What is Problem Solving?

• normally associate problem solving with overcoming a difficulty or avoiding some sort of pain

• focus attention on the word “problem”....we tend to perceive it as a bad thing or something to be removed
<table>
<thead>
<tr>
<th>Actively constructing many and various opportunities and identifying the more promising ones to explore and examine more fully. Being open to many different possibilities and maintaining a positive attitude. Solving future-focused problems that do not even exist today.</th>
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<tr>
<td>Examining facts, impressions, feelings, and opinions from many different points of view. Being willing to dig deeper under assumptions.</td>
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<tr>
<td>Seeing the problem or challenge from many different viewpoints. Being able to play with possibilities.</td>
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<td>Generating many, varied, and unusual ideas that have high potential to address the problem or meet the challenge in a fresh and valuable way. Being able to think up and suspend judgment when needed. Having idea power.</td>
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<td>Investing energy and talent in taking a wild or highly unusual idea and shaping, refining, and developing the idea into a workable solution. Being persistent.</td>
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<td>Considering aspects of the situation surrounding the solution to enable agreement of your solutions by others. Being sensitive to the context and the people who may be involved with your solution and working to obtain support and acceptance.</td>
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<td>Having a variety of possible approaches to take for any given situation, challenge, or problem. Being aware of the power of process.</td>
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<td>Reflecting on many different factors in determining your approach.</td>
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Conventional way to solve problem

- Solve problems using schema known as scripts

- For new situations or problems, we tend to recall previous ways in which we have dealt with similar problems: *follow a script*
The index metaphor supposes that we store all our information, knowledge and experience in a huge ‘mental book’ which has an index and cross-referencing facilities.

Building on the concept of schemas, scripts and themes we can develop a metaphor to show how ideas may be generated and the role that creative problem solving aids can play in helping the ideas to emerge.

How we deal with a problem is influenced by our perception of it.

We take our perceived problem, identify the main theme/concept/principle and look it up in the index of the ‘mental book’.

The index provides us with a number of references to entries regarding the information we have related to the subject of the problem (schema or script).
Problem-Finding

• The development of a problem statement for the real problem.

• Encompasses:
  • Conditions
  • Symptoms
  • Causes
  • Triggering events
Problem-Finding

Types of errors:

• Type I: Solving a problem that doesn’t exist.

• Type II: Failing to recognize that a problem exists and therefore not solving it.

• Type III: Solving the wrong problem.