Decision Making, Creativity, & Innovation

By Reed Thompson and Louis Minuto

Our experience with decision making





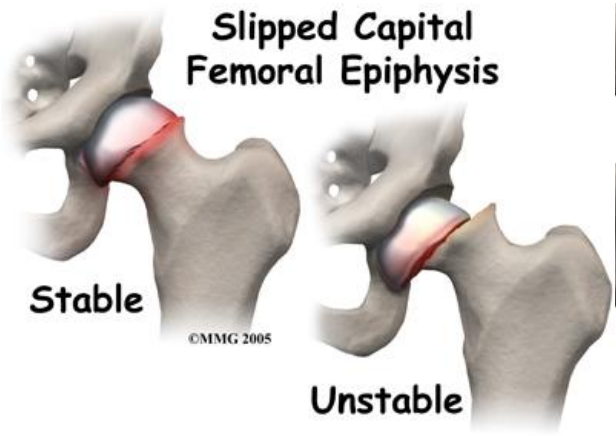


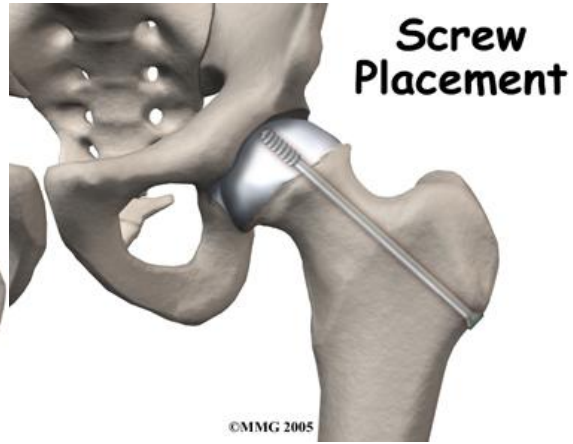




Our experience with decision making







What is Decision Making?

Decision Making is the action or process of identifying a strategy to resolve a problem.

When making a decision, we can consider them either programmed or unprogrammed.



Programmed vs. Unprogrammed

Programmed decisions are automatic responses to routine or recurring problems.

These have occurred in the past and are familiar to that person.



Nonprogrammed decisions respond to new or non routine situations

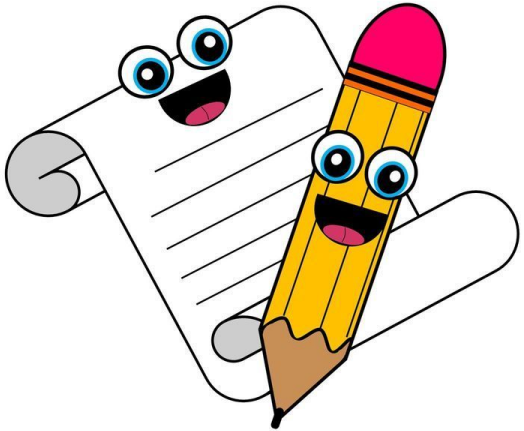
No proven solutions lots of factors that are not understood yet

"What are some decisions you've made today? Were they intentional or automatic?"

