

Overview

Problem solving is one of the most important skills for success in the workplace and at home. The ability to identify a problem, evaluate all of the relevant factors and develop a good solution is essential. Whether you are experiencing conflict with a co-worker, dealing with multiple tasks that need to be prioritized, or trying to track a shipment that hasn't arrived, problem solving is a part of everyday life.

This tool is designed to help you practice and improve your problem solving skills. It has four sections:

Section 1: Problem Solving Techniques — Learn about five different problem solving techniques that can be used in different situations (e.g. in groups or when solving problems on your own).

Section 2: Problem Solving Worksheet — Use this worksheet to work your way through the problem solving process.

Section 3: Problem Solving Activities — Practice the different problem solving techniques by completing various activities.

Section 4: Problem Solving Log — Log your problem solving experiences in order to keep track of your accomplishments and learn from your mistakes.

This tool is also customizable! You can use the problem solving techniques and worksheet to solve a problem you are facing at work or at home.

To learn more about literacy and essential skills and other related tools, visit
hrsdc.gc.ca/essentialskills

**Literacy and Essential Skills—
for LEARNING, WORK and LIFE**

Problem SOLVING Techniques

Five problem solving techniques are described in this section. Read each one carefully and, when faced with a problem, choose one that you feel comfortable with and that best suits the situation.

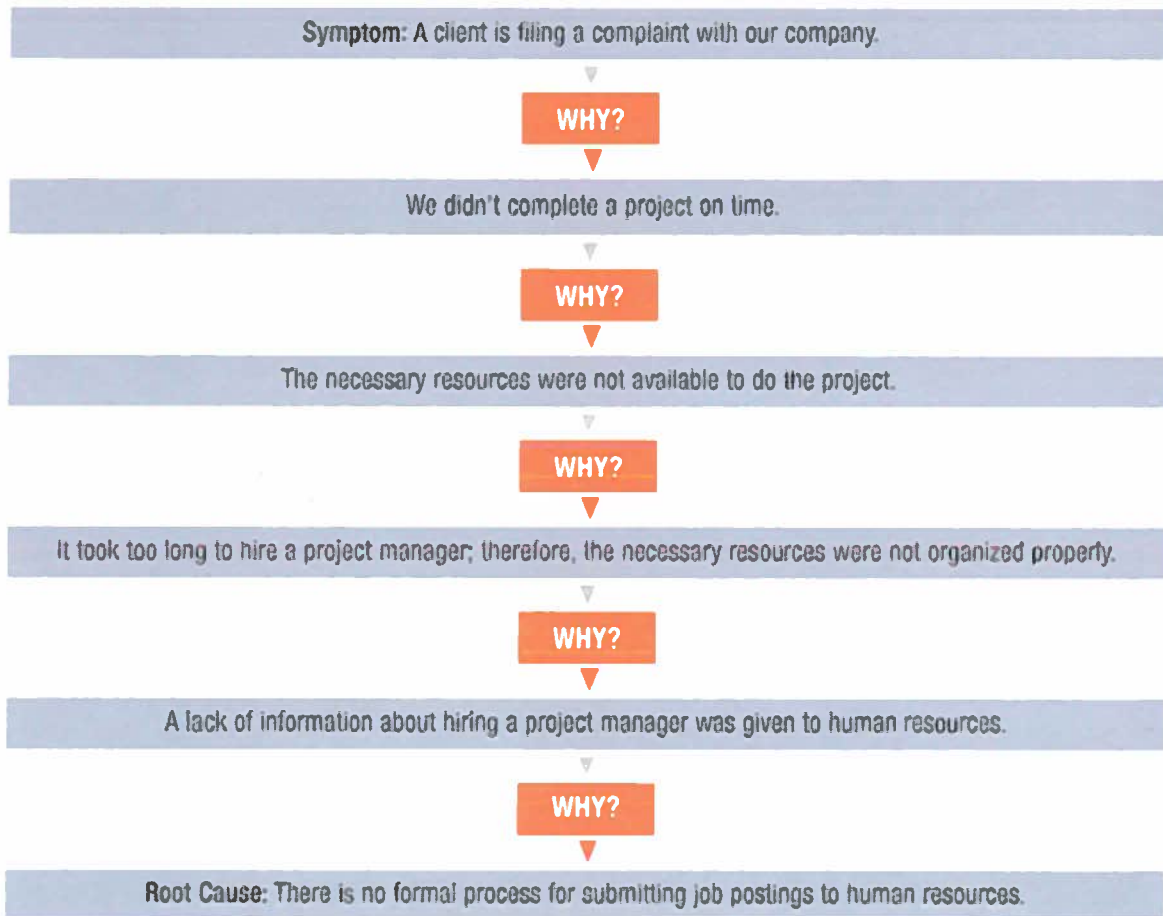
- ✓ The Five Whys Technique
- ✓ The PROACT Technique
- ✓ The Creative Technique
- ✓ The Collaboration Technique
- ✓ The Plan, Do, Check, Act Technique

The following techniques can be used when problem solving in groups or on your own.

