Professional Skills – I

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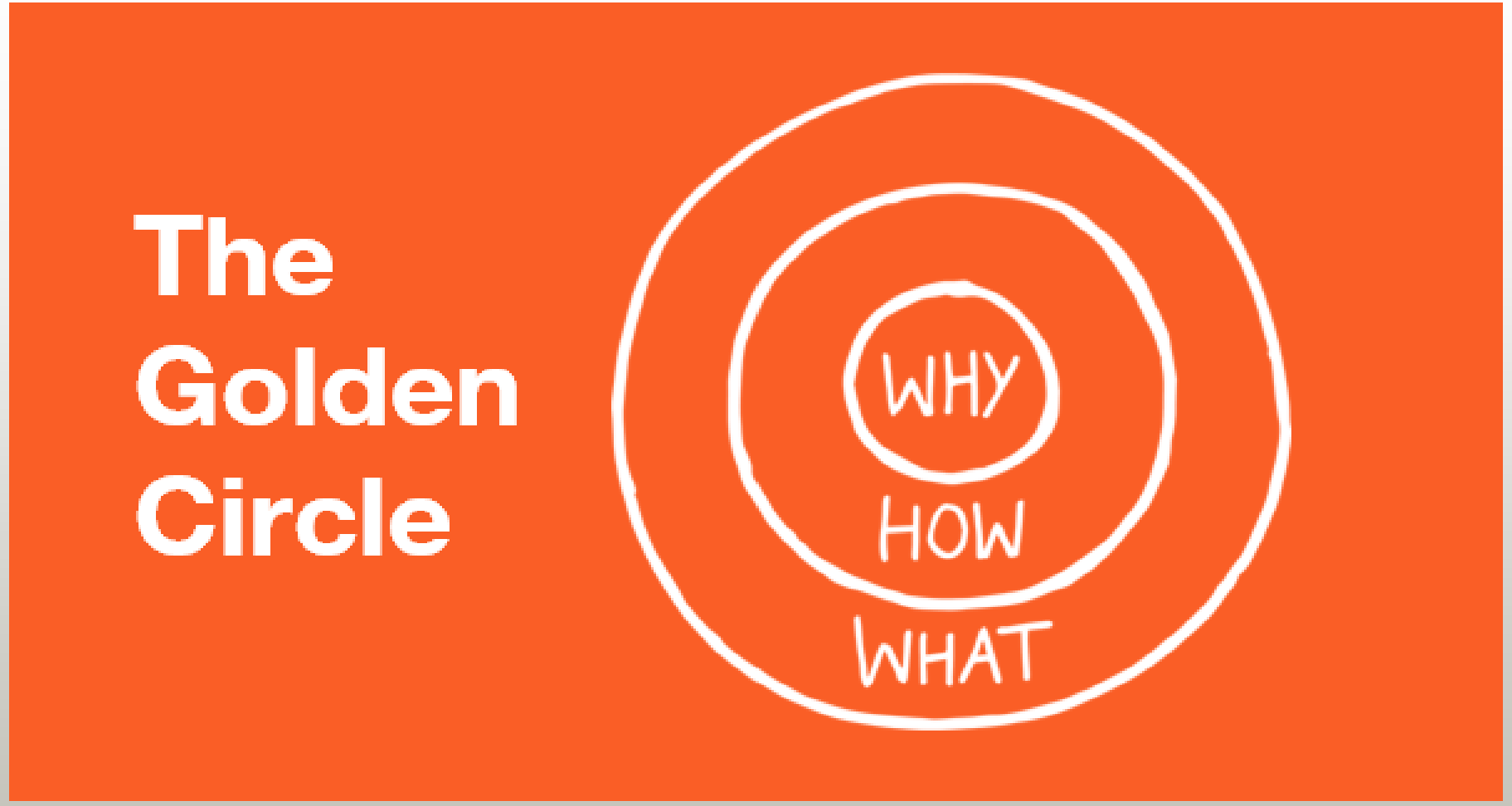
GN 5003: Personal And Professional Growth

Odd Sem ’21

Agenda

- Decision Making
  - Purpose
  - Biases
  - Choices
  - Differentiation
  - Implementation
- Problem Solving
  - Types
  - Methods
  - Tools

Purpose



Source: Simon Sinek, The Golden Circle

Purpose

Clarity of WHY

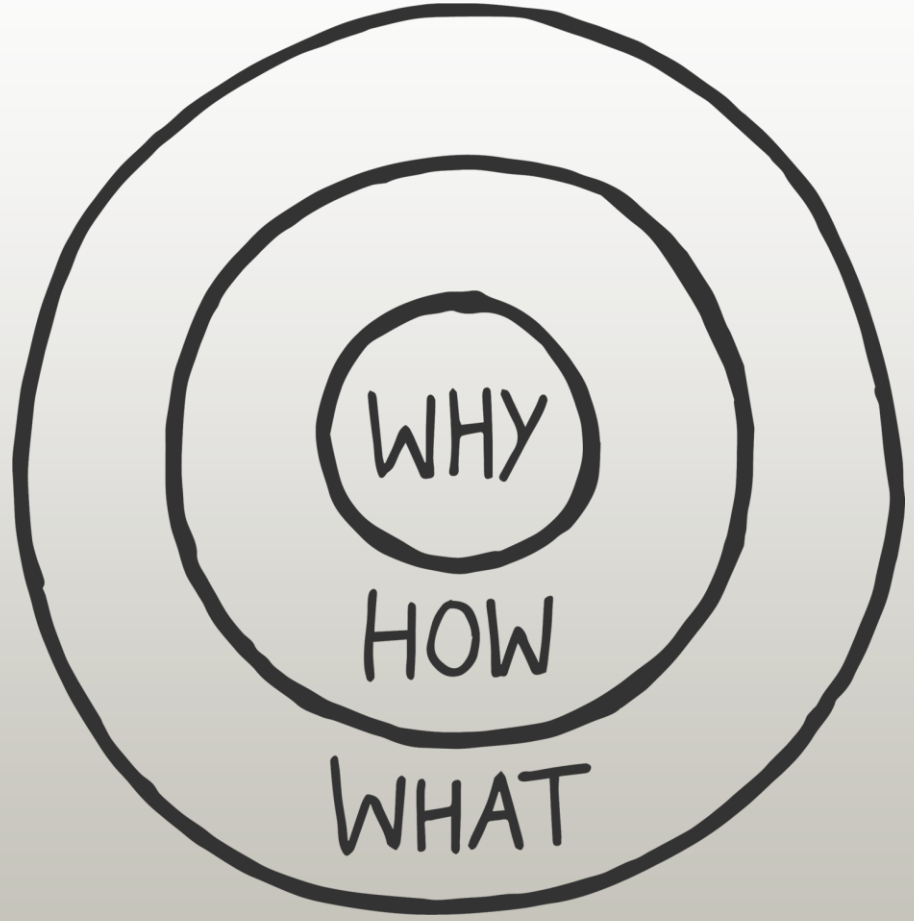
Your purpose, cause or belief.

Discipline of HOW

Your strengths, values or
guiding principles.

Consistency of WHAT

Products sold, services offered
or your role at work.



Purpose

2003

2004

2007

2020

Biases

- Understand Biases

Choices

- Decisions are obvious
  - Legally/Ethically/Morally
  - Financially
  - Socially (immediate family/tribe/nation/world)
- Frequently they are not obvious

Differentiation

- Analyze all scenarios, pros and cons
- Build financial models if possible
  - Two jobs, one private, one government
  - Model financial payoffs, discount future cash flow, use NPV
- Perform supporting experiments
  - Deciding between two different manufacturers of lab equipment
  - Test runs, validate product reliability and quality in situ
- Think through social/ethical/moral consequences
- Organizational Imperatives (too out of the box)

Intuition

- Sometimes, decisions, after all analysis is still not possible
- Frequently, intuition is used. Also called as gut feeling etc.
- It is ok to use intuition to differentiate between two choices that cannot be objectively differentiated.
- Always validate assumptions along the way and make pivots if unexpected outcomes are observed

Implementation

- Don’t waste time, come to conclusion quickly
- Once decided, don't look back at what-if
- But, collect data to validate path/decision
- Make quick pivots if outcomes are unexpected

Homework - 1

- One of the below, at least 2 pages, with a 1 paragraph (not more than 1/4 of a page) executive summary:
  - IIT-Madras is currently ranked as the #1 amongst Universities overall as well as for Engineering. However, it is not that highly ranked in international rankings. You are the director and have contracted a consulting firm (like McKinsey) to come up with an action plan that will take IIT-M to the top 50 in the world in 5 years. Their report has three choices, and all the options involves significant change for the institute as well as requires various amounts of external funding, both government and other. How would you go about deciding what option to choose and how will you mitigate the challenges in implementing it?
  - OR
  - It is placement season. You have done well in academics and in the placement tests. You have two good offers from a reputed companies in hand. You also have applied to study further abroad. An admission letter arrives by post informing you of a scholarship at a university which is well known in your field and is undertaking advanced research in the field of your current interest. How would you go about deciding what option to choose, how will you decide whether the choice that you made is the right one and what are the contingency plans that you will put in place should your first choice not work as expected?

Problem Solving

- Problems with no known solutions
  - Cause of the problem is unknown, e.g. Afghanistan
  - Cause is known, but is now irrelevant, but problem exists, e.g. Lifestyle diseases (heart, diabetes)
- Problems with multiple solutions, which is the best for you?
  - Outcomes are certain
    - Phone is dead, not repairable. New phone, multiple choices, each with advantages/disadvantages
  - Outcomes are uncertain
    - Use probability, simulation
    - Decision can be based on max, min, VAR, mean, median
      - Investing - gold, bonds, stocks, MFs etc.

Methods

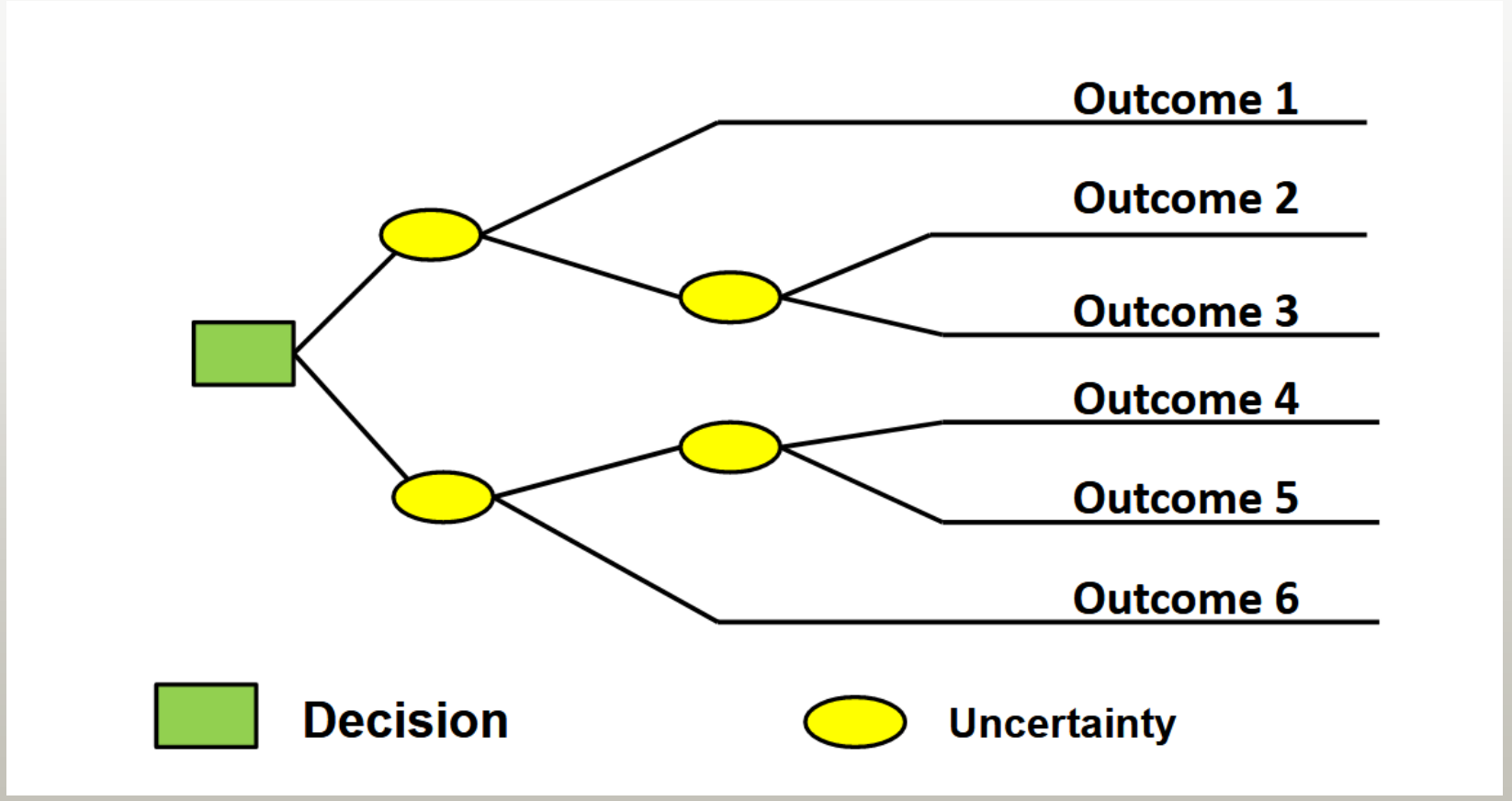
- Root Cause Analysis
  - Example: GoAir – flights from Chennai frequently depart late
  - Analyze time taken from arrival to departure
  - Compare with other airports, keeping most things the same (time of day, size of aircraft, number of passengers)
  - Identify lags or outperformance
  - Identify root cause, fix the issue or work around it