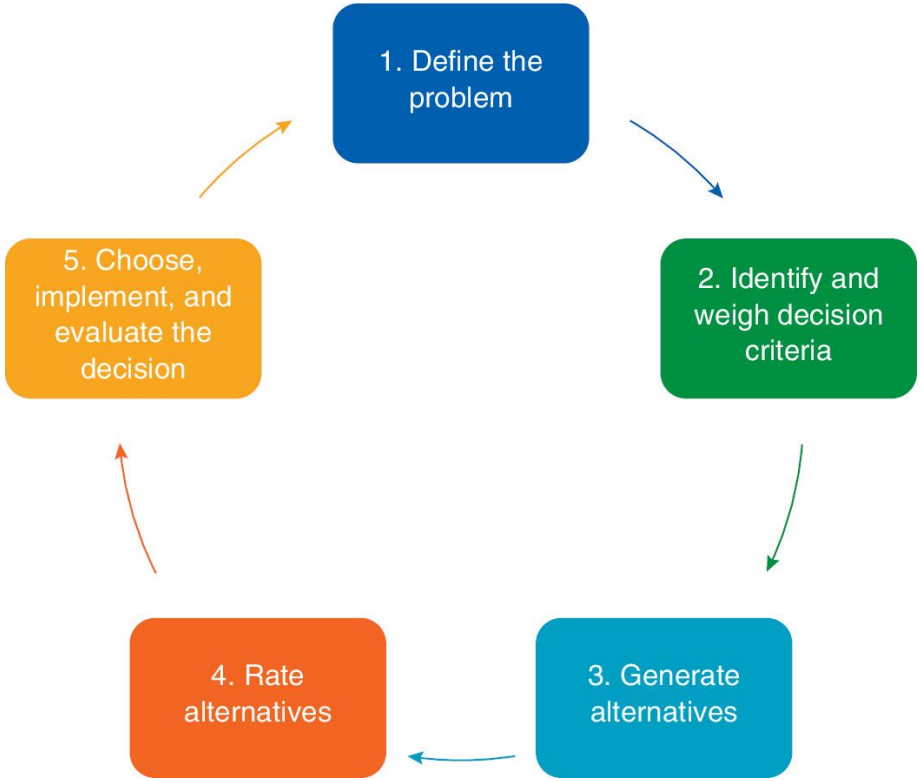


Free Write

Think back to a time several years ago, when you made a decision that still impacts you today. How did that decision shape your life in the time following it? After you finish writing, turn to a partner and talk about what you wrote.