1 FIVE WHYS TECHNIQUE

Senge, P. (1999). *The Fifth Discipline, Fieldbook*. New York: Doubleday.

The Five Whys Technique can be used to identify the root cause(s) of a problem. Often, what appears to be a problem is actually a symptom (sign, indication) of a bigger issue that needs to be resolved. You can use this technique to help determine the reason the problem exists by asking “why” certain things have occurred. Generally, you should be able to reach the root cause(s) after asking a series of five whys; however, the number can vary depending on the situation. For example:



Once you have determined the root cause(s) of the problem, take the appropriate steps to resolve the issue.

2 PROACT TECHNIQUE

Hammond, J., Keeney, R., & Raiffa, H. (1999). *Smart Choices*. Boston: Harvard Business School Press.

The PROACT Technique encourages a thorough problem solving approach. The problem is examined in detail and potential solutions are carefully reviewed before any decisions are made. Answer the questions in each of the steps to work towards a solution.

PR	Problem	Define and examine the problem: What are the symptoms of the problem? What is the root cause - the real problem? How big is the problem? Is it severe or minor? Who is involved in the problem? What are the effects of the problem? How much is it costing you (financially, emotionally, etc.) to have the problem? Why is solving the problem important? What information do you need to gather in order to solve the problem?
O	Objectives	Determine your objectives: What do you want to accomplish? How will you know if the problem is solved?
A	Alternatives	Identify the alternatives (options): What can you do to address the problem? Identify at least three options.
C	Consequences	Consider the consequences of each option: How well does each option satisfy your objectives? What are the advantages and disadvantages of each option?
T	Tradeoffs	Think about the tradeoffs associated with the options: What criteria are most important in this situation? What are your priorities? What will be given up or gained by choosing one option versus another?

When you have completed the steps, choose a solution and take action.

The following techniques can be used when problem solving in a group setting.

3 CREATIVE TECHNIQUE

Reflective and Creative Problem Solving. (2004). Saskatoon: Saskatoon Public School Division, Inc.

It can be helpful to include a variety of people and ideas in the problem solving process. The Creative Technique uses group work and brainstorming to develop solutions.

Orientation	<ul style="list-style-type: none">• Prepare to work together. Agree on acceptable behaviour, rules for discussion, time commitments, etc.• List the symptoms of the problem.
Preparation and Analysis	<ul style="list-style-type: none">• Discuss the symptoms and why they exist.• Determine the root cause of the problem — the real problem.
Brainstorm	<ul style="list-style-type: none">• List as many potential solutions to the problem as possible. At this point, all ideas should be considered valid.
Incubation	<ul style="list-style-type: none">• Before choosing a solution, abandon the problem for several days (if possible). Allow enough time to adopt a fresh perspective, but not long enough to forget earlier work.
Synthesis and Evaluation	<ul style="list-style-type: none">• Establish the criteria for a good solution.• Look at all of the potential solutions. Try to combine the best features of each to create a solution with the greatest number of positive outcomes and the smallest number of negative outcomes.

4 COLLABORATION TECHNIQUE

Gorski, P. C. (2006). *Collaborative Multicultural Problem solving with Case Studies: A 6-Step Model*. Retrieved November 29, 2007 from <http://www.edchange.org/multicultural/resources/model.html>.

The Collaboration Technique also involves group work, but is more focused on dealing with sensitive issues that involve a variety of people and perspectives. It encourages respect and understanding for everyone involved in a situation.

Problem Identification	<ul style="list-style-type: none"> • In a group, identify the symptoms of the problem. • Determine the root cause of the problem — the real problem.
Perspectives	<ul style="list-style-type: none"> • Create a list of the people, groups and/or organizations impacted by the problem. • Consider how each of them is affected by the problem. (Note: Include anyone who is affected by the situation directly or indirectly. It might be necessary to make some assumptions for this step, stressing the importance of involving as many opinions and perspectives as possible in this process).
Challenges and Opportunities	<ul style="list-style-type: none"> • With the different people, groups and/or organizations in mind, consider the individual or organizational challenges and constraints within which the problem must be solved (e.g. company policy). How will these affect the problem solving process? • Consider the learning and growth opportunities presented by the problem for everyone involved. What can be learned? What progress can be made by solving the problem?
Strategies	<ul style="list-style-type: none"> • Brainstorm possible solutions. Think of everyone involved and remember that any solution could affect everyone differently. • Listen to and respect each other's ideas. Record every idea, no matter how unreasonable it may sound to individuals in the group.
Solutions	<ul style="list-style-type: none"> • Using the brainstormed ideas, come up with at least two or three specific solutions. They can focus on the individual or the underlying issues at a group or organizational level. • Develop a formal plan of action. Keep in mind the different people and perspectives involved.
Expected Outcomes	<ul style="list-style-type: none"> • List the outcomes you expect as a result of the solutions you identified. • Revisit the Perspectives step to ensure the solutions are fair and respectful to everyone involved.

