

Problem Solving and Capabilities

- A. Problem Solving Process
- B. Building Your Strength
- C. Barriers & Biases in Solving Problem
- D. Analytical Skill
- E. Design Thinking

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A. Problem Solving Process

The Eight Fundamentals of Problem Solving

<https://magazine.wharton.upenn.edu/digital/the-eight-fundamentals-of-problem-solving/>

1. Define the Real Problem
2. Solve the Root Cause
3. Use a Hypothesis
4. Get the Facts
5. Keep the solution simple
6. Do not reinvent the wheel
7. Gain momentum in problem solving
8. Consider time

Six Steps to Problem Solve

<https://www.youtube.com/watch?v=Bt7i0UyLjmg>

1. Define Problem
2. Analyze Problem
3. Identify All Possible Solution
4. Select the Best One (Keeping time , cost, strength in mind)
5. Plan Action (Steps to be taken in solving problem or in implementing solution)]
6. Evaluate Solution

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B. Building Your Strength

6 Ways to Enhance Your Problem Solving Skills Effectively

<https://www.lifehack.org/articles/productivity/6-ways-to-enhance-your-problem-solving-skills.html>

1. Focus on the Solution, Not the Problem
2. Adapt 5 Whys to Clearly Define the Problem
3. Simplify Things
4. List out as Many Solutions as Possible
5. Think Laterally
6. Use Language That Creates Possibility (phrases like 'what if...' and 'imagine if...')

Problem Solving Styles

https://creducation.net/resources/problem_solving_skills/problem_solving_style.html

1. Idealist
2. Activist
3. Realist

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C. Barriers & Biases in Solving Problem

Barriers to Common Problem Solving

<http://www.free-management-ebooks.com/news/barriers-to-problem-solving/>

Key Barriers are:

- Confirmation bias
- Mental set
- Functional fixedness
- Unnecessary constraints
- Irrelevant information

Problem Solving Strategy And Obstacles

<https://www.verywellmind.com/problem-solving-2795008>

Obstacle in Problem Solving : Video

<https://www.youtube.com/watch?v=PGvylZFKtOM>

Problem Solving Mind Traps:

<https://www.youtube.com/watch?v=gOZYrkNDqbE>

Common Bias That Impede Problem Solving

<https://42courses.medium.com/3-common-biases-that-impede-problem-solving-7a98599395a>

- 1) Confirmation bias
- 2) Recency Bias
- 3) Framing Bias

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D. Analytical Skill

Analytical skills or analytical thinking is an ability to collect, visualize and analyze information to see the bigger picture or trend behind facts and help in finding solutions to common problems and make decisions in helping what to perform next

3 ways to master in Analytical skill

https://g21.tcsion.com/LX/home/home_page?c_id=wings-business-skills-complex-problem-solving-capa-556-857&app_id=9519&org_id=857

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E. Design Thinking

The five stages of design thinking, according to the d.school, are:

1. Empathize: research your users' needs.
2. Define: state your users' needs and problems.
3. Ideate: challenge assumptions and create ideas.
4. Prototype: start to create solutions.
5. Test: try your solutions out.

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