

THE PROBLEM SOLVING PROCESS

1. Identify the Problem

Current State
Desired State
Who
What
When
Where
Why
Symptoms & Obstacles
Draft Problem Statement

2. Gather Information

No substitute for first hand info
Research
List the facts
List the assumptions
Consider Opinions

3. Develop Criteria

Screening Criteria
 Suitable
 Feasible
 Acceptable
 Distinguishable
 Complete
Evaluation Criteria
 Any constraints given to you
 Budget
 Resources
 Time schedule
 Any other valid rules (legal, ethical, etc.)

4. Generate Possible Solutions

All options are neutral
Do not become emotionally invested
Conduct the brainstorming session
 State the Problem
 Appoint a Recorder
 Do not evaluate any options
 Quantity over quality – get the most options
 Combine and build on others options
 Think outside the box
Throw out obvious failures
Pass results to next step

5. Analyze Possible Solutions

Screening Criteria
Evaluation Criteria
Rate the solutions independently

6. Compare Possible Solutions

Prepare a Decision Matrix
Rank the solutions compared to each other
Select a winner

7. Make a Decision

Justify your solution
Prepare the solution summary
Prepare the project assignment instructions
 Current State
 Desired State
 Summary of the problem
 Summary of the solution
 Evaluation Criteria/Constraints/Tasks
 Feedback Instructions
 Additional Instructions
 Reporting Instructions

PROBLEM SOLVING WORKSHEET STEP 1

IDENTIFY THE PROBLEM

CURRENT STATE

DESIRED STATE

Who is affected: _____

What is affected: _____

When did the problem occur: _____

Where is the problem: _____

Why did the problem occur: _____

SYMPTOMS OBSERVED (including obstacles):

DRAFT PROBLEM STATEMENT

EVALUATION CRITERIA

Example:

Title: Deadline	Title: Cost
Definition: Latest Date to Solve Problem	Definition: Maximum price of solution
Units: Days	Units: Dollars
Benchmark: 30 days	Benchmark: \$10,000
Formula: < 30 days to solve	Formula: <\$10,000 total cost

Title:	Title:
Definition:	Definition:
Units:	Units:
Benchmark:	Benchmark:
Formula:	Formula:
Title:	Title:
Definition:	Definition:
Units:	Units:
Benchmark:	Benchmark:
Formula:	Formula:
Title:	Title:
Definition:	Definition:
Units:	Units:
Benchmark:	Benchmark:
Formula:	Formula:

BRAINSTORMING SESSION LOG

OPTIONS GENERATED:

- 1. _____

- 2. _____

- 3. _____

- 4. _____

- 5. _____

- 6. _____

- 7. _____

- 8. _____

- 9. _____

- 10. _____

- 11. _____

DECISION MATRIX

RANK EACH SOLUTION FOR EACH CRITERIA – SELECT THE HIGHEST RANKED SOLUTION

EVALUATION CRITERIA	SOLUTION 1	SOLUTION 2	SOLUTION 3	SOLUTION 4	SOLUTION 5	SOLUTION 6	SOLUTION 7

SOLUTION TITLES:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

PROJECT ASSIGNMENT: IMPLEMENT DECISION

1. Current state:

2. Desired state:

3. Summary of problem:

4. Summary of solution:

5. Evaluation Criteria/Constraints/Initial Task List

6. Feedback instructions:

7. Additional implementation instructions to include Logistics:

8. This Project will report progress and situation to: _____

Reporting will be conducted according to this schedule: