

CIHAN UNIVERSITY/SULIMANIA, ARCHITECTURAL DEPT.

THIRD YEAR 2023-2024

FIRST SEMESTER LECTURE 3

# Logic and Design Methodology

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# Process of organizing

- ▶ The aspect of forming bits of information into meaningful wholes is called perceptual organization



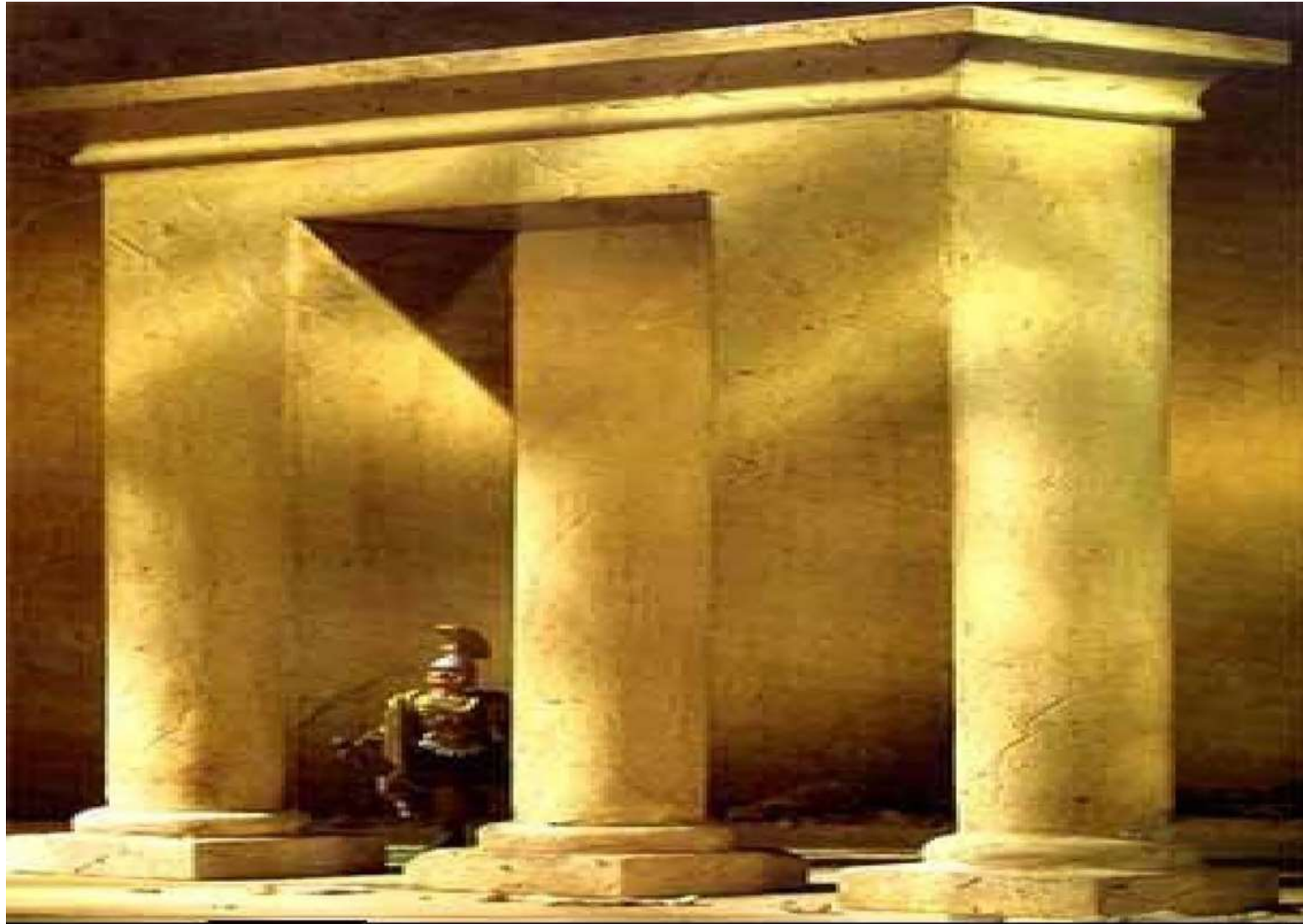
# Process of interpreting

- ▶ It is the process understanding and giving meaning to the organized stimuli.







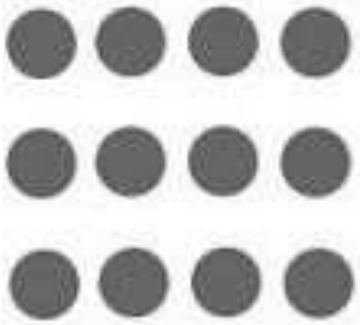


<http://www.indianchild.com>

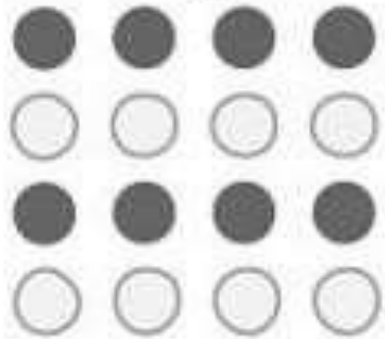
# Gestalt theory



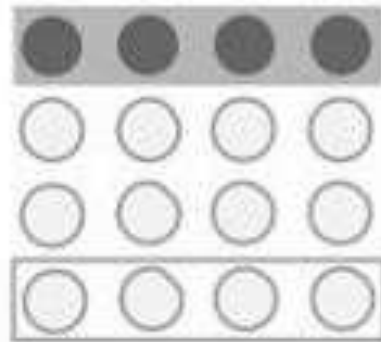
Proximity



Similarity



Enclosure



Symmetry



Closure



Continuity



Connection

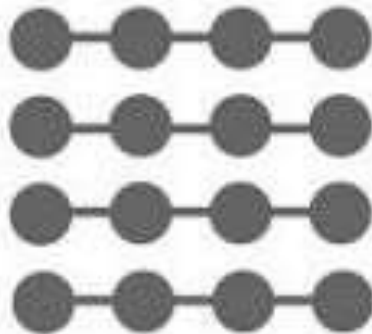


Figure & ground



# Cognition

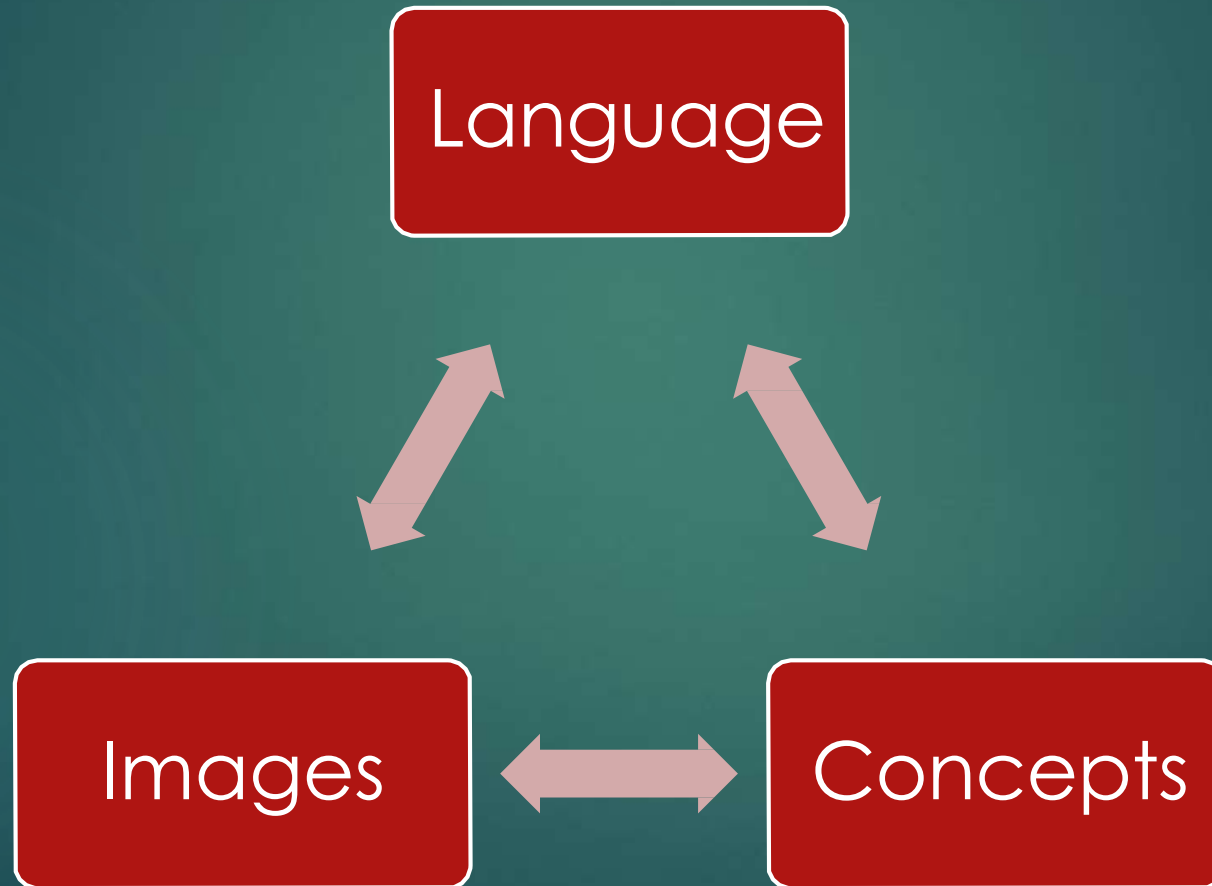
- ▶ Is the act of understanding the environment

Coding

Comparing

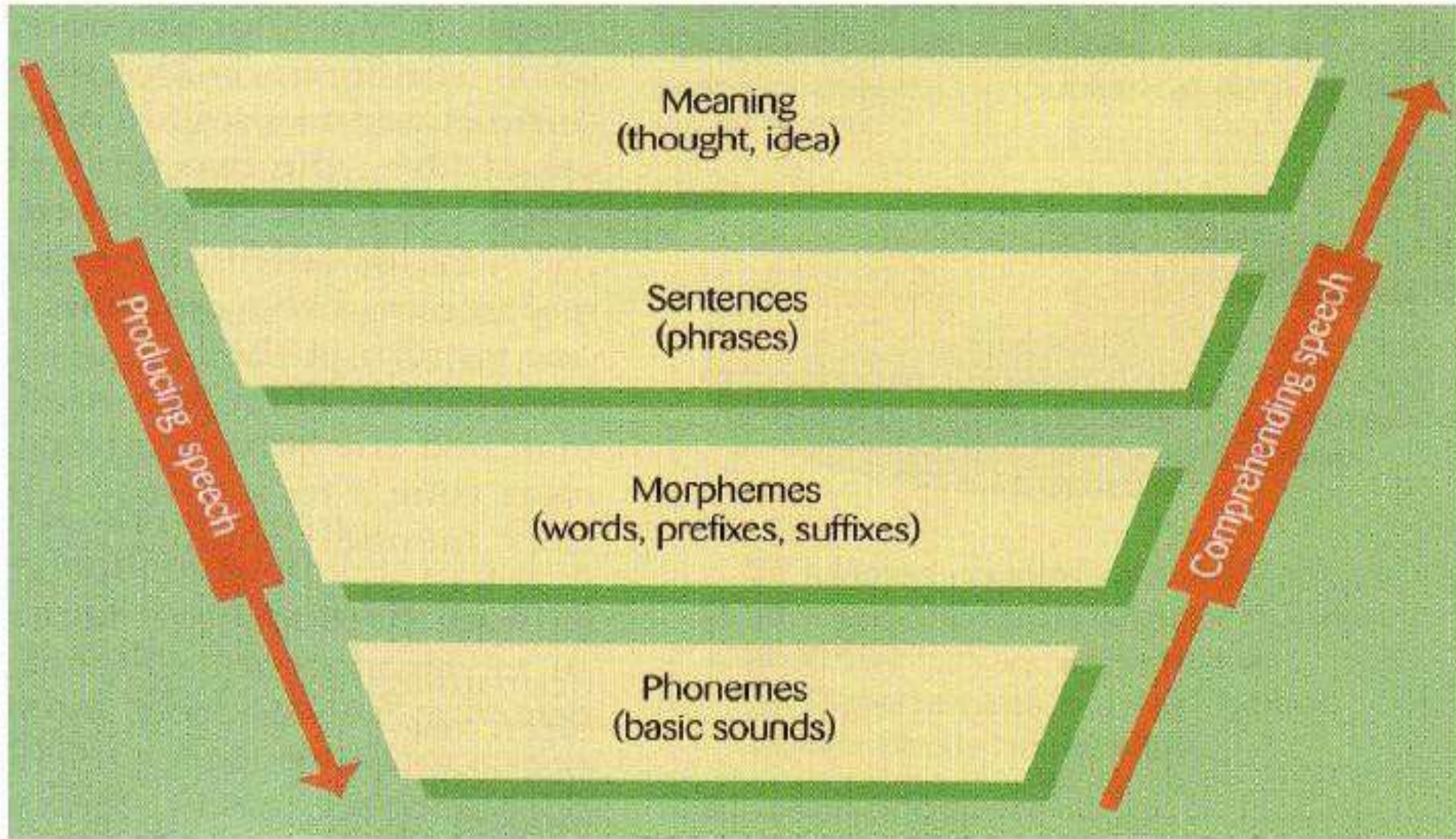
Decision  
making

# Elements of thinking

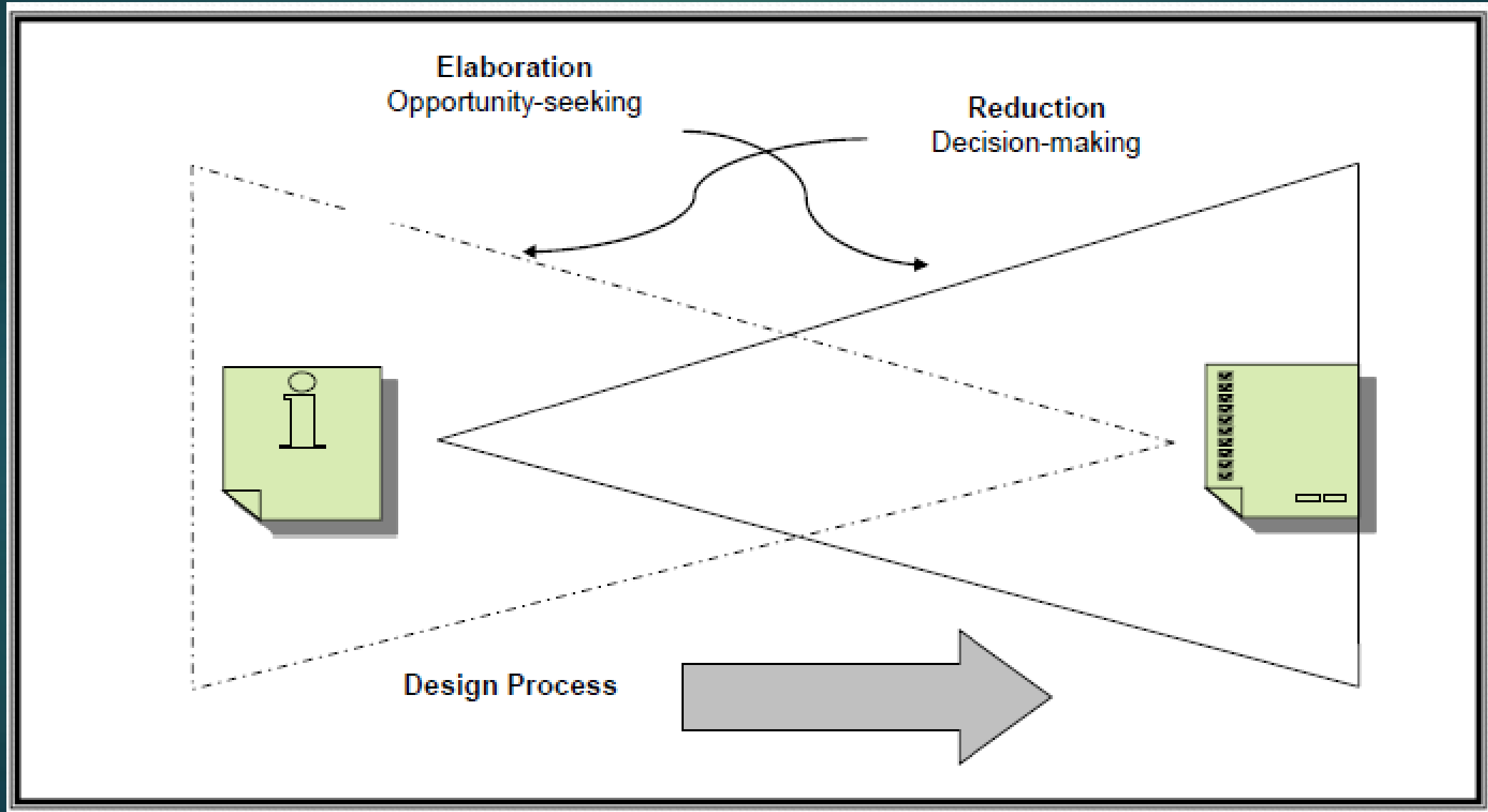




# Understanding vs Producing

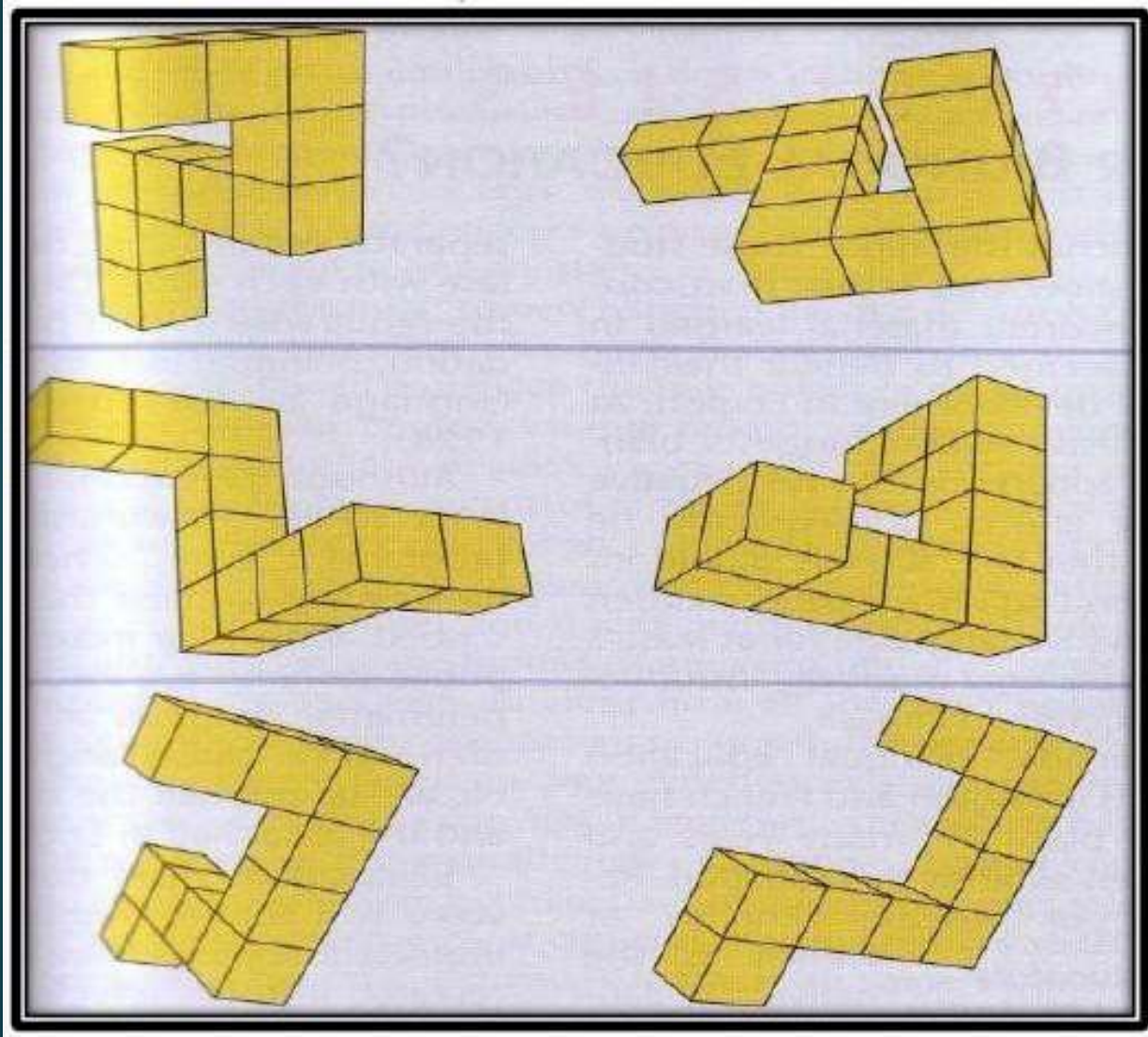


# Understanding vs producing





# Imaginary process of thinking



# Ways of thinking

- ▶ Trial and error
- ▶ Intuition
- ▶ Logical
- ▶ Heuristic

# Trial and error





# Intuition



YOU  
KNOW  
THE  
TRUTH,  
BY THE  
WAY IT  
FEELS.

# Logical (algorithmic)

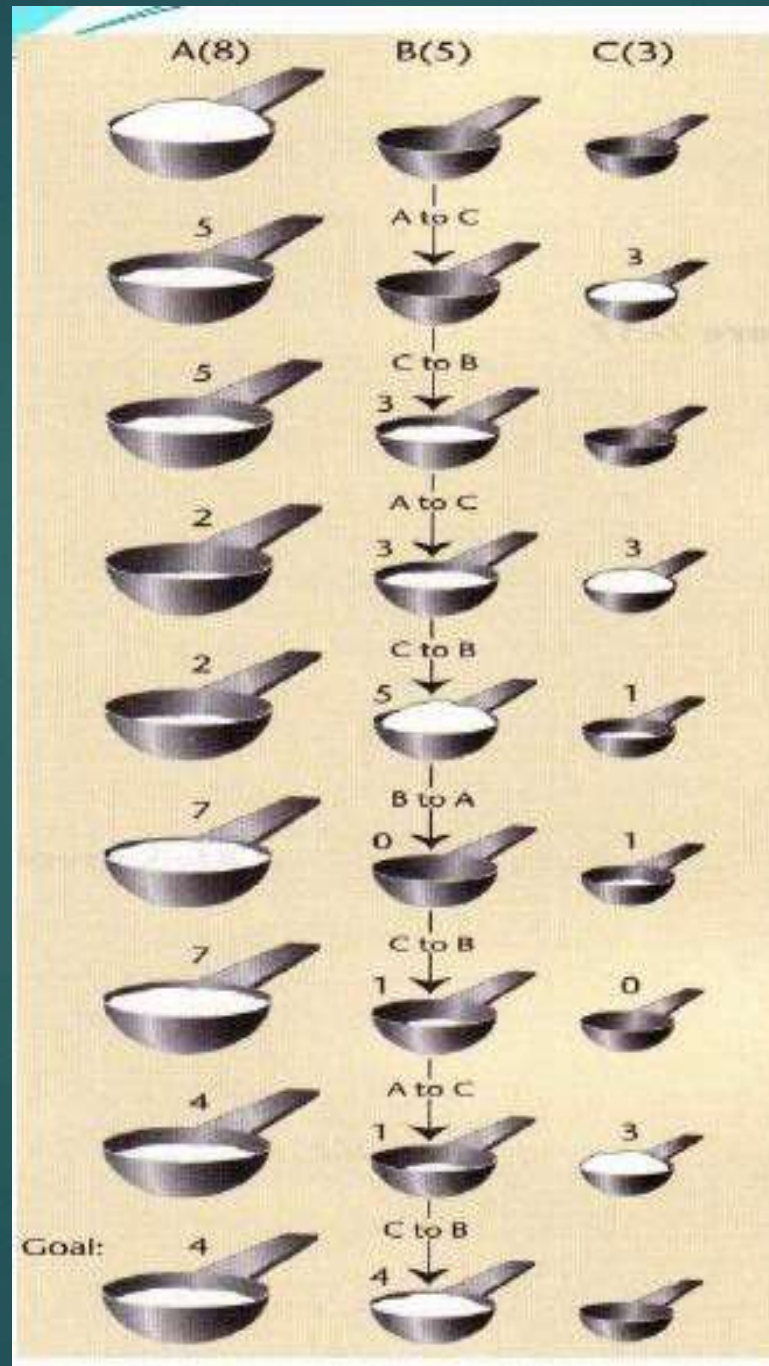


# Heuristic

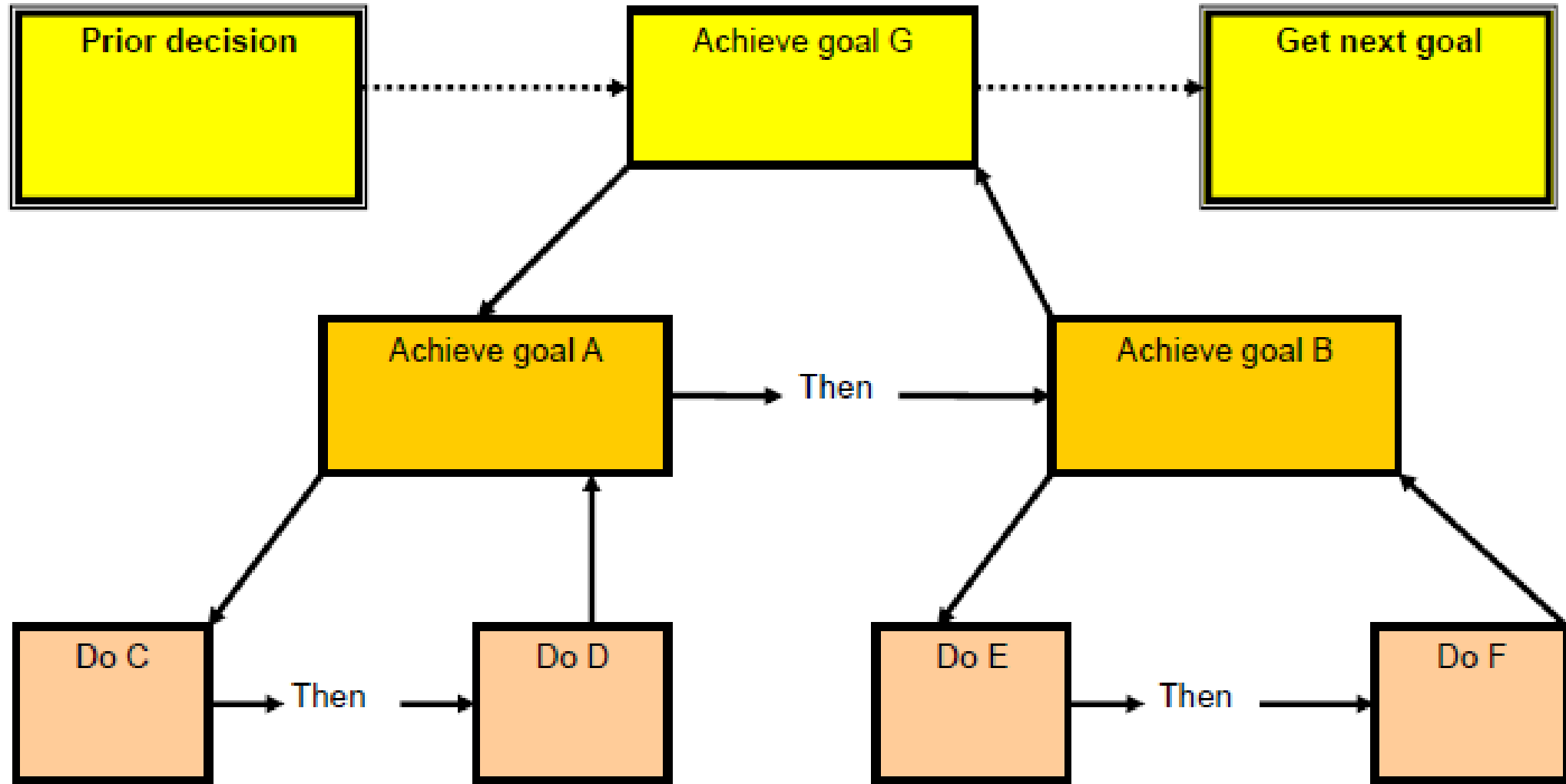
- ▶ That helps to simplify the problem, influenced by past experience. There are four heuristic methods are:
- ▶ **1. Hill Climbing** A heuristic strategy in which each step is concern to move closer to its final destination.
- ▶ **2. Sub goals** Method of solving a problem by making it smaller or in pieces, everywhere respective aims to simplify the solution
- ▶ **3. Mean and Analysis** A heuristic strategy that will target to reduce differences between the situation with the desired objectives through the intermediate of a way.
- ▶ **4. Working Backward** A heuristic strategy where we have to move backwards from our goal in some circumstances



