

PROBLEM-SOLVING

INTRODUCTION

Problem solving is at the core of human evolution. It is the methods we use to understand what is happening in our environment, identify things we want to change and then figure out the things that need to be done to create the desired outcome.

Problem solving is the source of all new inventions, social and cultural evolution, and the basis for market-based economies. It is the basis for continuous improvement, communication and learning.

WHAT IS PROBLEM-SOLVING

Problem-solving is the process of

Observing what is going on in your environment

Identifying things that could be changed or improved

Diagnosing why the current state is the way it is and the factors and forces that influence it

Developing approaches and alternatives to influence change

Making decisions about which alternative to select

Taking action to implement the changes

Observing impact of those actions in the environment.

IMPORTANCE OF PROBLEM SOLVING

1) Fixing things that are broken

Problem-solving gives us a mechanism for identifying flawed and broken things, like activities, interactions, behaviors, processes etc., figuring out why they are broken and determining a course of action to fix them.

2) Addressing risk

Problem-solving can be applied to the anticipated future events and used to enable action in the present to influence the likelihood of the event occurring and/or alter the impact if the event does occur.

3) Improving performance

Problem-solving helps us understand relationships and implement the changes and improvements needed to compete and survive in a continually changing environment.

4) Seizing opportunity

Problem-solving enables us to identify and exploit opportunities in the environment and exert (some level of) control over the future.

TECHNIQUES OF PROBLEM SOLVING

PAR Method (Problem, Action, Results)

Phase one: Problem- Identify and Clearly Define Problem

- 1) **Problem.** What is the problem?
- 2) **Discovery.** Did you identify the problem or was it brought to your attention.
- 3) **Who.** Who does this problem affect?
- 4) **What.** What is the effect of the problem?
- 5) **When.** When did this problem occur?
- 6) **Where.** Where did this problem start?
- 7) **Why?** Why did this problem occur?
- 8) **How?** How often does this problem happen?

Phase Two: Action — Develop an Action Plan

- 1) **Action Steps.** What action steps will you use to solve the problems?
- 2) **Options.** What are your options?
- 3) **Resources.** What do you need to solve the problem?
- 4) **Independent or Team.** Can you solve the problem alone or will you need assistance?
- 5) **Costs.** Are there costs associated with solving the problem?
- 6) **Barriers.** Is there time or other barriers associated with solving the problem?
- 7) **Approval.** Can you solve the problem without management approval? Are you a risk taker?
- 8) **Strategy.** If your plan requires management approval — how will you present and support your action plan?
- 9) **Target Date.** Can I implement my plan immediately or will I need to set a target date?
- 10) **Resolved.** Who will I need to inform the problem is solved?

Phase Three: Results — How to Evaluate Results

1. **Action Plan.** What are the results of the action plan?
2. **Conclusion.** How well did you solve the problem?
3. **Options.** What would you do differently? Why?
4. **Root Causes.** What did you learn that is beneficial to solve future problem?

Kepner-Tregoe Method

In this problem-solving technique, some typical questions, as given below, are asked with the intent of getting to the root cause of the problem:

- The actual point where the problem is causing trouble

- The points where there is no problem
- Exactly when the problem started to occur
- Exactly when it definitely was not there

As a starting point, the five W's are used:

- Who?
- What?
- Where?
- When?
- Why?

In some cases, 'How' and 'How much' are also added to the five W's.

Sources:

<https://web.archive.org/web/20240704083548/https://kepner-tregoe.com/blogs/what-is-problem-solving-and-why-is-it-important/>

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