Steps in the decision making process

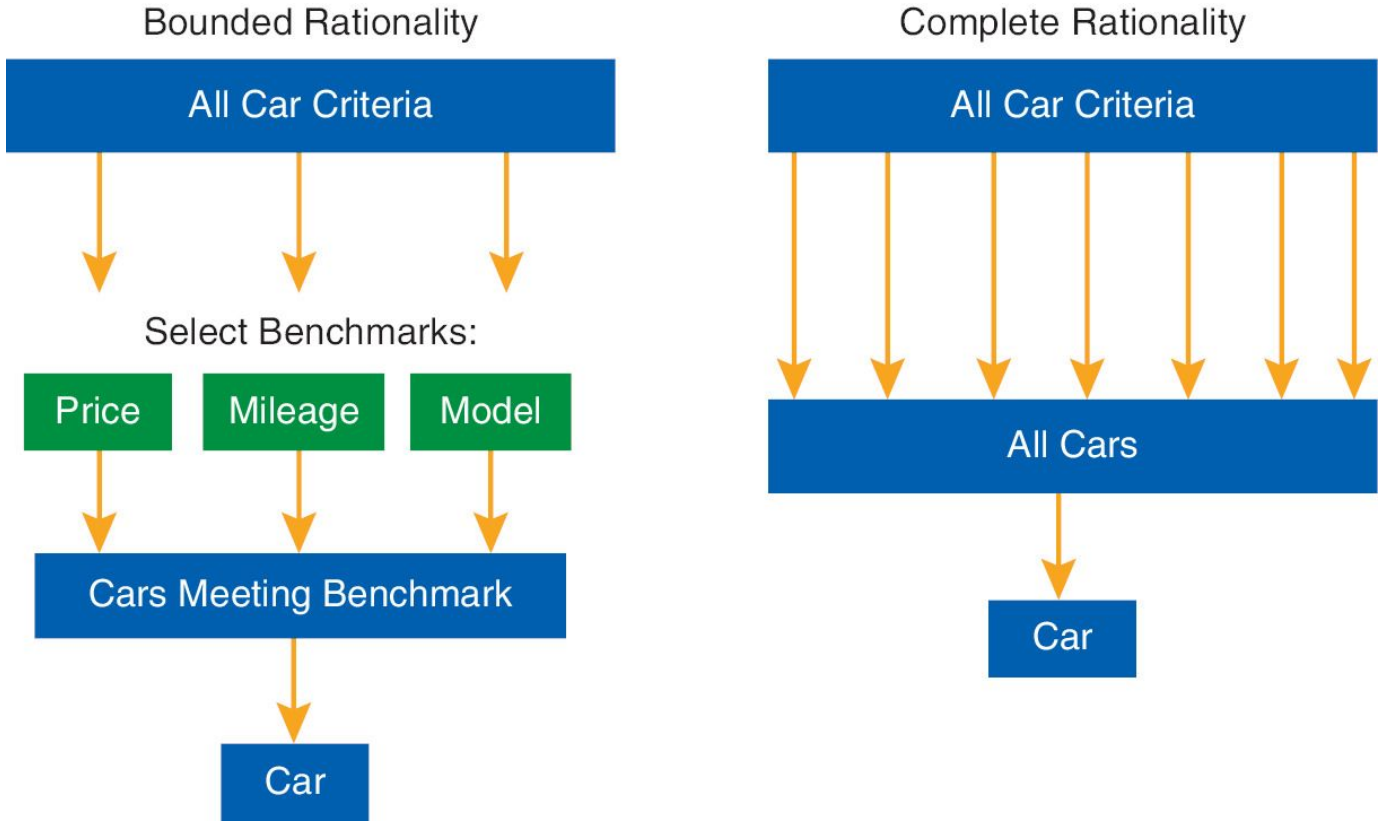


Bounded Rationality vs. Complete Rationality

Bounded rationality is the idea that we are restricted by a variety of constraints when making decisions

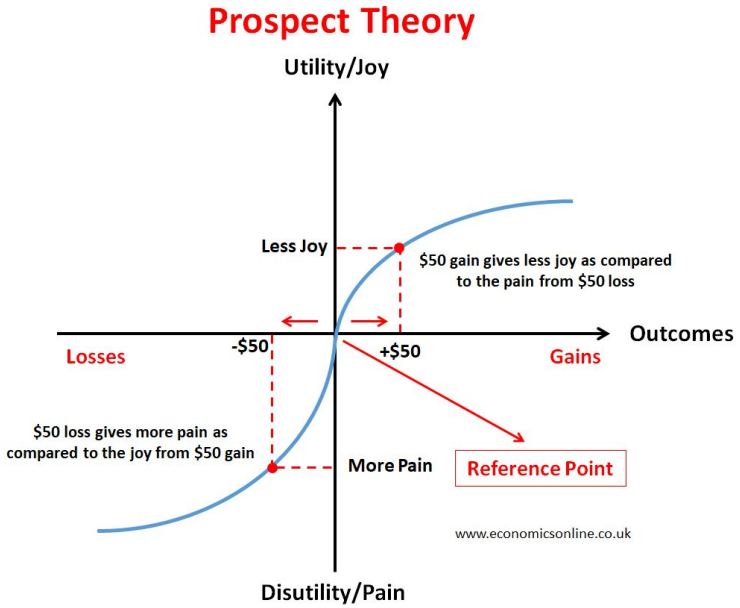
In contrast, complete rationality assumes we take into account all criteria or every possible alternative when making a decision

Bounded Rationality vs. Complete Rationality



Prospect Theory

- Prospect theory is the idea that investors place more weight on perceived wins vs. perceived losses
- An investor presented with two choice, both equal, will choose the one presented in terms of potential gains
- Losses cause greater emotional impact then gains do



Prospect Theory



Satisficing Decisions

Aim for acceptable results rather than for the best or optimal solutions

Can be useful for less important decisions



Intuition

The unconscious process of making decisions based on imagination and possibilities

You are essentially relying on a feeling

May not seem reliable but some research suggests otherwise



Leveraging Both Intuition & Data

- Data driven organizations are three times more likely to report significant decision making improvements
- Data helps quantify and verify complex issues, but data alone isn't always sufficient for abstract problems
  - Over reliance on data can lead to decision delays due to conflicting or excessive data
- Intuition plays a critical role, especially in uncertain circumstances

Combining Data & Intuition

- Naming Emotions: Acknowledge and analyze the emotions behind gut feelings when they conflict with data
- Reflect on why your intuition is diverging from the data
- Consider both the data and your intuition for a more holistic design