# Hill climbing

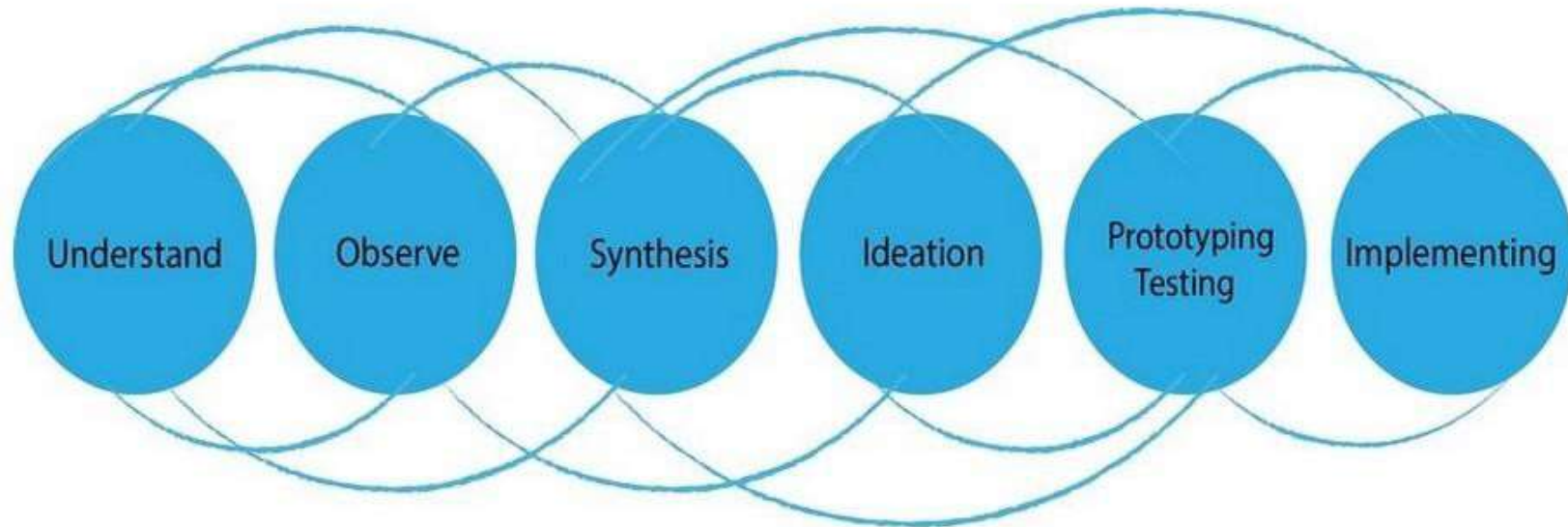


# Sub goals





# Mean and Analysis



# Working Backward



“There are three classes  
of people: those who see,  
those who see when  
they are shown, those  
who do not see.”  
- Leonardo da Vinci