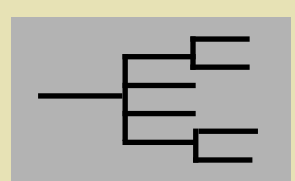

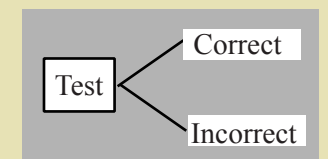
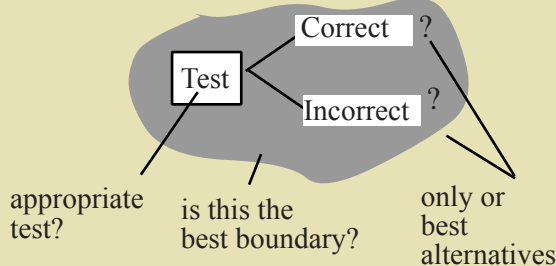
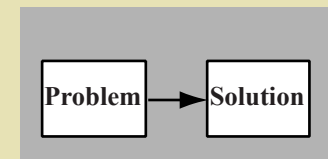

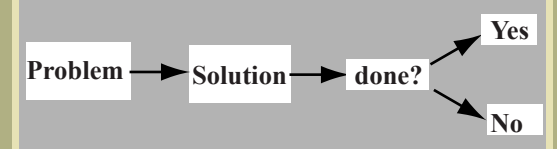
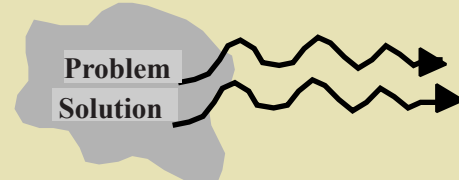
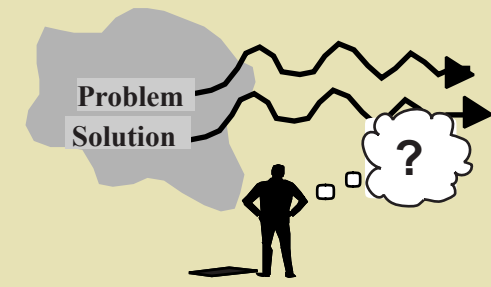
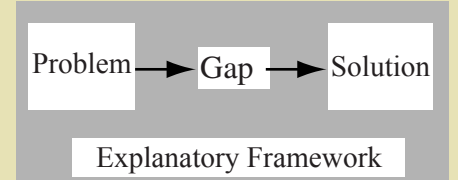
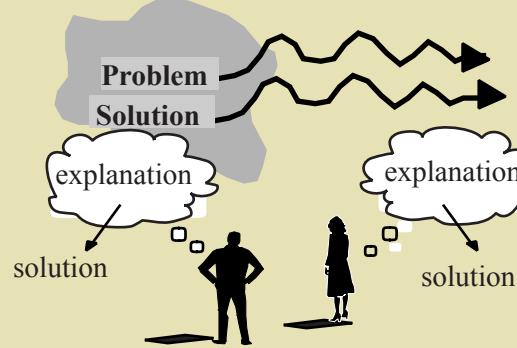