Methods

- Matrix Decision Analysis (Who does what)
  - Solution is known, but implementation is not clear
  - Create a champion for the solution, empower him/her with tools and staff
  - Create clear timeline, responsibilities
  - Monitor progress
  - Identify initial adoption team, get them trained, empower them
  - Send them as evangelists to implement in wider organization

Methods

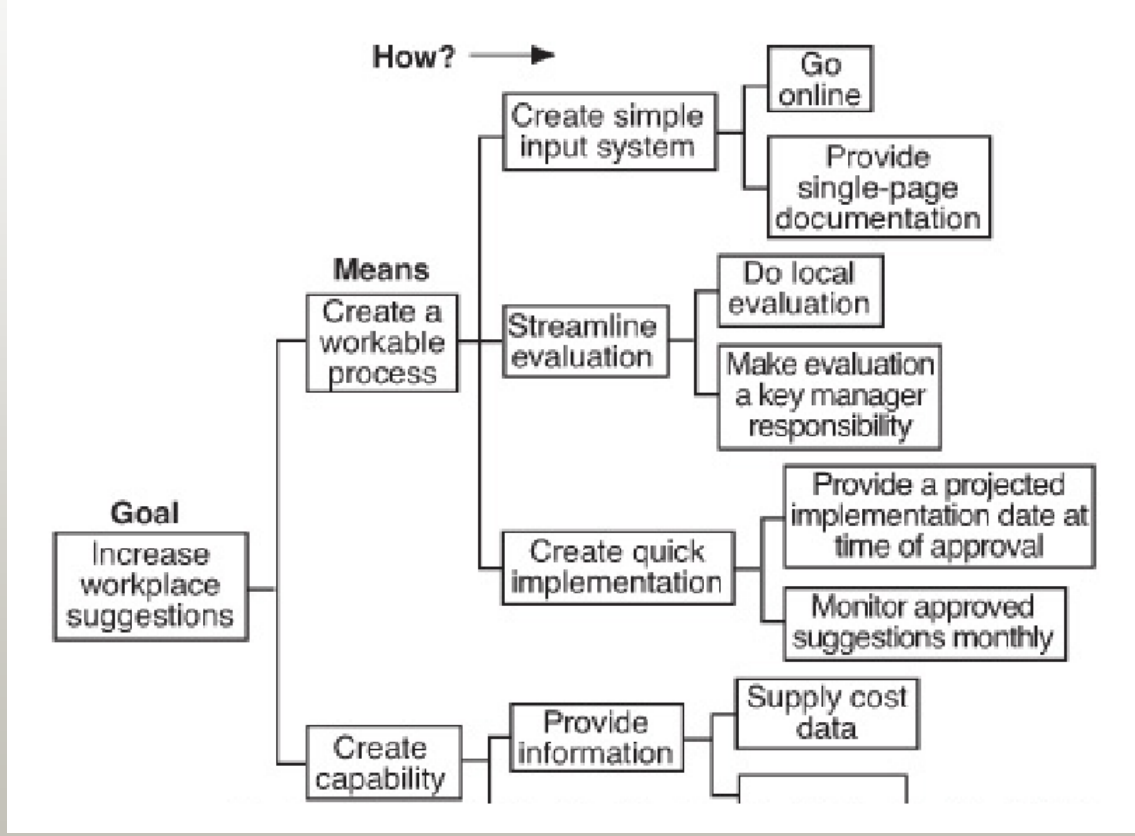
- Decision Tree (prioritization)



Source: Michael Brassard and Diane Ritter. The Memory Jogger 2. 2011

Methods

- Precedence Chart (Tree, but details on tasks)



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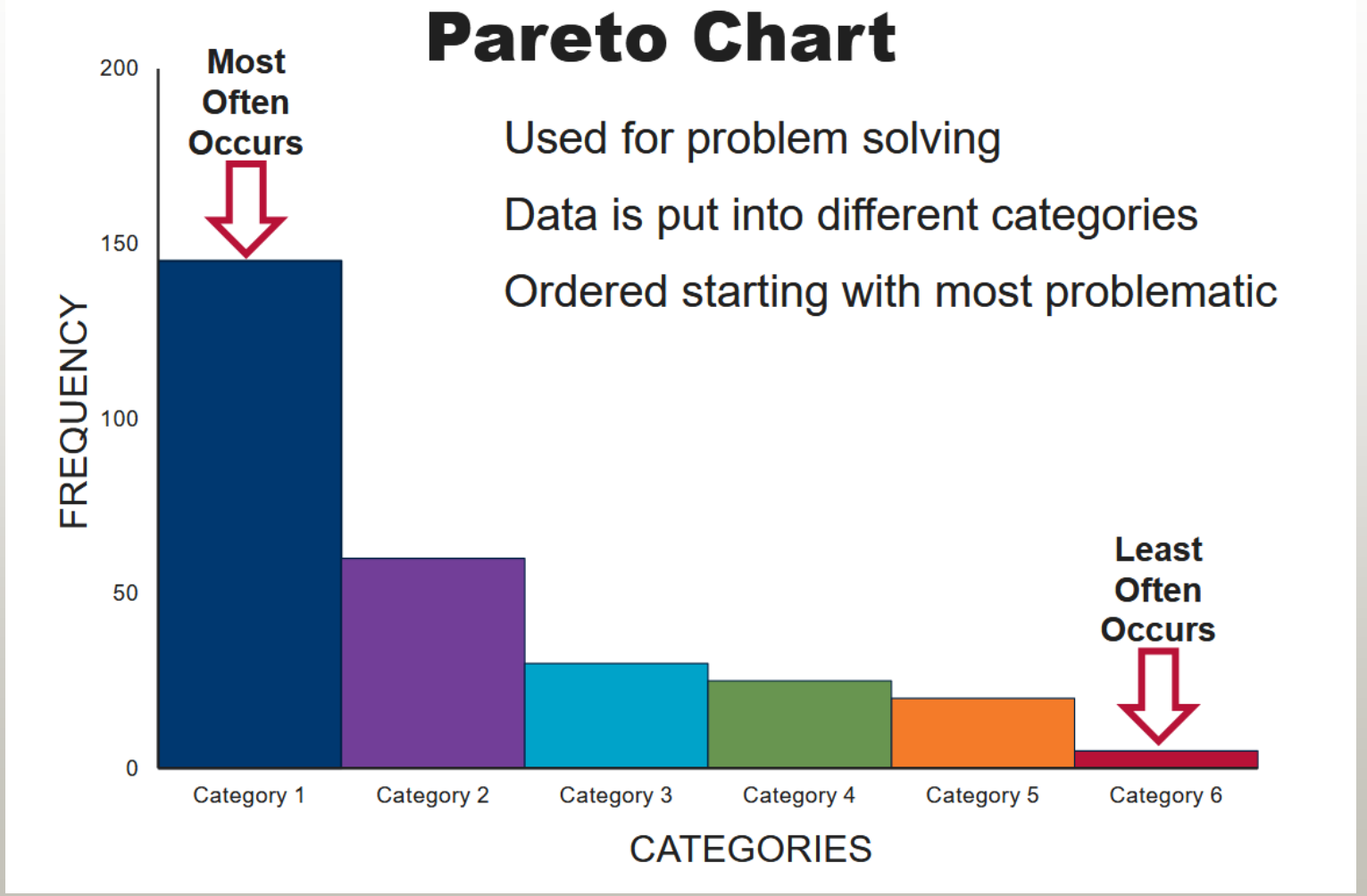
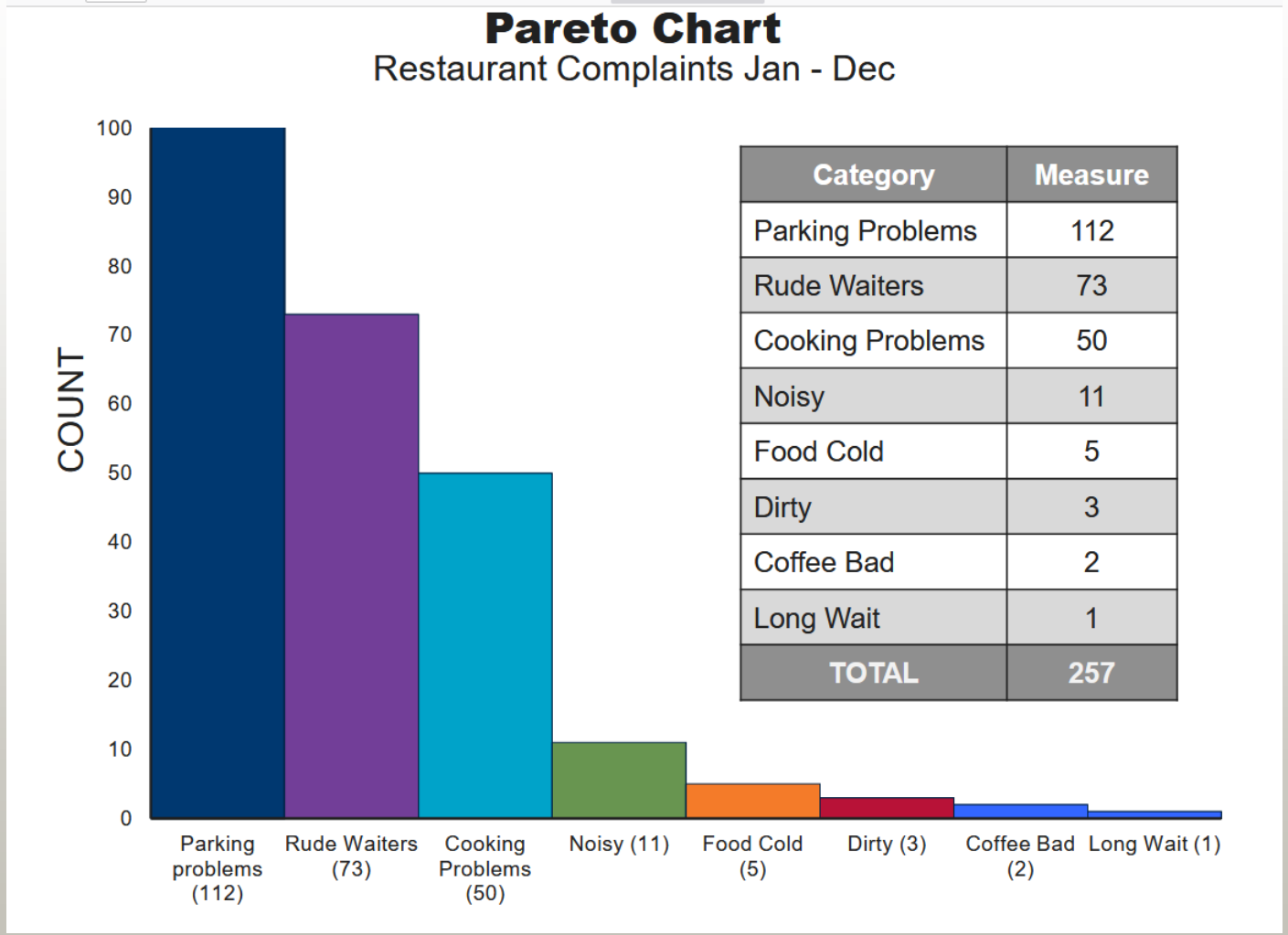
Tools