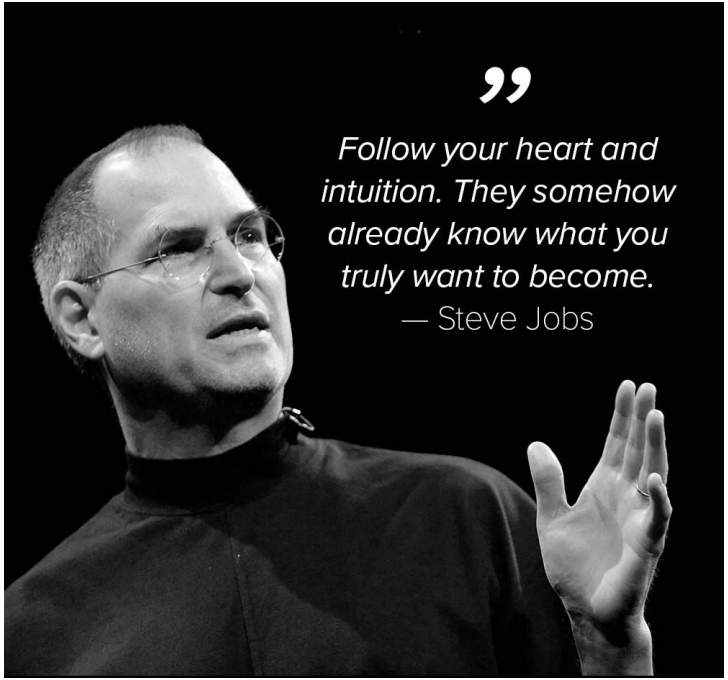


Intuition

One of the biggest advocates of intuition is Steve Jobs

He developed his appreciation for it while studying buddhism in India

Intuitive approach to life is what made him take so many random classes and read books that had nothing to do with his work



Discussion

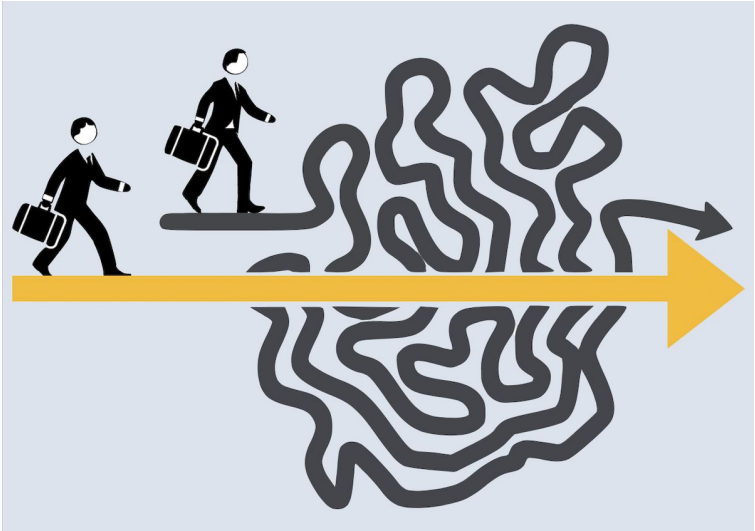
Think About a time when you used intuition to make a decision? Was it a big decision or a small decision? Talk with a partner.



Heuristics

Shortcuts or “rules of thumb” that allow us to make decisions and judgements quickly and efficiently

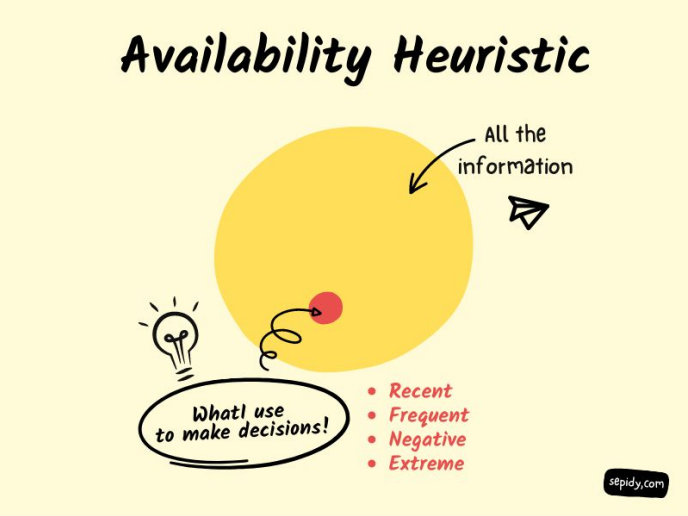
Mental shortcuts for making quick decisions



Availability Heuristics

Allow us to make judgements based on examples and events that are available and immediately spring to mind

- Availability Bias: Making incorrect judgements about certain issues because of our reliance on information that is more readily available to us



Anchoring & Adjustment heuristics

Lead us to base decisions on the first piece of information and then adjust

- Anchoring Bias: Tendency to over rely on initial information while overlooking other important criteria

Representative Heuristics

We base a decision on our existing mental prototype and similar representative stereotype

This affects our ability to access other people accurately because of our fixed ideas about how people in certain roles should behave



Activity

Take out a piece of paper and write down one word that comes to mind when you see the following professions.

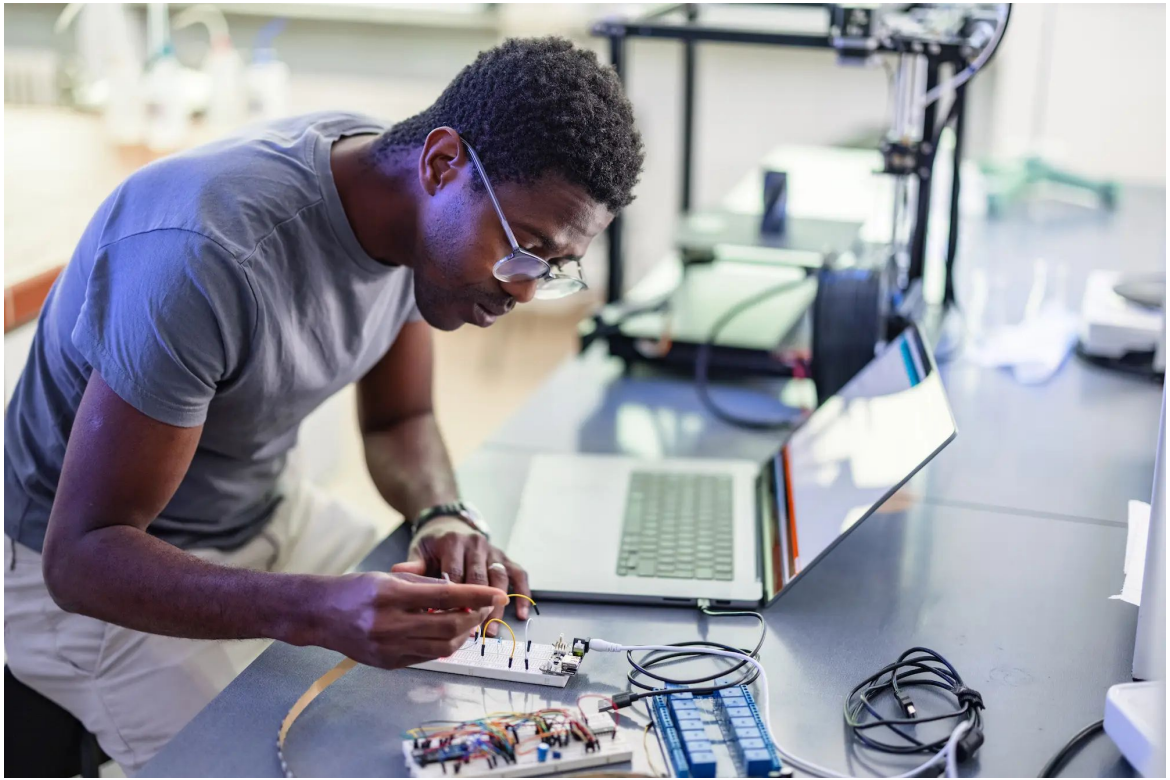
Teacher



Lawyer



Engineer



Doctor



Construction Worker



Reflecting

What stereotypes do you unconsciously use when making quick judgments about people? How might these stereotypes influence your decision-making?

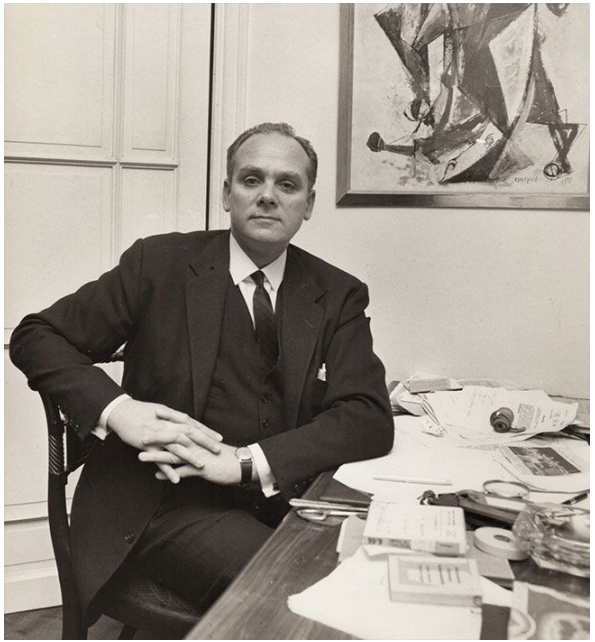
Pros and Cons of Heuristics

- Heuristics can be extremely beneficial because they can save time and cognitive energy
- However, they can lead to errors and biased decisions
- It is important to only use heuristics when the time is right

Good Times	Bad Times
Time-sensitive decisions	High-stakes decisions
Routine, low-risk decisions	When precision is required
When you have experience in the area	Unfamiliar or complex domains
Limited or incomplete information	When biased thinking is likely
Complex/ambiguous situations	Emotionally charged situations

What does it mean to live with intention?

Social scientist and management consultant Elliott Jaques thought that individuals with higher cognitive complexity manage more complex problems and live with greater intention.



What is cognitive complexity?

Cognitive complexity refers to an individual's mental capacity to handle complex information and make decisions based on a wide range of variables.

Essentially, it represents the level of mental sophistication required to effectively perform a role within an organization, with higher levels of the hierarchy requiring more cognitive complexity.



Activity

When you imagine yourself in 10 years, where do you want to live? What criteria matter most to you? How do you weigh those criteria? How might cognitive complexity shape this decision? As a class, we will make a list of criteria and assign weight to each.



Long and Short term time Horizon

A short term horizon refers to people that only look to make decisions that help them in the present.

Long term horizon refers to people who have the ability to look into the future to make their decisions.

People who have a long term time horizon have a higher cognitive complexity because they are able to consider multiple criteria.



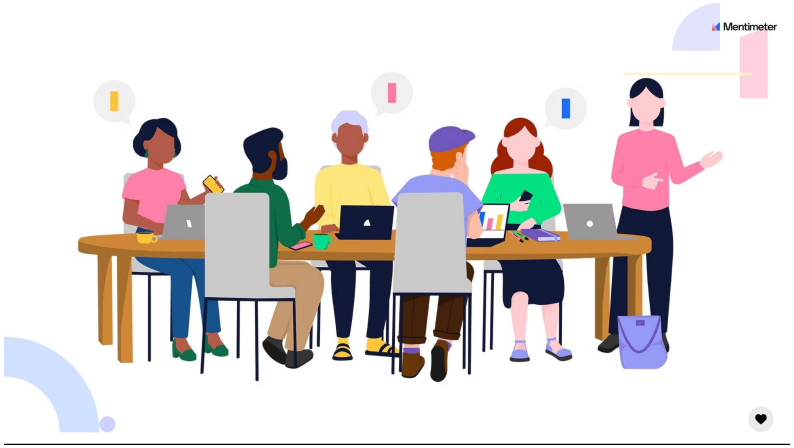
Decision Making in Teams

Diverse Perspectives: Teams bring together different experiences, skills, and viewpoints, leading to more comprehensive decisions.

Improved Problem Solving: Collaborative decision-making leverages the collective intelligence of the group, often leading to innovative solutions.

Shared Accountability: Decisions made by teams often have greater buy-in from all members, making execution more effective.

Complexity Handling: Teams can tackle complex and multifaceted issues more effectively than individuals due to combined expertise and input.



Steps For Effective Team Decision Making

Clarify the Decision Problem: Ensure that everyone understands the problem or decision to be made. This prevents misalignment in objectives.