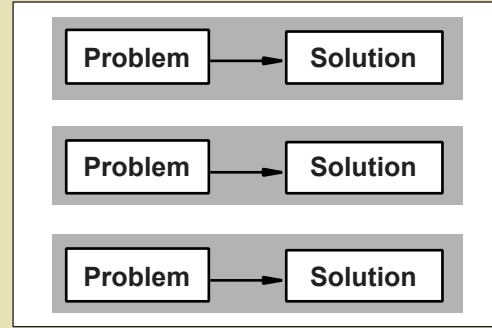
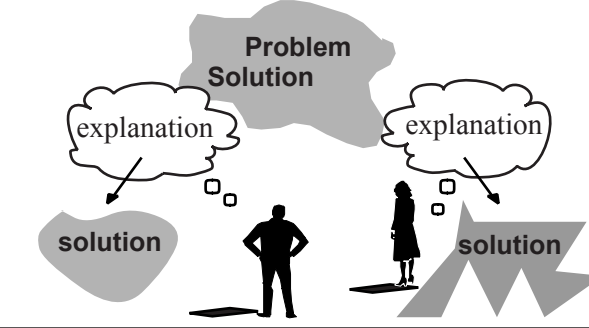
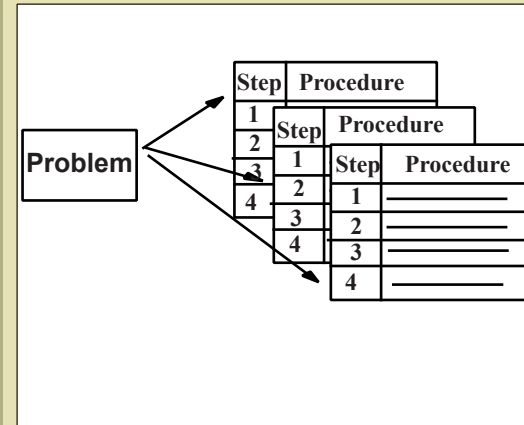
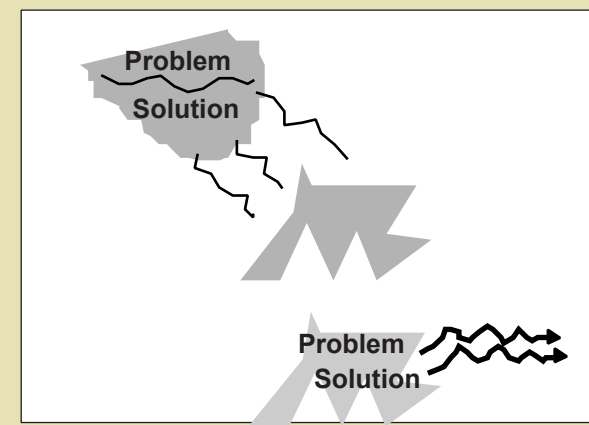
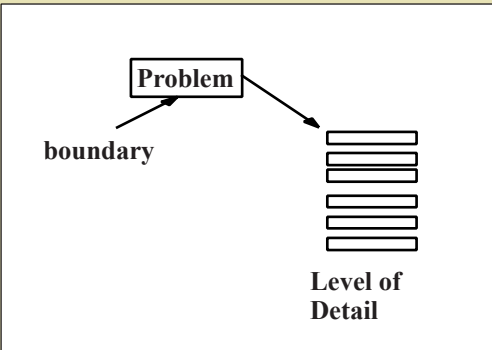
## Comparing Ill-Structured and "Tame" Problems

Characteristics	Tame Problems	Ill-Structured Problems
<b>Ability to formulate the problem</b>	Can be formulated exhaustively and written down definitively. 	No definitive formulation 
<b>Ability to devise and conduct definitive tests</b>	Can be tested. Mistakes and errors can be identified. 	No single criterion to determine correctness. Difficult to determine when a solution is a solution or even whether a test is applicable. 
<b>Relationship between problem and solution</b>	Problems can be formulated separately from solutions. 	Solving the problem is synonymous with understanding it in the first place.  Each formulation of an ill-structured problem contains a definition of the solution.

## Comparing Ill-Structured and "Tame" Problems

Characteristics	Tame Problems	Ill-Structured Problems										
<b>Ability to determine whether problem has been solved</b>	Have a clear ending point and a determinable solution.  A clear rule or test can be stated to determine completion.	No stopping criteria...the problem may be ongoing and continuously changing, so there is no way of determining completion. 										
<b>Tractability</b>	Exhaustive list of operations used to solve problem exists. <table border="1"> <thead> <tr> <th>Step</th> <th>Procedure</th> </tr> </thead> <tbody> <tr><td>1</td><td>_____</td></tr> <tr><td>2</td><td>_____</td></tr> <tr><td>3</td><td>_____</td></tr> <tr><td>4</td><td>_____</td></tr> </tbody> </table>	Step	Procedure	1	_____	2	_____	3	_____	4	_____	No list of operations exists for solving ill-structured problems. 
Step	Procedure											
1	_____											
2	_____											
3	_____											
4	_____											
<b>Relationship between explanation and solution</b>	Can be stated as a discrepancy between what is and what could or ought to be, and an explanation exists for every gap. 	Many possible explanations and each one "contains" or "implies" a different solution.  More on this table on the next page										

## Comparing Ill-Structured and "Tame" Problems

Characteristics	Tame Problems	Ill-Structured Problems
<b>Uniqueness or reproducibility of problem</b>	Problems can be abstracted from the real world and similar solutions can be found. 	Each problem and each solution is unique. 
<b>Repeatability of solutions</b>	Attempts to solve can be made repeatedly until one works. 	You cannot undo what you have tried, so that each solution is unique and changes the nature of the problem. 
<b>Level of analysis</b>	Identifiable, "natural" form with high degree of certainty...level of detail for solving the problem can be found...and boundaries for the problem are reasonably easy to agree upon. 	No identifiable causes...every "symptom" is a problem and vice versa...level of detail and approach are not easy to define...little agreement on setting boundaries of the problem. 