by the trainer to provide the material deemed the most important. They are a way the participants can look back and reference the material at a later date. They are also very useful as a take-away from the workshop when branded. When a participant leaves with a Quick Reference Sheet it provides a great way to promote future business.



Creative Problem Solving Quick Reference Sheet



Six Steps of Creative Problem Solving Process

The Creative Problem Solving Process uses six major steps to implement solutions to almost any kind of problem. The steps are:



- Information Gathering, or understanding more about the problem before proceeding
- Problem Definition, or making sure you understand the correct problem before proceeding
- Generating Possible Solutions using various tools
- Analyzing Possible Solutions, or determining the effectiveness of possible solutions before proceeding
- Selecting the Best Solution(s)
- Planning the Next Course of Action (Next Steps), or implementing the solution(s)

Understanding Types of Information

There are many different types of information.

The following list includes information you will need to consider when beginning the creative problem solving process:

- Fact
- Opinion
- Opinionated Fact
- Concept
- Assumption
- Procedure
- Process
- Principle



Identify Mental Blocks

There are many types of mental blocks. Most blocks to problem-solving fit into the following categories:

- **EMOTIONS:** Emotional blocks can include anything from a fear of risk taking to a tendency to judge or approach the problem with a negative attitude.
- **DISTRACTIONS:** Too much information, irrelevant information, or environmental distractions can prevent a productive brainstorming session.
- **ASSUMPTIONS:** If problem solvers assume there is only one correct solution, they will be unable to generate additional ideas. Assumptions also become mental blocks from stereotypes or perceived boundaries where none exist.
- **CULTURE:** Culture defines the way we live and limits the ideas we may generate or consider. However, not every culture is the same. Sometimes the cultural blocks are unnecessary, and sometimes we do not consider cultural limitations when we should.
- **COMMUNICATION DIFFICULTIES:** If we cannot communicate our ideas in some way – speaking, writing, or pictures – these communication difficulties can block our progress in generating ideas.

The Six Thinking Hats

- **WHITE HAT – FACTS AND INFORMATION:** This hat includes Information collected or identified as missing.
- **RED HAT – FEELINGS AND EMOTION:** This hat includes feelings, including gut reactions to ideas or items identified in another area.
- **BLACK HAT – CRITICAL JUDGMENT:** This hat includes details about obstacles to solving the problem or other negative connotations about an item or idea. Since people are naturally critical, it is important to limit black hat thinking to its appropriate role.
- **YELLOW HAT – POSITIVE JUDGMENT:** This hat is the opposite of the black hat. It includes details about the benefits of an idea or issue, or thoughts about favoring an idea. It is still critical thinking and judgment, as opposed to blind optimism.
- **GREEN HAT – ALTERNATIVES AND LEARNING:** This hat concerns ideas about new possibilities and thinking about implications rather than judgments. Green hat thinking covers the full spectrum of creativity.
- **BLUE HAT – THE BIG PICTURE:** This hat serves as the facilitator of the group thinking process. This hat can be used to set objectives both for the problem solving process and the thinking session itself.

Gathering Information

Here are some of the ways you can collect information about a problem:

- Conduct interviews.
- Identify and study statistics.
- Send questionnaires out to employees, customers, or other people concerned with the problem.
- Conduct technical experiments.
- Observe the procedures or processes in question first hand.
- Create focus groups to discuss the problem.

Determining Where the Problem Originated

Successful problem solvers get to the root of the problem by interviewing or questioning anyone who might know something useful about the problem. Ask questions about the problem, including questions that:

- Clarify the situation.
- Challenge assumptions about the problem.
- Determine possible reasons and evidence.
- Explore different perspectives concerning the problem.
- Ask more about the original question.

If you did not define the problem, find out who did. Think about that person's motivations. Challenge their assumptions to dig deeper into the problem.

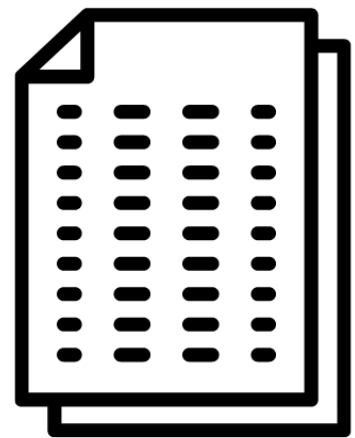
Handouts



Each course is provided with a wide range of worksheets.

Worksheets help check your participants' understanding. If a lesson calls for a worksheet, it will be listed in the Lesson Plan box under Materials Required. All worksheets are customizable and can be found in the Appendix of the Instructor Guide and the Training Manual.

As a trainer, icebreakers give your participants the opportunity to get to know each other better or simply begin the training session on a positive note. Icebreakers promote collaboration, increase engagement, and make your training more light-hearted and fun. Below is an example from the Icebreakers folder.



Icebreaker: Thinking Outside the Box

PURPOSE

To introduce participants to each other and to get them thinking creatively

MATERIALS REQUIRED

1. Name tag for each person
2. Markers
3. Index cards
4. A cardboard box large enough to hold the remaining items
5. A small skillet
6. A jump rope or short length of plain rope
7. An envelope
8. A sheet of newspaper
9. A rubber band
10. A coffee stirrer
11. A nail
12. A chenille stick (pipe cleaner)

You can substitute the items in the box to suit your requirements. The purpose is to take everyday items and to have the participant's think of the selected items in new ways.

PREPARATION

Have each participant fill out a name tag.

TIME REQUIRED

20 minutes

ACTIVITY

Have everyone introduce themselves by stating their names and one statement about themselves, such as their current positions, or what most interests them about creative problem solving.

Divide the participants into small groups of four to six people. Each group should get 1-2 items from the box (or the box itself). The challenge is to think of at least five creative ways to use each object, BESIDES

the conventional purpose the item usually serves. Tell the teams the rule is no censoring – all ideas are encouraged – the zanier, the better! Have the teams write down their suggestions on index cards. Encourage the teams to come up with the most creative suggestions they can. If time permits, have each team trade objects and repeat the activity.

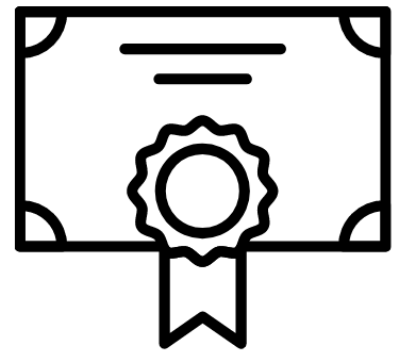
For example, the sheet of newspaper could be folded to become a hat or a boat; it could be shredded and used as packing material; it could even be used as substitute toilet paper in a pinch! Encourage the teams to stretch their imaginations.

At the end, have each team share its ideas with the whole group.

Certificate of Completion



Every course comes with a Certificate of Completion where the participants can be recognized for completing the course. It provides a record of their attendance and to be recognized for their participation in the workshop.



CERTIFICATE OF COMPLETION

[Name]

*Has mastered the course
Creative Problem Solving*

Awarded this _____ day of _____, 20____

Presenter Name and Title