Foster Open Communication: Encourage each team member to share their thoughts, ensuring all voices are heard, which helps avoid groupthink.

Evaluate Alternatives: Use structured frameworks (e.g., pros and cons, decision matrix) to assess options, ensuring all possible solutions are considered.

Reach Consensus or Majority Decision: Decide whether to go for consensus or use voting to arrive at the best option. Balance efficiency and inclusivity.

Assign Roles & Actions: After the decision, ensure clear role assignments to implement the decision effectively.

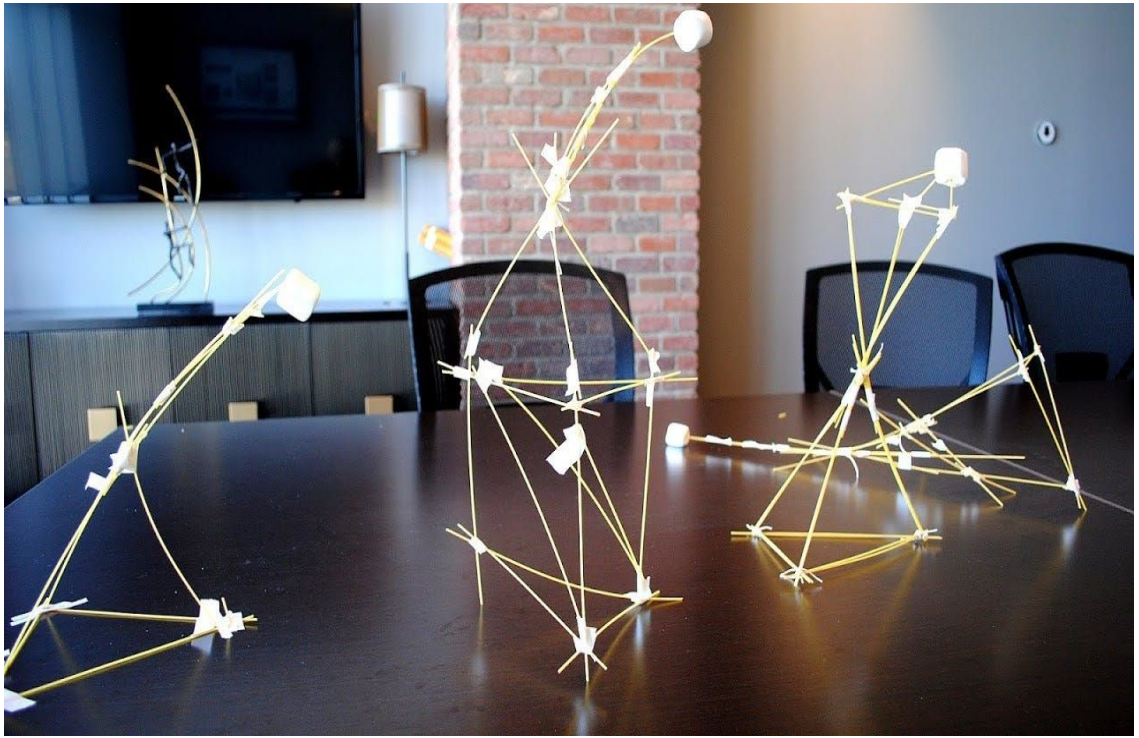
Marshmallow Tower

Objective: Enhance creative problem-solving and collaboration in team decision-making.
Materials: 20 sticks of spaghetti, 1 yard of tape, 1 yard of string, 1 marshmallow per team.
Instructions:

- Each team has 18 minutes to build the tallest free-standing structure possible using only the materials provided. The marshmallow must be placed on top.
- **Debrief**: After the activity, discuss the decision-making process each team used. Reflect on how they managed time, roles, and competing ideas. What strategies worked? What challenges did they face?

https://youtube.com/shorts/8y7pBd7V-dk?si=zOe-e37HWV4dahsq

Marshmallow Challenge



Debrief Questions

- Did your group deal with differing opinions on how to build the structure?
  - If so how did you manage those differences?
- Were roles assigned?
- Did your team explore different ideas or stick to one?
- What strategies worked? Which did not?