

Examples of simple, complicated and complex problems.

SIMPLE: Following a recipe	COMPLICATED: Sending a rocket to the moon	COMPLEX: Raising a child
The recipe is essential.	Formulae are critical and necessary.	Formulae have a limited application.
Recipes are tested to assure easy replication.	Sending one rocket increases assurance that the next will be OK.	Raising one child provides experience but no assurance of success with the next.
No particular expertise is required, although cooking expertise increases success rate.	High levels of expertise in a variety of fields are necessary for success.	Expertise can contribute but is neither necessary nor sufficient to assure success.
Recipes produce standardized products.	Rockets in are similar in many ways.	Every child is unique and must be understood as an individual
The best recipes give good results every time.	There is a high degree of certainty of outcome.	Uncertainty of the outcome remains high throughout the process.
The recipe provides the quantity and nature of the "parts" needed.	The process can be broken down into independent parts which are then assembled.	The parts cannot be separated from the whole; essence exists in the relationship among the components.
The food follows predictably from actions of the chef.	Many action -> effect relations are predictable, occasional surprises trigger re-analysis	Child-parent system is co-created by actions and reactions of both.

From Westley, F., S. Carpenter, W. Brock, C. Folke, L. Gunderson and M. Scheffer, 2005, "New solutions for new classes of environmental problems", typescript, Beijer Institute of Ecological Economics, Stockholm, Sweden.

Based on Westley, F., B. Zimmerman and M. Patterson, 2005, *Getting to Maybe*, Random House, Toronto, Canada.