



PB INSTITUTE OF RESEARCH AND TECHNOLOGY

P.O Box 21457-00100

Nairobi - Kenya

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Practical Problem-Solving and Critical Thinking for Professionals

Duration: 10 days

On-Site

01 Who Should Attend

- Project and Programme Managers
- Business Analysts
- Operations Professionals
- HR Professionals
- Finance and Accounting Professionals
- Customer Service Professionals
- Decision-makers and Department Heads
- Professionals involved in process improvement
- Anyone seeking stronger analytical and decision-making skills

02 About the Course

This practical training course develops the analytical, creative, and decision-making capabilities professionals need to solve complex workplace problems effectively. Participants will learn how to identify root causes, evaluate evidence, challenge assumptions, generate practical solutions, and make sound decisions in situations involving uncertainty and competing priorities.

The course combines structured problem-solving frameworks with critical-thinking techniques and practical workplace scenarios to help participants move from reactive responses to systematic, evidence-based solutions.



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03 Workshop Objectives

- Understand the principles of critical thinking and problem-solving.
- Identify and define problems clearly and accurately.
- Analyze situations and gather relevant information.
- Develop and evaluate potential solutions.
- Utilize problem-solving frameworks and techniques.
- Make informed decisions based on logical reasoning.
- Implement solutions and monitor their effectiveness.
- Identify and overcome cognitive biases.
- Develop creative problem-solving approaches.
- Improve their ability to think strategically and analytically.
- Enhance their ability to adapt to changing circumstances.
- Improve their decision making skills.
- Contribute to improved problem resolution within their organization.
- Stay up-to-date with the latest trends and best practices in problem-solving.
- Become a more confident and effective problem-solver.
- Understand ethical considerations in problem-solving and decision-making.
- Learn how to use problem-solving tools and techniques effectively.

04 Module Topics

Module 1: Foundations of Problem-Solving and Critical Thinking

- Understanding the importance of problem-solving and critical thinking in the workplace.
- Defining critical thinking and its core components.
- Identifying common barriers to effective problem-solving.
- Understanding the problem-solving process and its stages.
- Developing a problem-solving mindset.



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Module 2: Problem Identification and Definition

- Techniques for identifying and clarifying problems.
- Distinguishing between symptoms and root causes.
- Using problem definition tools (e.g., problem statements, Ishikawa diagrams).
- Gathering and analyzing relevant information.
- Clearly defining problem boundaries and scope.

Module 3: Analytical Thinking and Information Gathering

- Developing analytical thinking skills.
- Utilizing data analysis techniques (e.g., data visualization, trend analysis).
- Evaluating the reliability and validity of information.
- Identifying patterns and trends in data.
- Using research and inquiry to gather information.

Module 4: Generating and Evaluating Potential Solutions

- Brainstorming and ideation techniques.
- Developing creative problem-solving approaches.
- Evaluating potential solutions using criteria and frameworks.
- Conducting risk assessments and cost-benefit analyses.
- Prioritizing solutions based on feasibility and impact.

Module 5: Decision-Making and Solution Selection

- Understanding decision-making models and frameworks.
- Making informed decisions based on logical reasoning and evidence.
- Considering ethical implications of decisions.
- Utilizing decision-making tools (e.g., decision matrices).
- Communicating decisions effectively.

Module 6: Implementation and Monitoring



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- Developing action plans and implementation strategies.
- Assigning responsibilities and setting deadlines.
- Monitoring progress and measuring results.
- Adapting solutions based on feedback and evaluation.
- Implementing feedback loops for continuous improvement.

Module 7: Cognitive Biases and Critical Thinking Traps

- Understanding common cognitive biases and their impact on decision-making.
- Identifying and overcoming critical thinking traps (e.g., confirmation bias, groupthink).
- Developing strategies for mitigating bias in problem-solving.
- Promoting objective and unbiased thinking.
- Understanding the importance of diverse perspectives.

Module 8: Creative Problem-Solving and Innovation

- Developing creative thinking skills and techniques.
- Encouraging innovation and experimentation.
- Utilizing design thinking and other creative problem-solving frameworks.
- Fostering a culture of creativity and innovation.
- Overcoming mental blocks and fostering originality.

Module 9: Strategic Thinking and Continuous Improvement

- Developing strategic thinking skills and applying them to problem-solving.
- Understanding the relationship between problem-solving and organizational goals.
- Implementing continuous improvement processes.
- Developing a personal action plan for improving problem-solving skills.
- The future of problem solving and critical thinking in a rapidly changing world.