



What is challenging about decision-making and problem-solving?



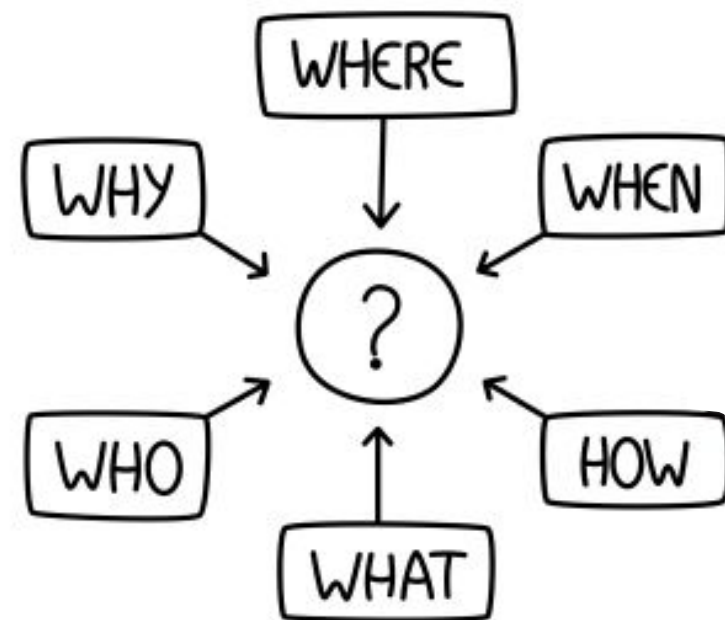




Reason #1

**Difficult to
pinpoint the real
problem**





Reason #2

Difficult to overcome intuition and cognitive biases



Heuristics

**Anchoring and
Adjustment
Heuristic**

**Availability
Heuristic**

**Representative
Heuristic**

Decision-Making Biases

**Confirmation
Bias**

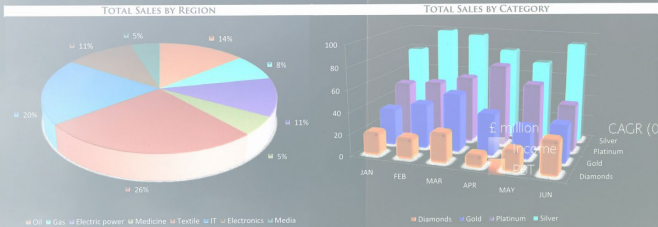
**Escalation of
Commitment**

**Overconfidence
Bias**

Social Biases

**Fundamental
Attribution
Error**

**Self-Serving
Bias**

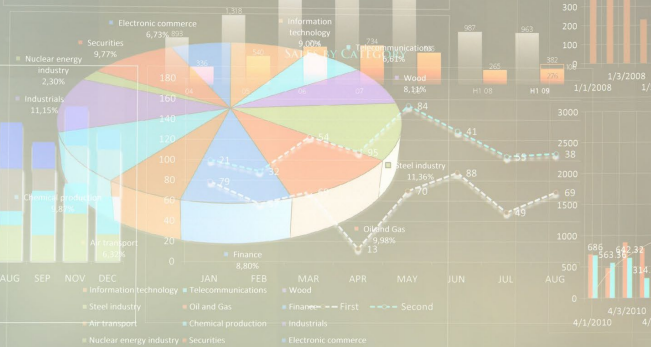
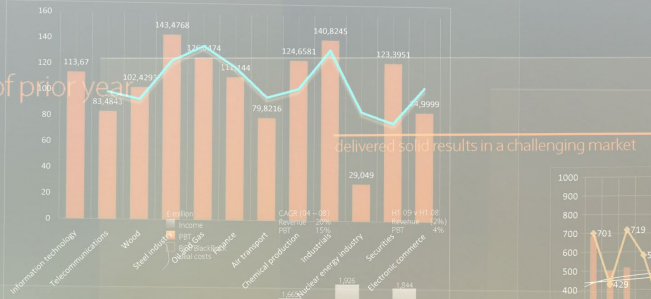


REGION SALES	SALES BY CATEGORY	SALES BY CATEGORY
West: € 1 236 345.0	Copper: € 1 236 345.0	Steel: € 1 236 345.0
South: € 1 896 354.0	Gold: € 1 896 354.0	Platinum: € 1 896 354.0
East: € 1 893 543.0	Silver: € 1 893 543.0	Aluminum: € 1 893 543.0
Total: € 7 995 587.0	Platinum: € 7 995 587.0	Steel: € 7 995 587.0

SALES	BUY	SELL
Copper: € 1 236 345.0	€ 1 236 345.0	€ 1 236 345.0
Gold: € 1 896 354.0	€ 1 896 354.0	€ 1 896 354.0
Platinum: € 1 893 543.0	€ 1 893 543.0	€ 1 893 543.0
Silver: € 7 995 587.0	€ 7 995 587.0	€ 7 995 587.0
Aluminum: € 542.00	€ 552.90	€ 30.40%
Beryllium: € 526.00	€ 541.89	€ 28.80%
Manganese: € 540.00	€ 548.80	€ 12.20%
Aluminum: € 588.00	€ 576.77	€ 23.60%
Chromium: € 535.00	€ 542.26	€ 26.00%
Nickel: € 5517.00	€ 5578.01	€ 11.80%
Bauxite: € 588.00	€ 5753.24	€ 29.20%

SALES	BUY	SELL
Cotton: € 5118.00	€ 5162.60	€ 37.80%
Flax: € 5191.00	€ 5191.38	€ 0.20%
Textiles: € 5208.00	€ 5264.58	€ 27.20%
Wool: € 5217.00	€ 5244.34	€ 12.60%
Fur: € 5199.00	€ 5216.11	€ 8.60%
Sateen: € 5172.00	€ 5173.03	€ 0.60%
Silk: € 5109.00	€ 5151.07	€ 38.60%

very strong income performance well ahead of prior year



DAT	BID	ASK	PRO	QUA
JAN	€ 241.00	€ 558.00	€ 104.00	339
FEB	€ 955.00	€ 348.00	€ 374.00	223
MAR	€ 116.00	€ 415.00	€ 930.00	269
APR	€ 262.00	€ 146.00	€ 107.00	437
MAY	€ 839.00	€ 890.00	€ 801.00	934
JUN	€ 706.00	€ 579.00	€ 691.00	933
JUL	€ 622.00	€ 870.00	€ 933.00	691
AUG	€ 557.00	€ 779.00	€ 934.00	801
SEP	€ 50.00	€ 300.00	€ 437.00	107
OCT	€ 817.00	€ 518.00	€ 269.00	930
NOV	€ 173.00	€ 331.00	€ 223.00	374
DEC	€ 608.00	€ 599.00	€ 339.00	1049

	Sale	Buy	Grow
Gold	\$647.00	\$904.51	39.82%
Platinum	\$1381.00	\$1509.78	13.32%
Silver	\$774.00	\$1061.93	37.20%
Copper	\$616.00	\$837.76	35.90%
Steel	\$489.00	\$537.50	18.20%
Beryllium	\$733.00	\$754.83	3.00%
Manganese	\$598.00	\$795.34	33.00%
Aluminum	\$399.00	\$354.61	18.50%
Chromium	\$666.00	\$727.27	9.20%
Nickel	\$421.00	\$453.84	7.80%
Bauxite	\$730.00	\$791.32	8.40%

	Sale	Buy	Grow
Cotton	\$162.00	\$198.34	21.20%
Flax	\$172.00	\$184.32	6.00%
Textiles	\$243.00	\$310.48	36.20%
Wool	\$267.00	\$355.68	31.50%
Fur	\$116.00	\$118.55	2.20%
Sateen	\$201.00	\$246.43	22.60%
Silk	\$177.00	\$184.78	4.40%

	Sale	Buy	Grow
Oil	\$609.00	\$811.10	33.20%
Gas	\$510.00	\$708.98	37.40%
Grains	\$527.00	\$691.10	30.90%



DAT	BID	ASK	PRO	QUA
JAN	€ 942.00	€ 348.00	€ 820.00	820
FEB	€ 685.00	€ 920.00	€ 784.00	784
MAR	€ 993.00	€ 604.00	€ 934.00	934
APR	€ 228.00	€ 202.00	€ 555.00	555
MAY	€ 468.00	€ 685.00	€ 386.00	386
JUN	€ 609.00	€ 963.00	€ 974.00	974
JUL	€ 617.00	€ 240.00	€ 575.00	575
AUG	€ 939.00	€ 858.00	€ 645.00	645
SEP	€ 654.00	€ 248.00	€ 941.00	941
OCT	€ 911.00	€ 952.00	€ 802.00	802
NOV	€ 829.00	€ 715.00	€ 715.00	715
DEC	€ 748.00	€ 542.00	€ 557.00	557



1

**Define
Problem**

2

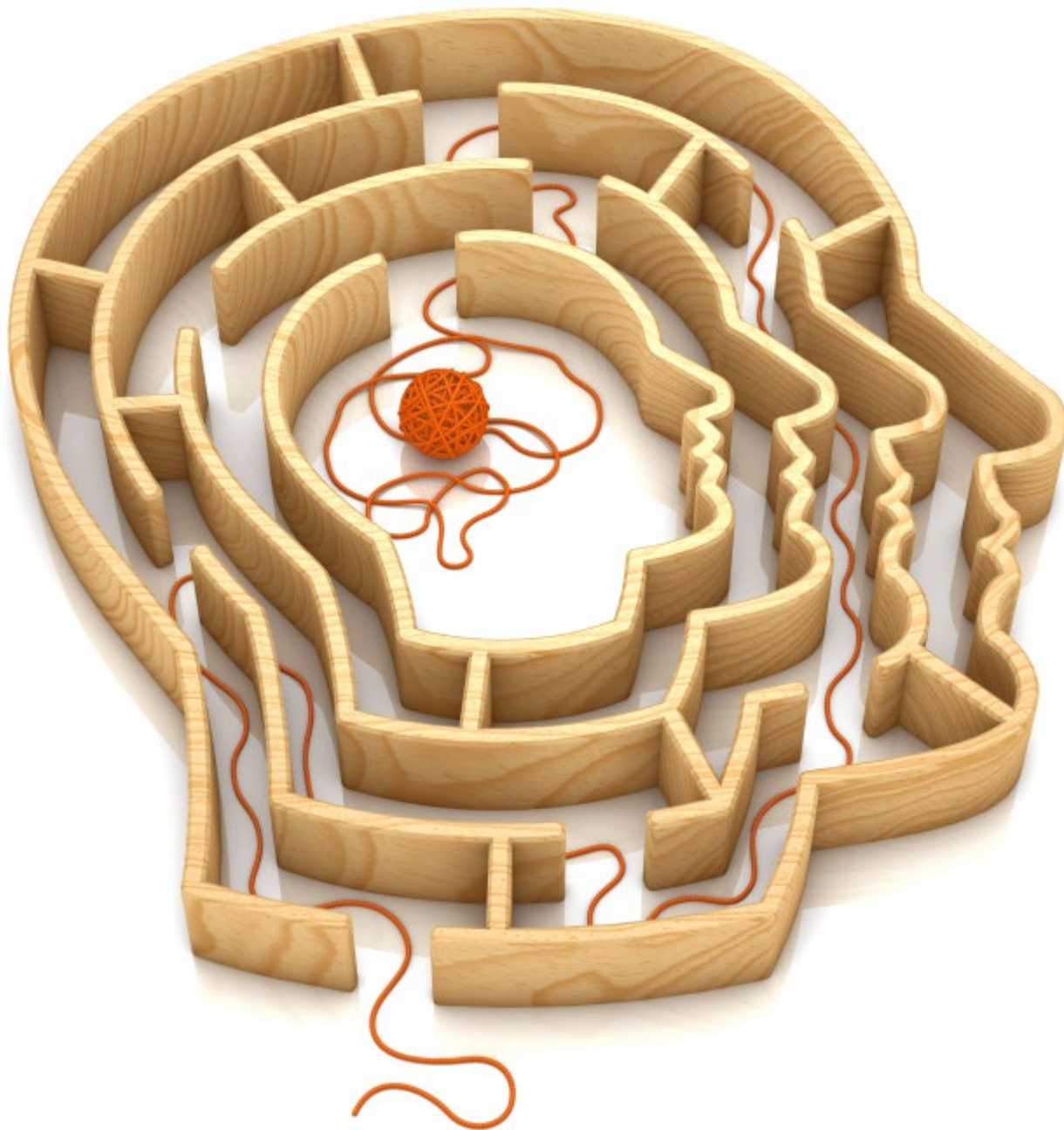
**Generate
Alternatives**

3

**Evaluate
Alternatives
and Choose
Solution**

4

**Implement
and
Evaluation
Solution**

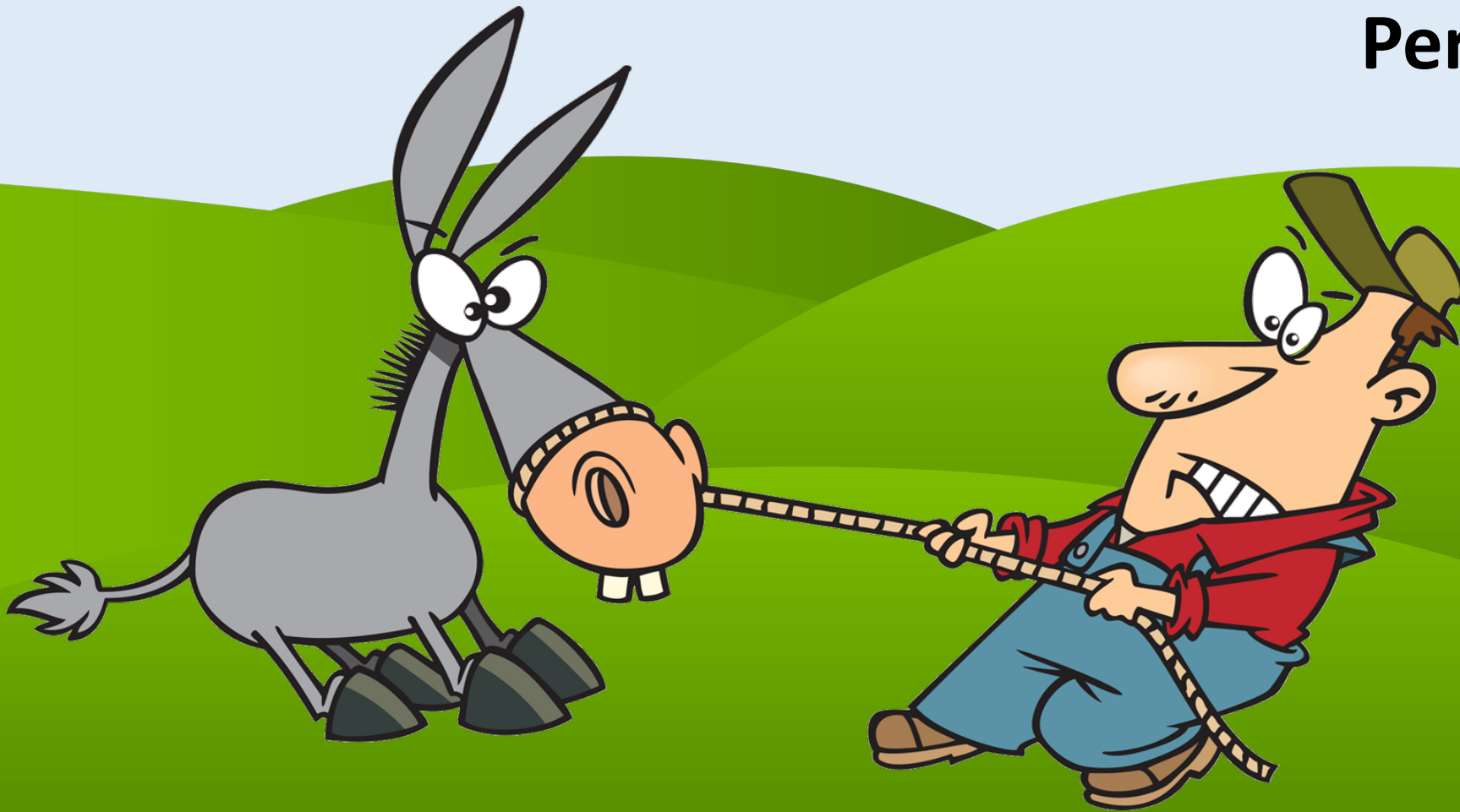


**What
heuristics
can interfere
with our
decisions?**

Heuristics:

Mental shortcuts

**Awareness
Practice
Persistence**



Heuristics

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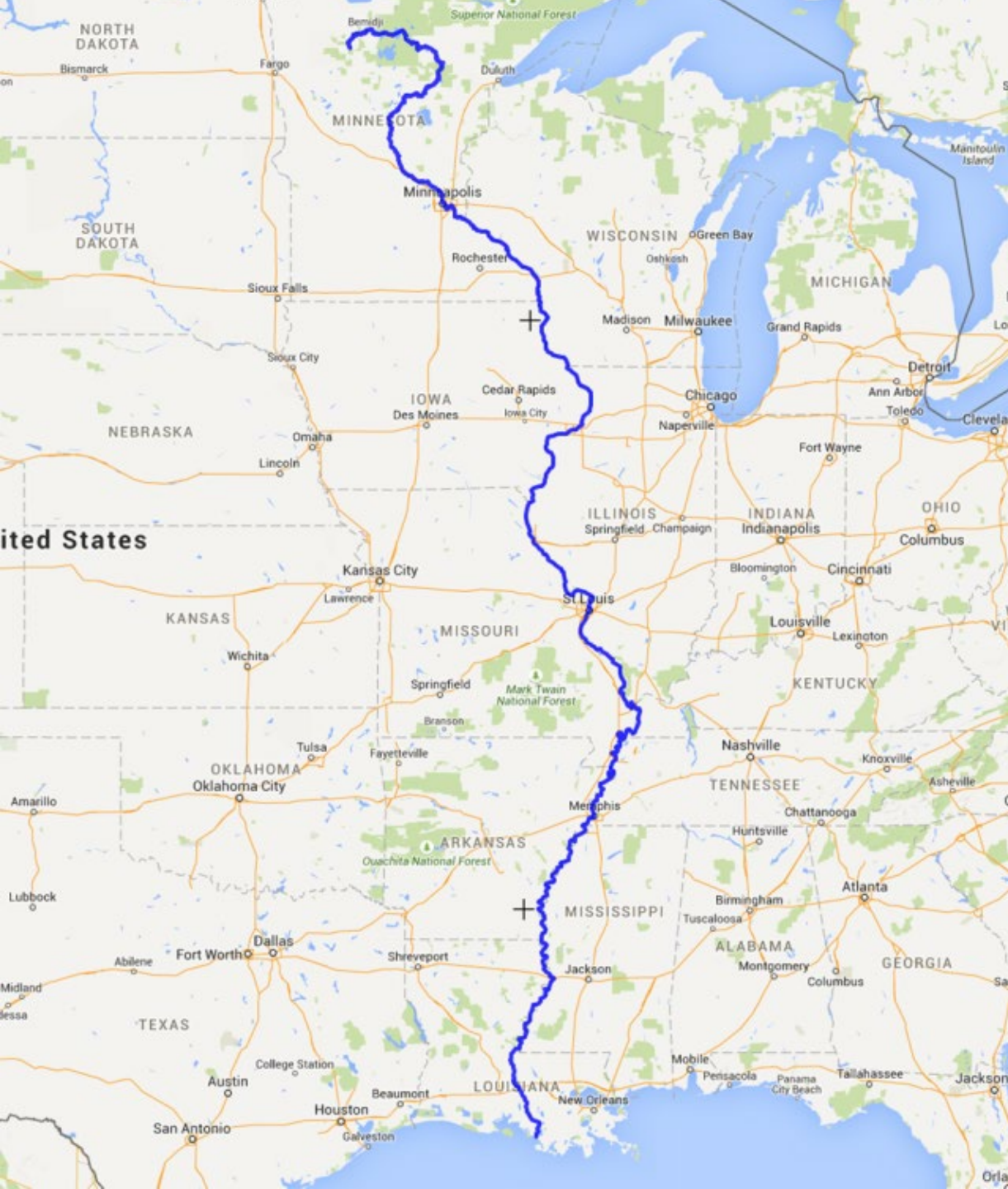
Anchoring and adjustment effect:

Occurs when an initial estimate leads you to
adjust your estimate



How long is the
Mississippi River?
Is it more or less
than 5,000 miles?





How long is the
Mississippi River?
Is it more or less
than 2,500 miles?



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Availability heuristic:

Occurs when we use information that is readily available in memory instead of searching for more information



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Representative heuristic:

Occurs when we use past experiences and mental representations to make decisions about new situations

I went to an ivy league school, and I worked in Washington D.C. for a few years. I work 24/7, and I don't take no for an answer.



A group of five business professionals are seated around a conference table in a modern office setting. A Black man in a light blue shirt is shaking hands with a white man in a light blue shirt. A blonde woman is on the left, and a woman with dark hair and a man with grey hair are in the background. A large thought bubble is positioned above the handshake, containing the text "Manager!".

Manager!

**What biases
can interfere
with our
decisions?**



Bias:

The tendency to make irrational or illogical judgments

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Confirmation bias:

Occurs when we attend to information that supports our existing beliefs, but ignore information that conflicts with our beliefs





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Escalation of commitment:

Occurs when we continue with the same course of action even though we don't know that it will pay off in the future



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Overconfidence bias:

Occurs when we are too confident in
ourselves



College students
made better
predictions and relied
on probabilities and
previous stock
performance

Stock analysts made
worse predictions and
relied on personal
experience and
industry knowledge

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Fundamental attribution error:

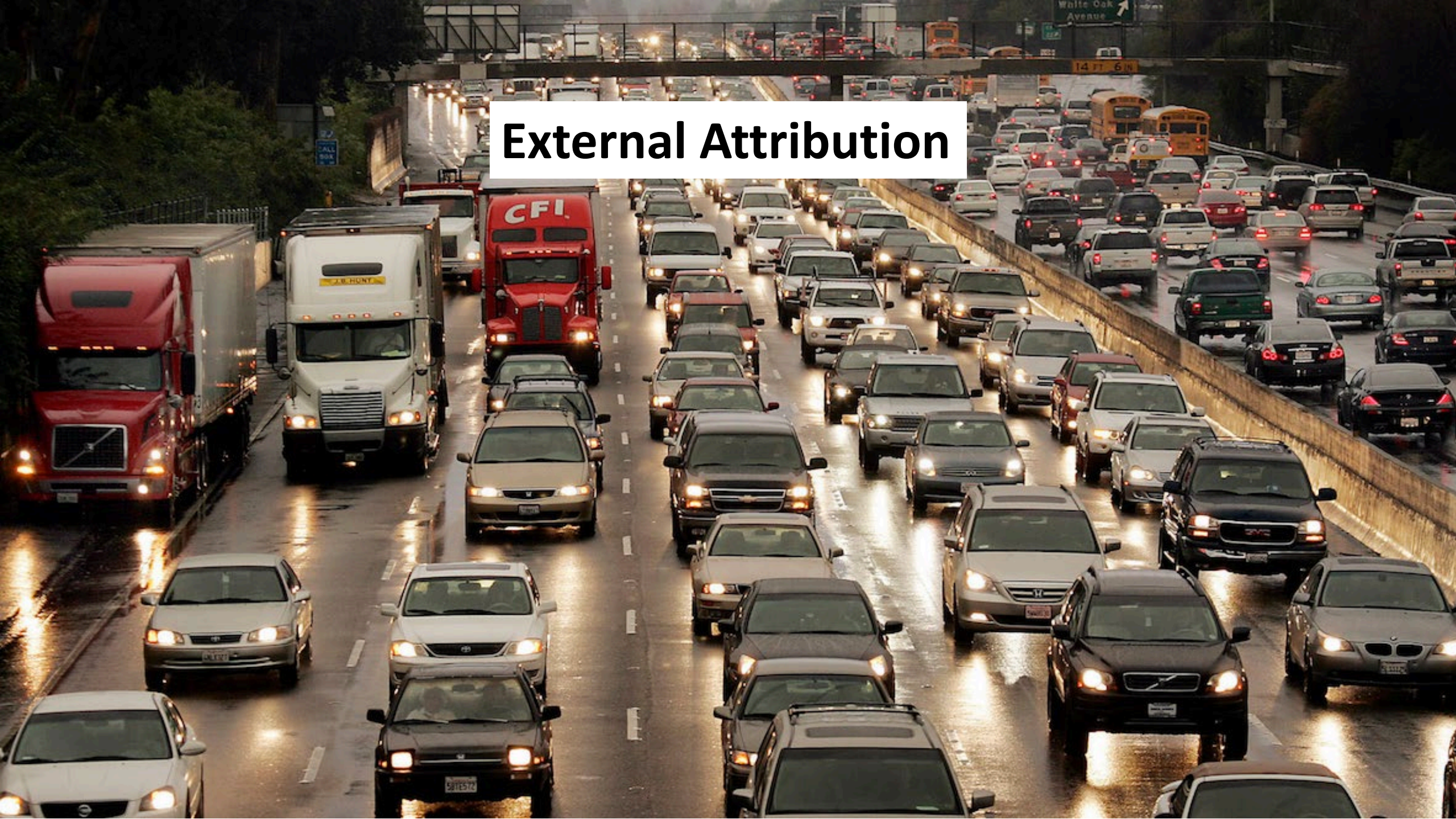
Occurs when we attribute others' behaviors to internal causes rather than external causes



Internal Attribution



External Attribution



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Self-serving bias:

Occurs when we attribute our successes to internal causes and failures to external causes

Success

**Personal
Attributions**



Failure

**Situational
Attributions**



I'm so smart!

Report Card

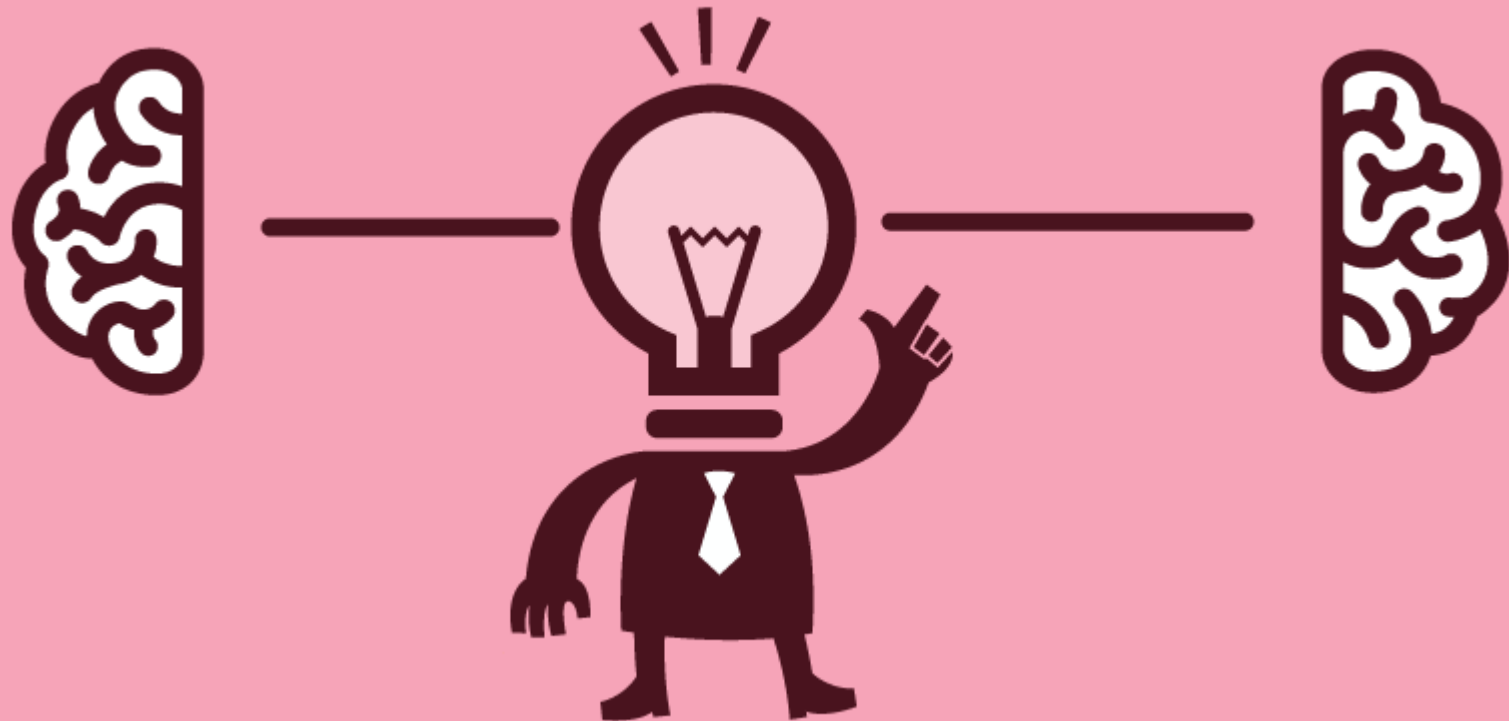
A+

**The class was
too hard!**

Report Card

F

**Expand the way you think about other
people and events in your work
environment.**



**How can we
define the
problem?**



1

**Define
Problem**

2

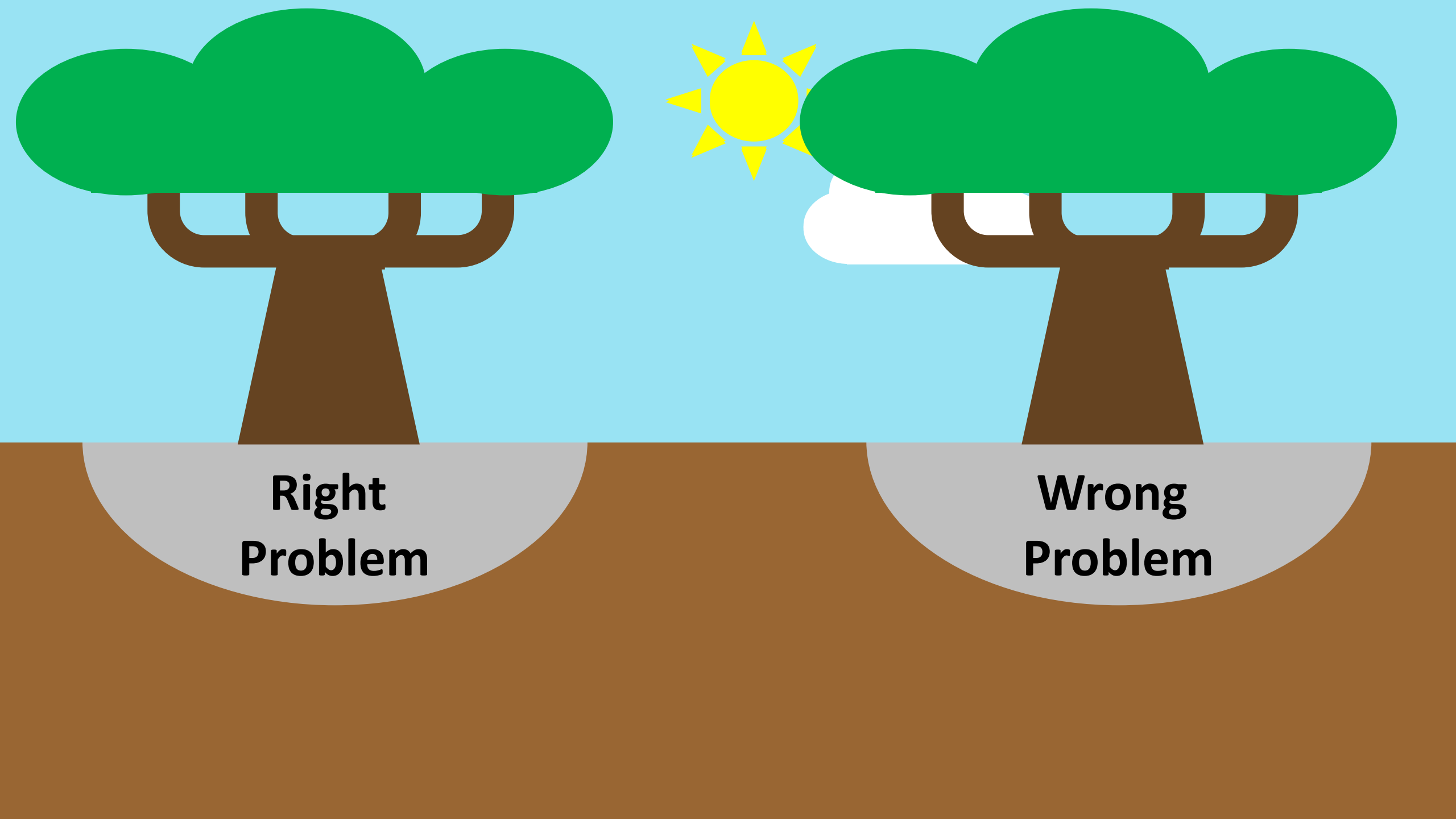
**Generate
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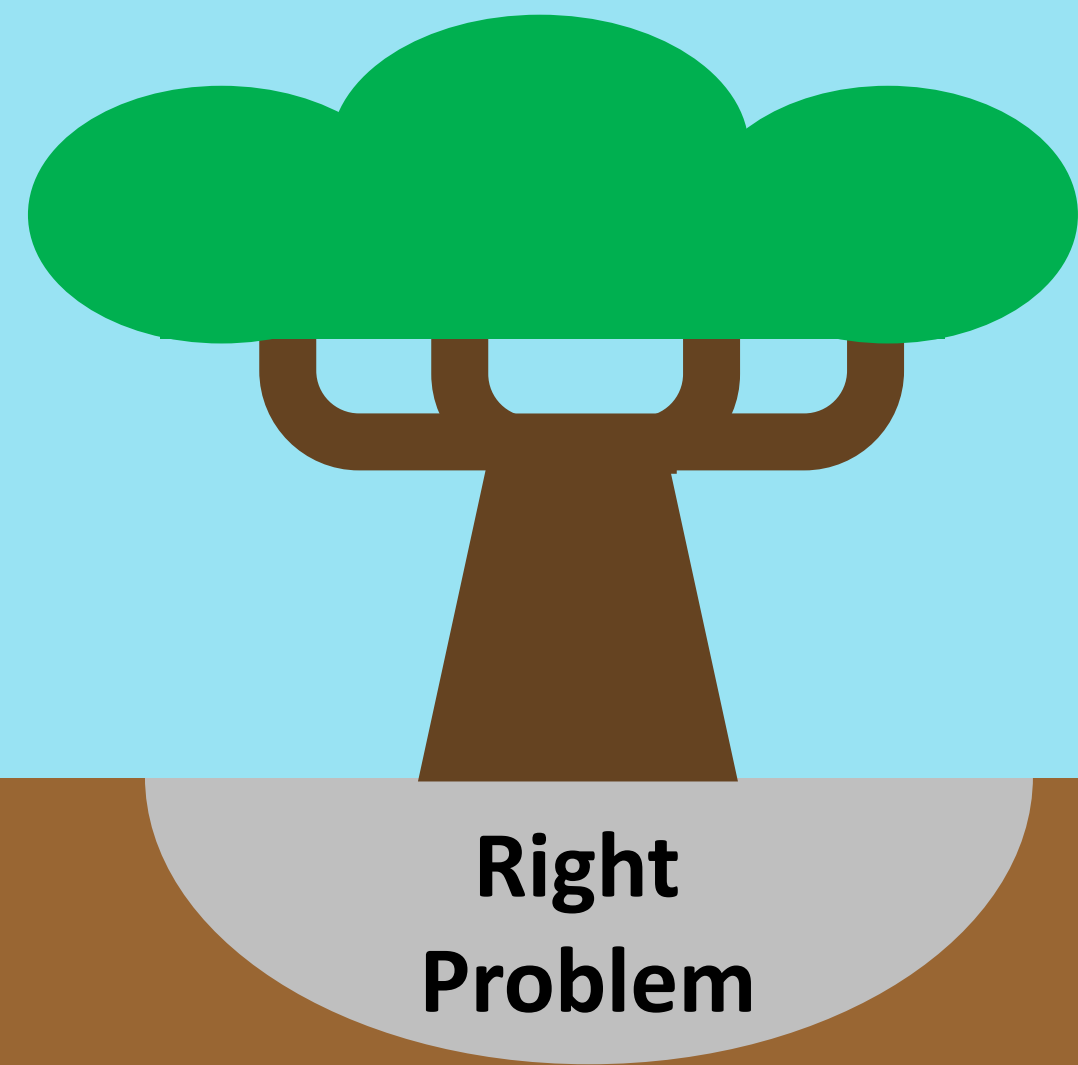
4

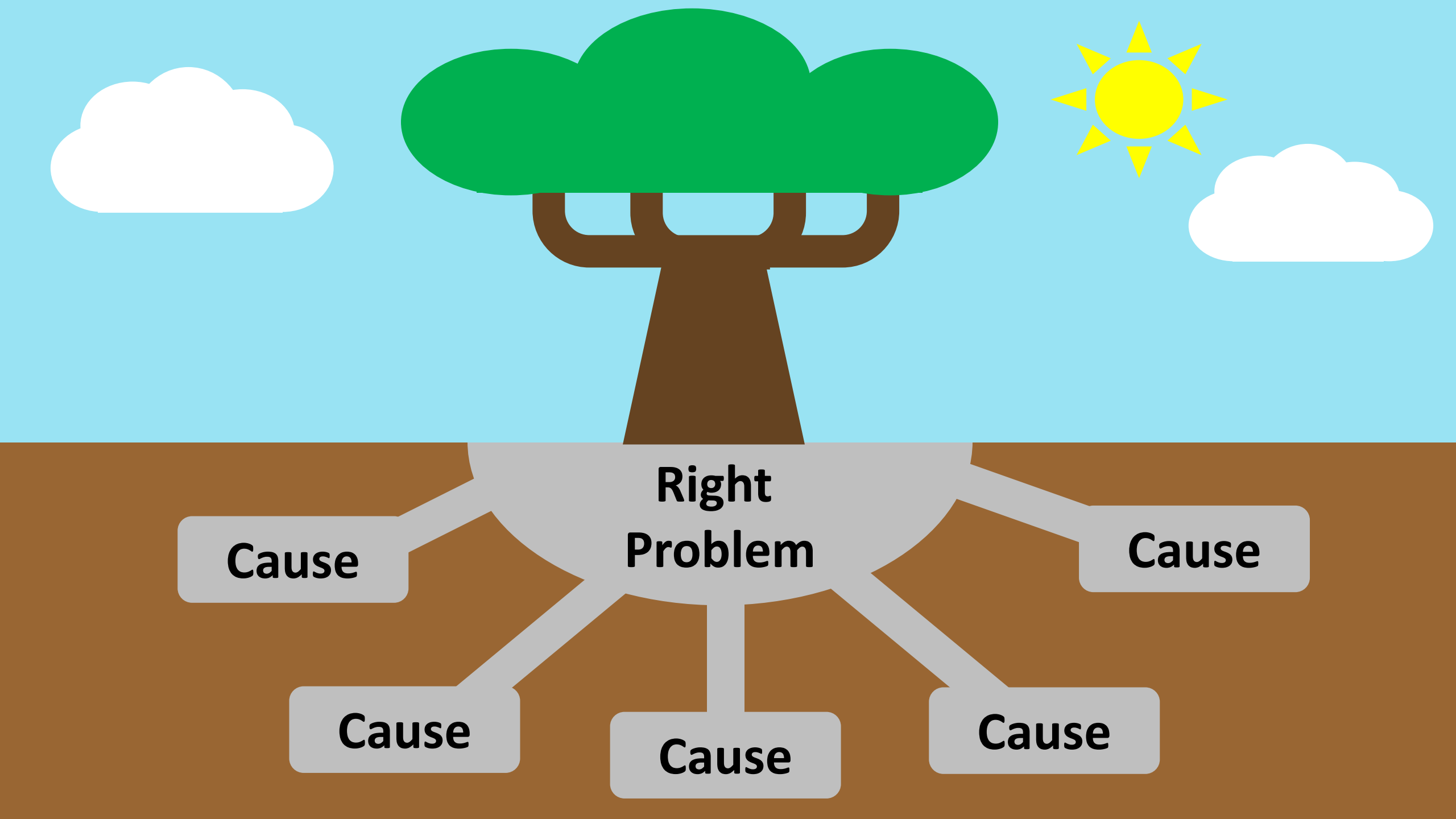
**Implement
and
Evaluation
Solution**



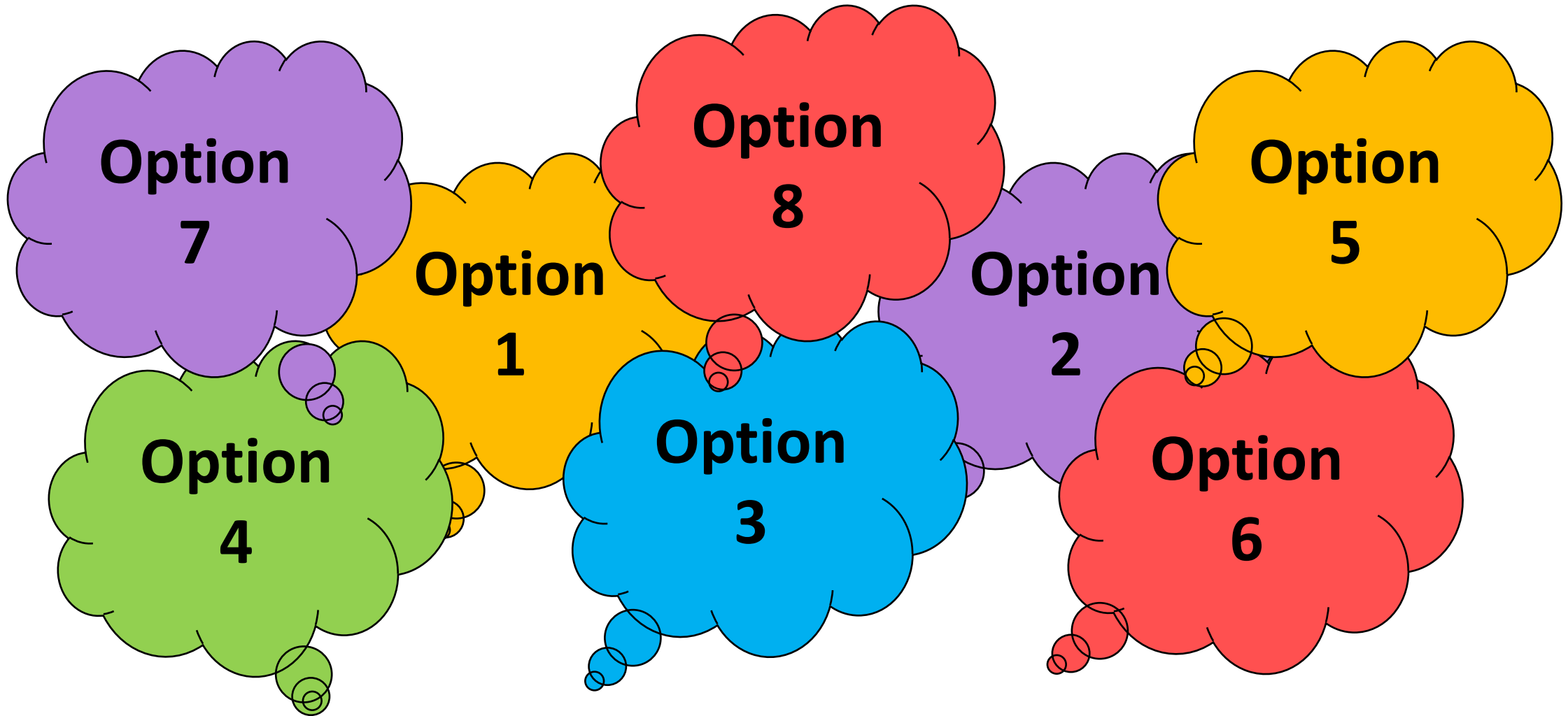
**Right
Problem**

**Wrong
Problem**





1. Frame the problem accurately



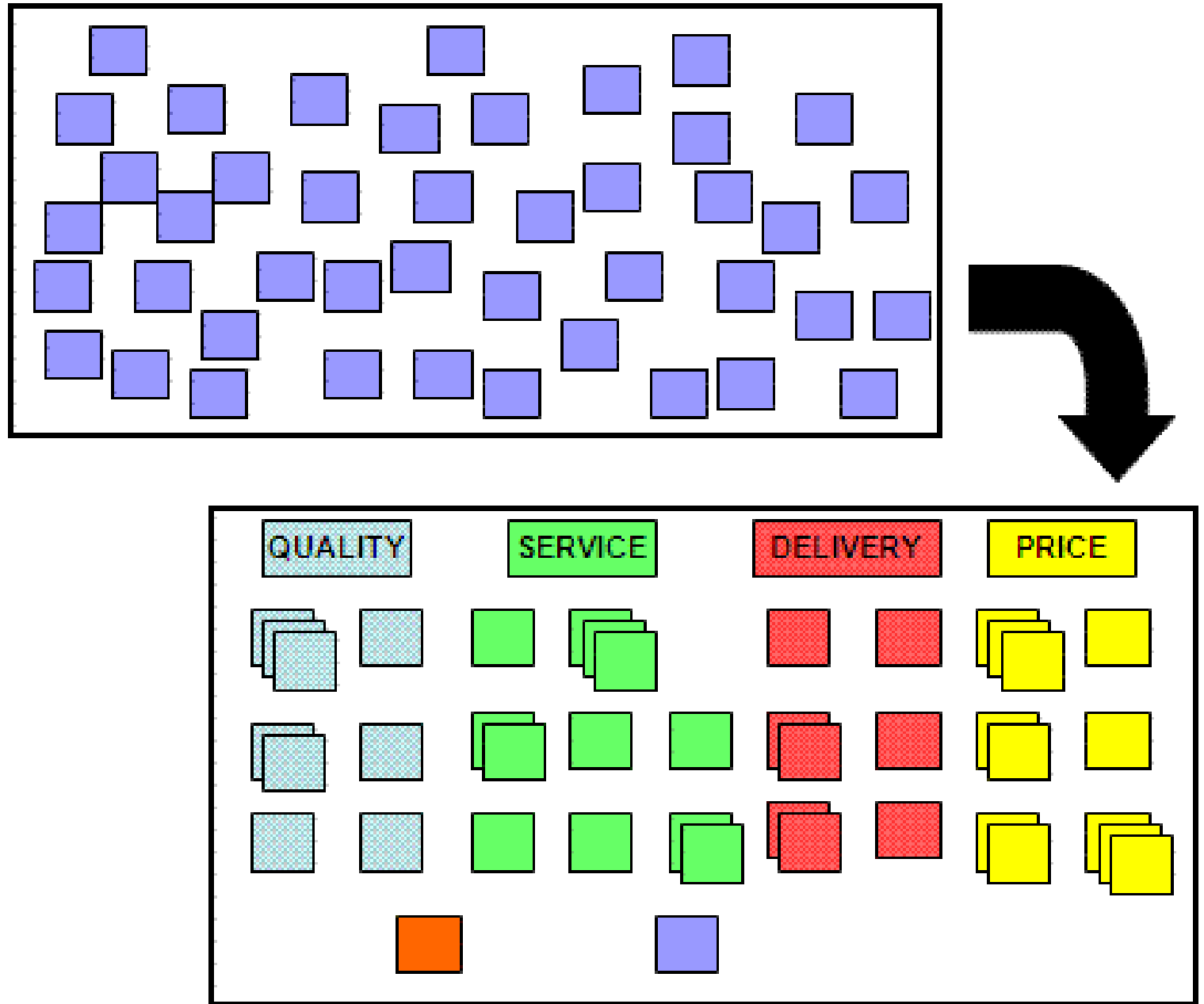


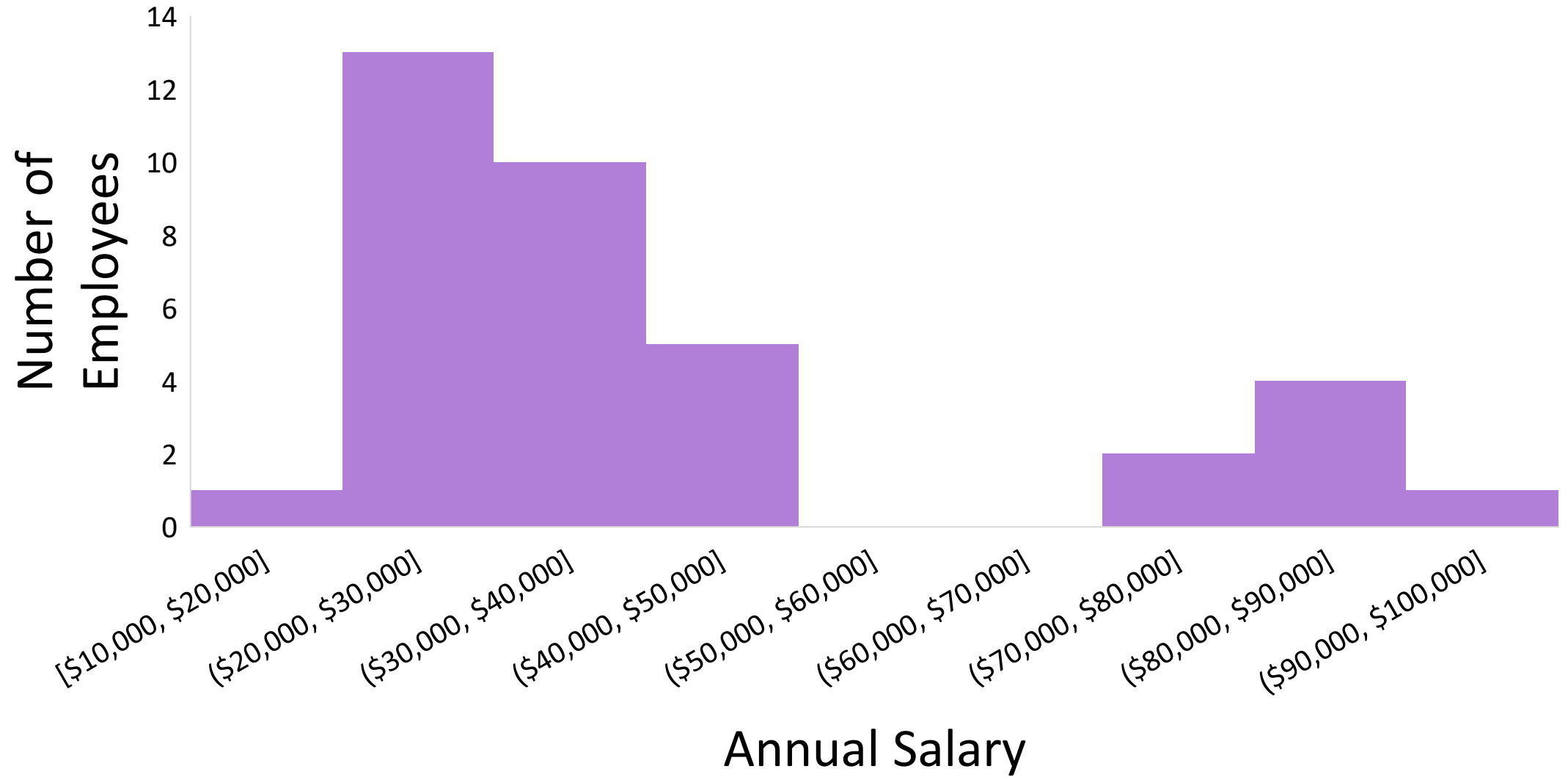
2. Identify the problem scope

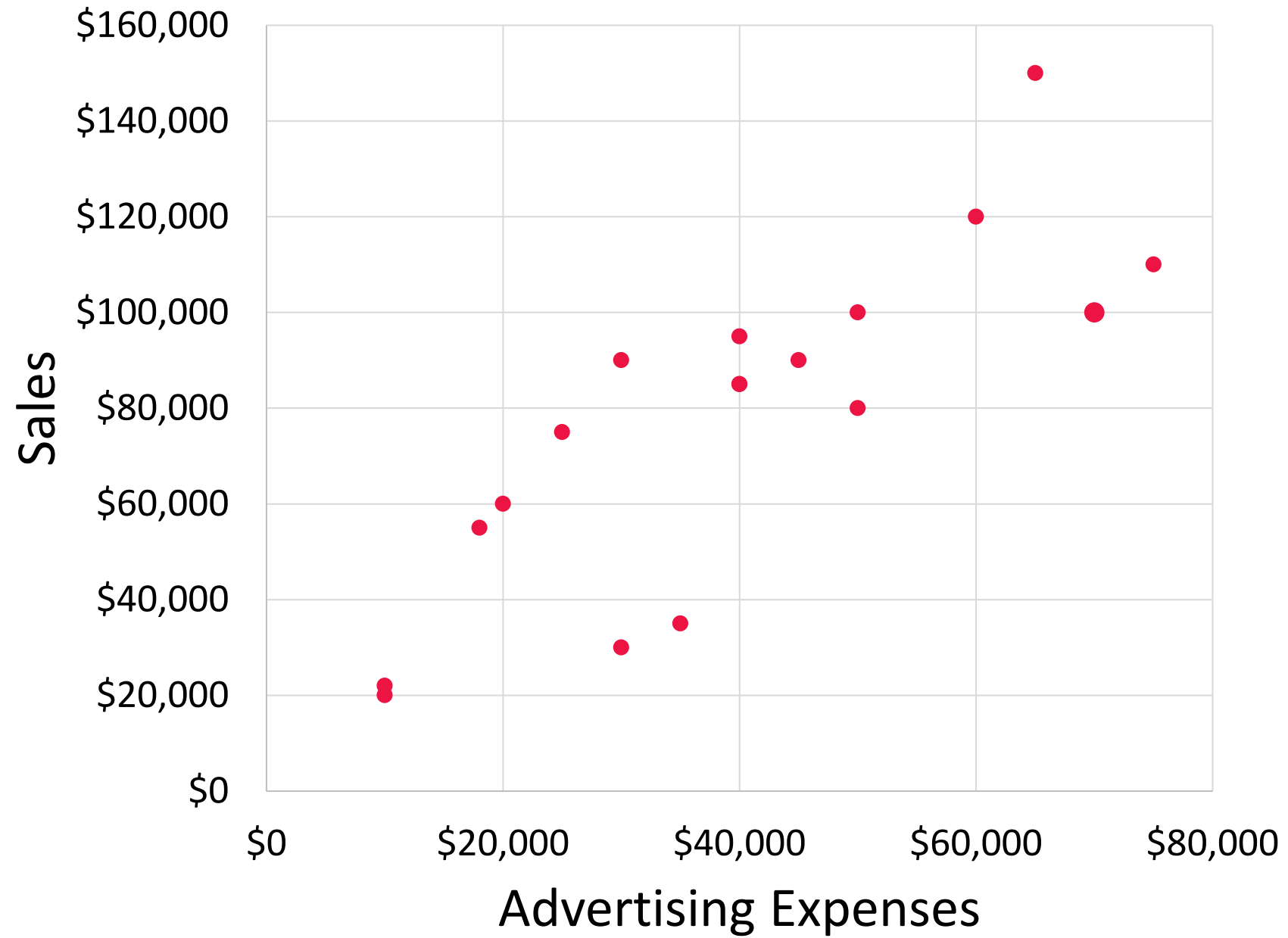
Problem scope:

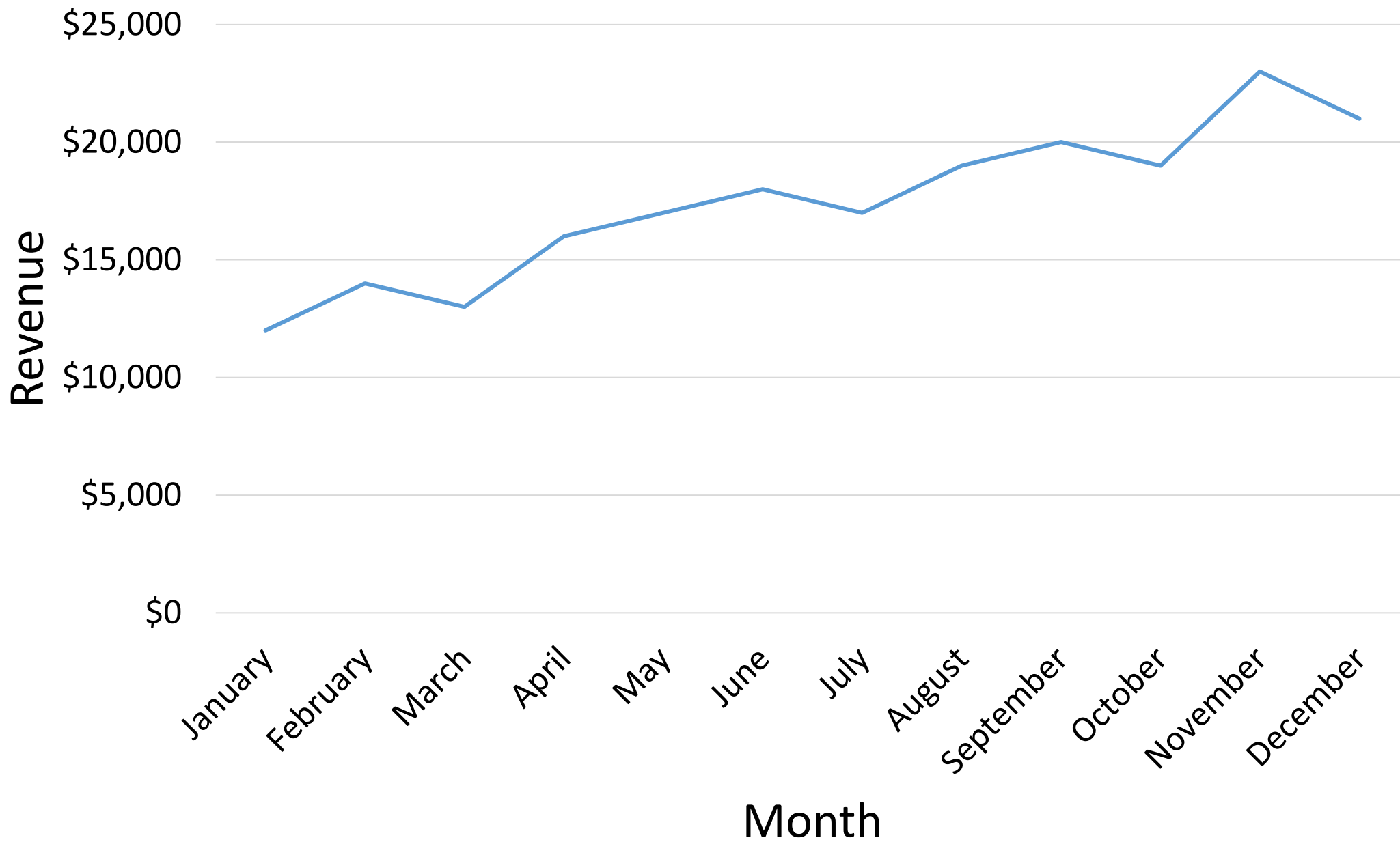
Outlines the boundaries of the problem

Use affinity diagrams to categorize ideas

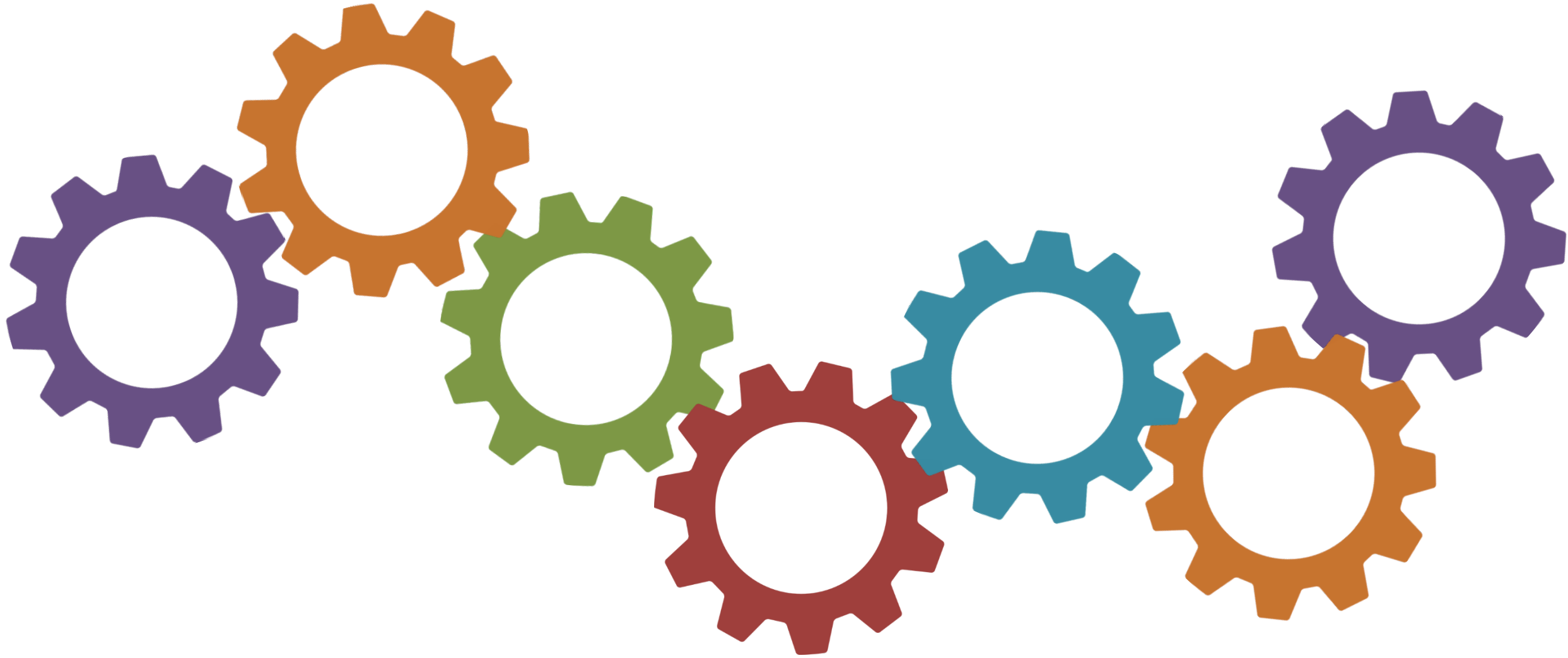






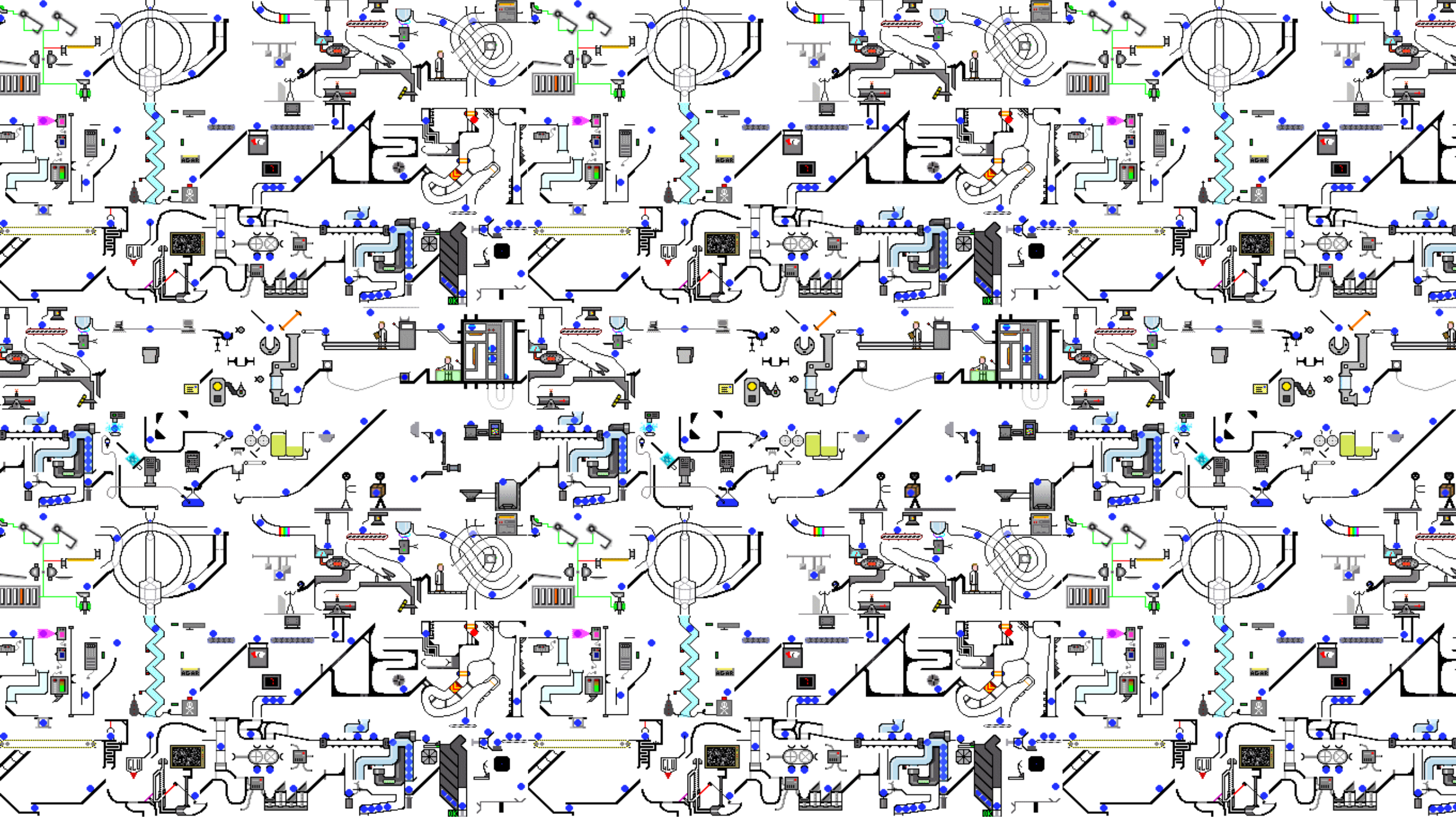


3. Use systems thinking



System:

A complex unit made up of interrelated parts



**We assume this is
the problem.**



EXIT



**But this is the real
problem.**

ENTER



EXIT



**We assume this is
the problem.**



4. Practice inquiry skills

- Ask questions
- Collect new information
- Challenge assumptions
- Identify intended and unintended consequences



Who are stakeholders, and how do they contribute to the process?



1. Conduct stakeholder analysis



Stakeholders:

Individuals who have an interest in the
organization

Identify goals

Gauge support

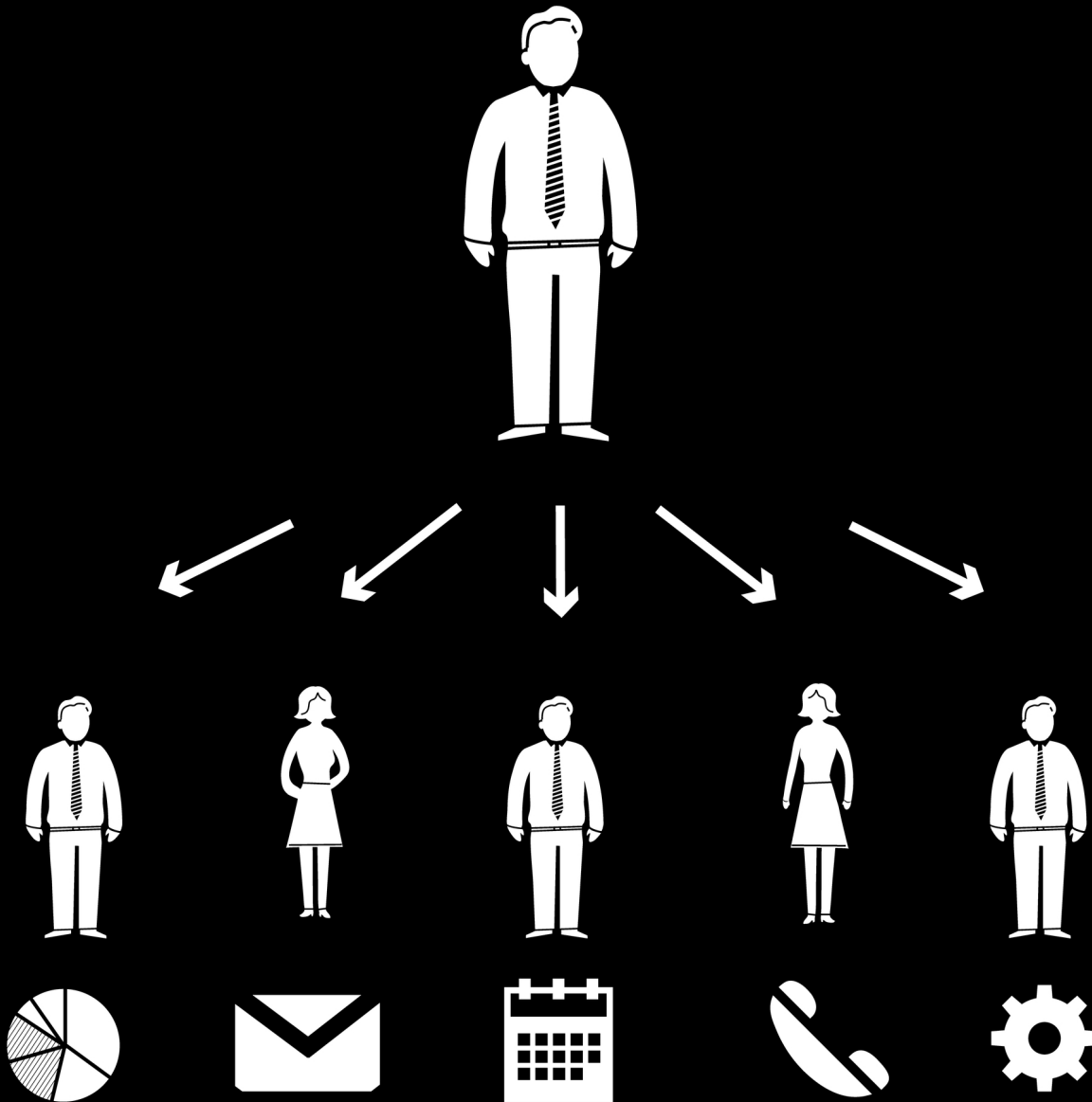


Internal Stakeholders



External Stakeholders

2. Determine stakeholder participation





Delegate to Group

Facilitate Group

Consult Group

Consult Individually

Decide

#1 – Is decision quality important?

#2 – Is team commitment important?

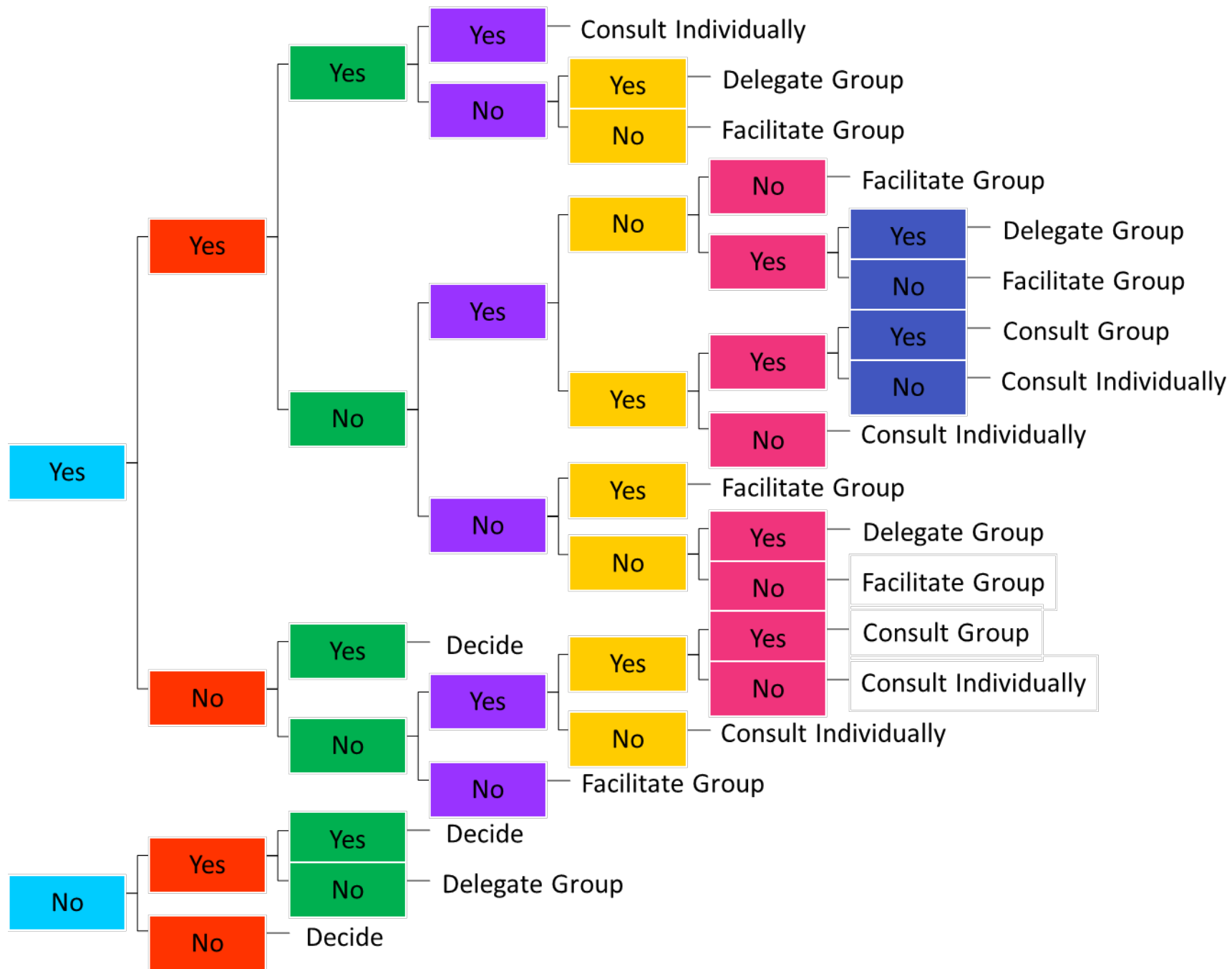
#3 – Do you have enough information to make the decision alone?

#4 – Is the problem structured?

#5 – Would the team support the decision if you made it alone?

#6 – Does the team share the organization's goals?

#7 – Is team conflict over the decision likely?



**How can we
generate
alternative
solutions to the
problem?**



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1. Conduct a benchmarking study



Benchmarking:

To evaluate something by comparison







**Do not expect other
organizations' solutions
to work for your
organization's problem!**

2. Facilitate brainstorming sessions



Brainstorming:

A group technique for generating ideas
whereby individuals share their ideas
without judgment

- **Focus on quantity over quality**
- **Do not judge new ideas**
- **Use a facilitator to guide the discussion and record ideas**





3. Facilitate brainwriting sessions



Brainwriting:

A group technique for generating ideas
whereby individuals write their ideas
privately

3. Facilitate brainwriting sessions





How can we evaluate alternatives and choose a solution?



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Candidate	Evaluation Criteria				Totals
	Practices and Lives OB 10	Has Free Time 6	Liked by Team 6	Attended Events 4	
Candidate A	20	18	12	4	54
Candidate B	30	12	18	12	72
Candidate C	40	6	6	8	60

- **What are the benefits?**
- **What are the challenges?**
- **Who is responsible for implementation?**
- **How might it impact others?**
- **How much would it cost?**



**How can we
implement
and evaluate
the best
solution?**



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Coalitions

Motivation

Participation

Recognition

Goals

Change

Rewards

Empowerment

Feedback

Culture

Persuasion

Vision

Communication



Implementation

- **Involve stakeholders**
- **Break into smaller steps**
- **Celebrate wins**
- **Stop and reevaluate when necessary**

Evaluation

- **Involve stakeholders**
- **Before, during, and after implementation**
- **Continuously and frequently**
- **Use after action reviews (AARs)**



After-action review:

A technique that uses reflection and critical analysis to learn what went well and what could be improved upon



1. What was our objective?



2. What actually happened?



3. Is there a gap?



4. If yes, what might be causing the gap?



5. What should we repeat?



6. What should we do differently?



7. What else is important about this event?

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