Problem Solving

Introductions

- Your name
- Your job
- Your expectations for today

Workshop Outcomes:

- An understanding of the need to deal with problems as they occur
- Know how to use systematic and effective problem solving techniques
- Principles of problem solving
- Techniques for defining the problem
- Identifying the problem
- Generating the solutions
- Implementing your solution

Problem Categories

Strategic problems

are longer term, wide ranging problems that have significant consequences for the organisation as a whole.

Operational problems

are usually medium to short term and involve the management of resources to achieve particular objectives.

Administrative problems

are usually short term or have a right or wrong answer according to the policies and procedures of the organisation.

Convergent / Divergent Problem Solving Styles

- Using the 'divergent' followed by 'convergent' thinking process can help avoid jumping too quickly to conclusions as to the best way to solve the problem

- Divergent is 'blue sky thinking' – opening up to imaginative options

- Convergent means narrowing down or meeting

- Unless the problem is a simple administrative or operational one that requires a yes or no answer then it is likely that you will want to spend some time 'diverging' before you 'converge' and decide what you are going to do.

Develop your convergent or analytical skills:

- **Develop your ability to gauge time requirements**
- **Learn more about finance**
- **Keep a log of the problems you solve each day and the method**
- **Read a biography of an outstanding scientist**
- **Clean off your desk and organise your files**

Developing your divergent or imaginative skills:

- Engage in 'what if' thinking
- Take an art class or a music class
- Imagine the possibilities surrounding a given object
- Associate with creative people

Six steps to effective problem solving

1. identify the problem
2. specify the cause, the reasons and the effects
3. identify possible solutions
4. evaluate and select the most promising solutions
5. plan the action, and
6. action the plan

Pareto Analysis

Pareto Analysis is a simple technique that helps you to identify the most important problem to solve.

1. List the problems you face, or the options you have available
2. Group options where they are facets of the same larger problem
3. Apply an appropriate score to each group
4. Work on the group with the highest score

Is / Is Not Matrix

	Is Where, when, to what extent or to whom does it occur	**Is Not** Where, when etc does it not occur when it could	**Therefore** What might explain the pattern
Where The location where it is noticed			
When The day, hour, month or event The relation to other events			
What kind or how much The type or category, the degree, size			
Who Groups or individuals present or near to the event			

Brain Storm – Stage 1

Set the problem / issue

Determine and specify the problem which needs a solution. Every participant must know the problem.

Generate ideas

Generate as many ideas as possible. Timed

Our task – uses for a paper cup

Time – 3 minutes

Go

Brain Storm – Stage 2

Revisit list

Mark each item as:

- YES – Definitely to be considered
- NO – Definitely not an option
- W – Weird but might be worth looking at further

Brain Storm – Stage 3

Look at the Yes list

.....pick the preferred option (s)

Action Planning

What (action)	Who (responsible)	When (deadline)	Monitor (milestones)	Resources needed