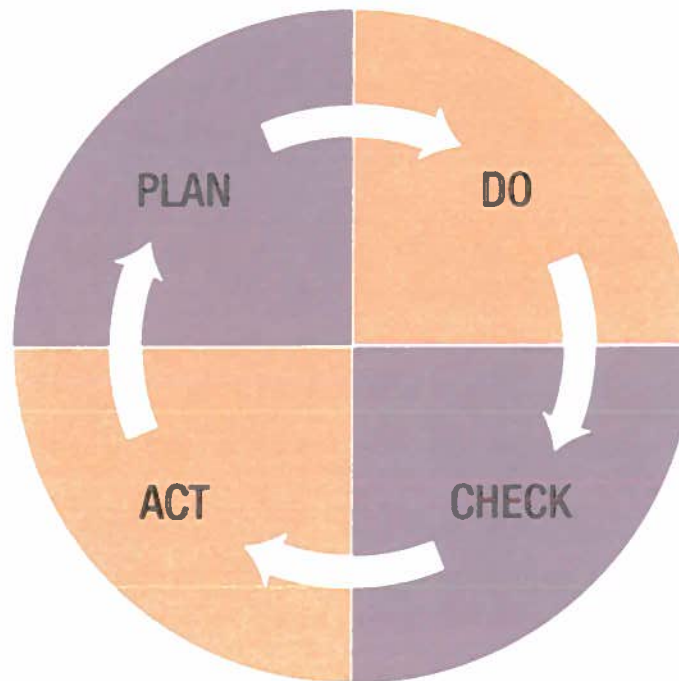
The following technique encourages a preventative approach to problem solving.

5 PLAN, DO, CHECK, ACT (PDCA) TECHNIQUE

Robbins, S. P., & Langton, N. (2003). *Organizational Behaviour, Concepts, Controversies, Applications* (3rd Canadian Ed.). Toronto: Pearson Education Canada.

The PDCA Technique is focused on continuous improvement. Rather than solving a problem after it has happened, this technique anticipates how a situation or process can be improved so that problems can be avoided.

- PLAN**
- Identify a process or situation that needs to be improved.
 - Develop an action plan (solutions) to address it.
- DO**
- Carry out the action plan.
- CHECK**
- Study the results of carrying out the action plan. What did you learn? Were improvements made?
- ACT**
- Make a decision. If the action plan was successful, use it to plan future improvements. If it was not successful, repeat the cycle and develop a new approach.



Problem SOLVING Worksheet

This worksheet will help guide you through the problem solving process. Complete each step to help you work towards a solution. Insert steps from the different problem solving techniques as required. Keep the worksheet handy and use it when you need to solve a problem. Visit our website, hrsdc.gc.ca/essentialskills, to download additional copies of this worksheet.

STEP 1: WHAT IS THE PROBLEM?

- What are the symptoms of the problem?
- What is the root cause of the problem — the real problem?

STEP 2: WHAT ARE THE POTENTIAL SOLUTIONS?

- Are there any factors that you need to consider when choosing a solution (e.g. policies, procedures, etc.)?
- What are the advantages and disadvantages of each possible solution?
- What are the consequences of each possible solution?

STEP 3: WHAT IS THE BEST SOLUTION?

- Which solution is the best overall? Why?
- Choose a solution and act on it!

STEP 4: IS THE PROBLEM SOLVED?

- Did the chosen solution solve the problem? If not, return to Step 1 to review the problem again. Try using a different approach.

Problem SOLVING Activities

The following activities are designed to help you practice and improve your problem solving skills. They focus on different situations and can be solved using the problem solving techniques and worksheet provided.

Instructions:

- 1 Choose one of the activities provided or develop your own.
- 2 Select the problem solving technique(s) that you think is best suited to the situation.
- 3 Use the chosen technique(s) and Problem Solving Worksheet to complete the exercise.

Helpful Problem Solving Tips:

- ✓ Make sure that you understand the problem. Don't rush into the problem solving process before you understand the different aspects of the issue. Take your time!
- ✓ There could be many possible solutions to one problem. Choose one that you feel most comfortable with and that you think properly addresses the problem. If you are not sure about your decision, ask a co-worker, supervisor or a friend for feedback.
- ✓ It's okay to make mistakes. Don't get frustrated if the problem solving process does not go smoothly. Stay positive and learn from your mistakes.
- ✓ Keep track of your problem solving experiences. You may face similar problems in the future and could use lessons learned to avoid or resolve them (see Problem Solving Log).

ACTIVITY 1

SCENARIO

A cashier is working the night shift at a 24-hour grocery store. He notices that a customer is acting suspiciously and has a large bulge under her coat. The cashier thinks the customer is shoplifting. The cashier's responsibilities include loss prevention.

ACTIVITY

Pretend that you are the cashier. Solve the problem using the techniques and worksheet provided.

THINGS TO CONSIDER

- Are there existing policies or procedures to consider?
- Do you approach the customer? If so, how?
- What if the customer becomes aggressive?

TIPS

- This activity can be used to practice problem solving in any customer service or loss-prevention setting. It can also be used to develop your conflict resolution skills.
- This activity can be done by role playing with co-workers or friends (e.g. one person is the cashier and one is the customer).

ACTIVITY 2

SCENARIO

An early childhood educator is employed at a nursery school. One of the children often becomes upset and aggressive towards the other children when her parents leave the school. This often leads to the other children becoming upset as well. School policy states that no child can emotionally or physically harm another child. The educator consults with the parents about the issue.

ACTIVITY

Pretend that you are the educator or parent of the child. Solve the problem using the techniques and worksheet provided.

THINGS TO CONSIDER

- Are there existing policies or procedures to follow?
- How do you ensure that everyone's (i.e. children, parents and educator) interests are taken into consideration?

TIP

- This activity can be done by role playing with co-workers or friends (e.g. one person is the educator and one is the parent).

ACTIVITY 3

SCENARIO

A front desk clerk is working at a large hotel. At 10pm, she receives a complaint from a hotel guest that some of the guests staying on the same floor are having a party and are very loud. He asks that the issue be resolved as soon as possible. Hotel policy states that excessive noise will not be tolerated after 9:30pm.

ACTIVITY

Pretend that you are the front desk clerk. Solve the problem using the techniques and worksheet provided.

THINGS TO CONSIDER

- Are there existing policies or procedures to consider?
- Do you approach the guests that are causing noise? If so, how?
- How do you ensure that everyone involved is satisfied?

TIPS

- This activity can be used to practice problem solving in any customer service setting. It can also be used to develop your conflict resolution skills.
- This activity can be done by role playing with co-workers or friends (e.g. one person is the clerk and one is the guest).

ACTIVITY 4

SCENARIO

A production clerk is working at a small car manufacturing plant. He is responsible for inspecting parts and deciding if they meet the quality standards. The clerk receives a large batch of parts and sees that the production quality is questionable. Ordering new parts could cost the plant time and money, but using poor quality parts could cause problems in the future.

Due to the fast-paced production schedule, the clerk must quickly decide what to do with the questionable parts. The company has an excellent reputation for meeting high quality standards.

ACTIVITY

Pretend that you are the production clerk. Solve the problem using the techniques and worksheet provided.

THINGS TO CONSIDER

- Are there existing policies or procedures to consider?
- Who should you approach about the issue?
- Are the parts made in-house, or are they from a supplier?

TIPS

- This activity can be used to practice problem solving in any fast-paced setting.
- This activity can be done by role playing with co-workers or friends (e.g. one person is the production clerk and one is the supplier or supervisor).

ACTIVITY 5

SCENARIO

A server is working at a busy restaurant. She is serving eight tables and is rushing to keep up. One of the customers calls her over to say he is not happy with the quality of the service and, therefore, refuses to pay the bill. The server is trying to deal with the customer, while continuing to serve the other patrons. The restaurant is committed to ensuring that, generally, customers leave satisfied with their experience.

ACTIVITY

Pretend that you are the server. Solve the problem using the techniques and worksheet provided.

THINGS TO CONSIDER

- Are there existing policies or procedures to consider?
- Who should you approach about the issue?
- What if the customer becomes angry? What if other customers become frustrated?

TIPS

- This activity can be used to practice problem solving in any customer service setting. It can also be used to develop your conflict resolution skills.
- This activity can be done by role playing with co-workers or friends (e.g. one person is the server and one is the customer).

Problem SOLVING Log

This log will help you keep track of your problem solving experiences. Use it to monitor your progress with problem solving or to solve future problems by looking back on how you successfully dealt with similar situations. Visit our website, hrsd.c.gc.ca/essentialskills, to download additional copies of this log.

Date:

Problem:

Challenges:

Chosen Solution(s):

Result(s):

Lessons Learned:

Date:

Problem:

Challenges:

Chosen Solution(s):

Result(s):

Lessons Learned:

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