CHAPTER 2

Getting Started

- Effective problem solvers
- Ineffective problem solver

What matters is the

- Attitude
- Aggressiveness in problem solving
- Concern for accuracy

Characteristics of Effective/Ineffective Problem Solvers[1,2]

Characteristic	Effective	Ineffective
Attitude:	Believe the problem can be solved.	Give up easily.
Actions:	Reread the problem several times.	Lie back and hope a solution will occur.
	Redescribe the problem.	Unable to redescribe the problem.
	Ask themselves questions.	
	Create a mental picture.	
	Draw sketches, write equations.	
	Don't jump to conclusions.	Jump to conclusions.
Accuracy:	Check and recheck.	Do not check.
Solution Procedures:	Break the problem into subproblems.	Don't break the problem apart.
	Start at a point they first understand.	Don't know where to start.
	Use a few key fundamental concepts as building blocks.	Fail to identify key concepts.
	Use heuristics.	Guess.
	Persevere when stuck.	Quit.
	Use quantitative formulas, descriptions.	Do not do so.
	Keep track of progress.	Use no special format.

7 Habits of Highly Effective People..

1   **Be Proactive**
   • Take intiatives before expected problem occur
   • Don't let negative environment prvail
   • Acknowledge mistakes and learn from it
2. **Begin with the end in mind**
   • Where you want to go

7 Habits of Highly Effective People..

3. Put First Things First

- Make list of proierties
- Say NO to unimportants tasks

4. Think Win/Win

It is the frame of mind that seeks benifits for all

5. Seek first to understand and then to be understood

- listen listen listen
- Present things logically not emotionally

7 Habits of Highly Effective People

6. Synergize
- Make the whole greater than sum of its parts
- Value the differences in the people

7. Renewal
- Physical
- Mental
- Spirtual
- Social/Emotional

Taking Risks

A company which is in bussines of fresh vegetables
"The Jolly Green Giant"
President Proposed green color for giant

Activities that make you comfortable with risk taking

- Asking question in large lecture/Gathering
- Try a new sport
- Join a thespian group
- Become the activity oraganizer
- Take challenge course outside area of experties
- Change the established patterns
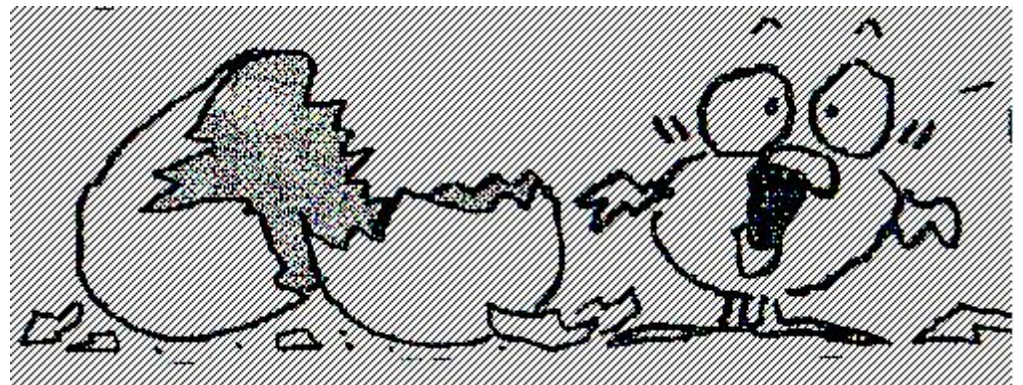
Looking for Paradigm Shifts

Paradigm Shift
Change in old model of thinking/ doing
Paradigm Paralysis
Inability to think out of the box
Paradimg Pioneers
Who put thier effort to bring positive change in the world

Paradigm Shift (A Case Study)

Swiss

★80% of market share (1968)

★less than 10% (Now)

★employees 650,00 (1968)

★Employees 150,00 (now)

★*Digital watches captured the market and spring watches sale declined speedily*
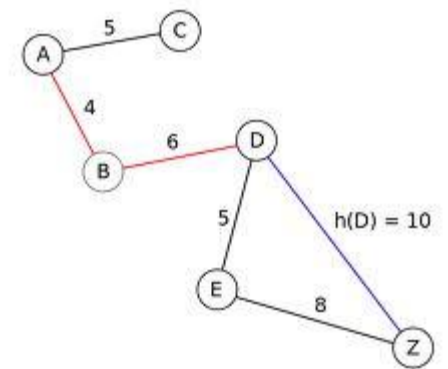
Having a vision

- To see things differently than what they are now

Using a Heuristic

- A set of procedures to do the task

Building Blocks of Heuristic

- Defining the real problem

- Generation of alternative solution (Brainstorming)

- Decide and choose the best alternative

- Implementation of solution

- Feed back

Fostering Creativity

Apple computers are considered one of the most creative companies

Former CEO of Apple suggested ideas for Creativity

- Don't give people goals give them directions
- Encourage Contrarian thinking
- Extend not only people's aspirations (ambition) but also sensebilities
- Build emotion into the system
- Make environment safer
- Encourage accountibility over responsibilty
- Prepare ordinary people to do extra ordinary things

Interacting Creatively

- Treat every one in the organization as ***Customer***
- listen the customer again and again
- Involve customer in problem-solving

Scholtes Principles
- Customer focus
- Continued education and training
- Obsession with quality
- Unity of purpose

Listening the customers (A Report)

General Motors
- Two keys
- One for doors second for ignition
- Key inserts in one direction

Toyota motors
- One key for doors and ignition
- Key can be inserted either side