Source: Effective Problem Solving, Rob Stone

Tools

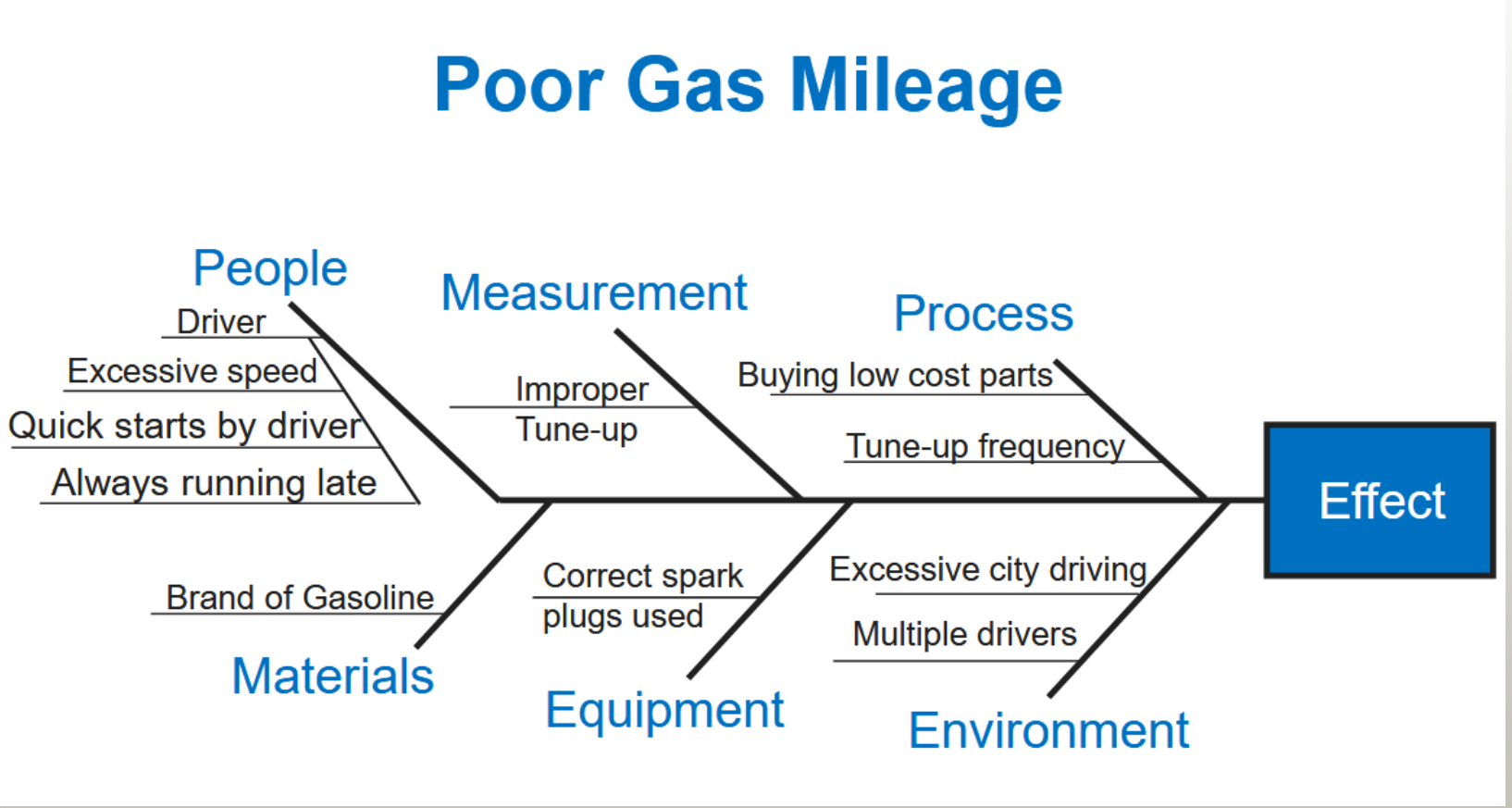


Category	Measure
Parking Problems	112
Rude Waiters	73
Cooking Problems	50
Noisy	11
Food Cold	5
Dirty	3
Coffee Bad	2
Long Wait	1
TOTAL	257

Source: Effective Problem Solving, Rob Stone

Tools

- Cause and Effect Diagram



Source: Effective Problem Solving, Rob Stone

Homework - 2

- One of the below, at least 2 pages, with a 1 paragraph (not more than 1/4 of a page) executive summary, group assignment, teams of 3, TAs will assign teams, due before next session (1 week):
  - The T20 World Cup is almost here. Your first match is against Pakistan. Prepare a team (of the announced 15 players) to face them (you have to pick the best Pakistani side to face India from their 15) and win. Explain what are the choices you have, why you chose this 11 and how, using the concepts in this module, they will win.
  - OR
  - You are the mess secretary for your hostel. You decide to institute a new complaint box. Within a week, you have a 100 complaints about a variety of aspects. You say that you will address most of the complaints within the month. (It is understood that some complaints cannot be addressed within a month, or maybe never.) What is your action plan and why? Use the concepts in the module in arriving at your answer.