

Cultivating a Growth Mindset

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Idea^s





**It's time to
reconfigure your
environment**



**Getting
Hammered!**

Functional Fixedness

- Tendency to see the functions of different objects in the way you usually use them.
- **Blocks** our ability to see its utility for **other purposes**.
- Many problems might require the **problem-solver** to use an object in the solution in an **unusual way**.



SYSTEM 1

Intuition & instinct

95%

Unconscious
Fast
Associative
Automatic pilot

SYSTEM 2

Rational thinking

5%

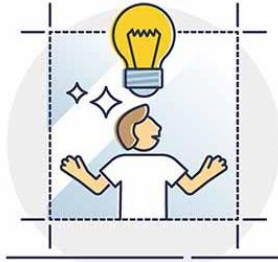
Takes effort
Slow
Logical
Lazy
Indecisive



Source: Daniel Kahneman

<https://www.rogerleishman.com/2017/12/thing1.html>

COGNITIVE BIASES



**CONFIRMATION
BIAS**



**LOSS
AVERSION**



**GAMBLER'S
FALLACY**



**AVAILABILITY
CASCADE**



**FRAMING
EFFECT**



**BANDWAGON
EFFECT**



**DUNNING-KRUGER
EFFECT**



Bounded rationality

- We are constantly making decisions with **insufficient data**, information, abilities and memory.
- We need to **select** which information we should collect and **prioritize it**.
- Our decision process *is bounded by practical, often cognitive, factors* (Simon, 1957).





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How can we get better at solving problems and driving disruptive solutions?



Not doing “business as usual” requires more than conventional thinking...



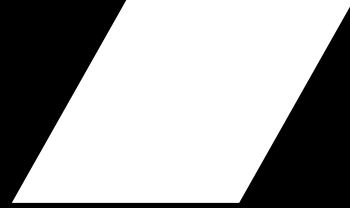
How can we get better at solving problems and driving disruptive solutions?

- Engaging in practices that kick up our System 2 and make us look at problems in a different light.
- Taking a step back to look at the bigger picture.
- Cultivating a **growth mindset**.



Growth mindset

What does growth mindset mean and why is it important?



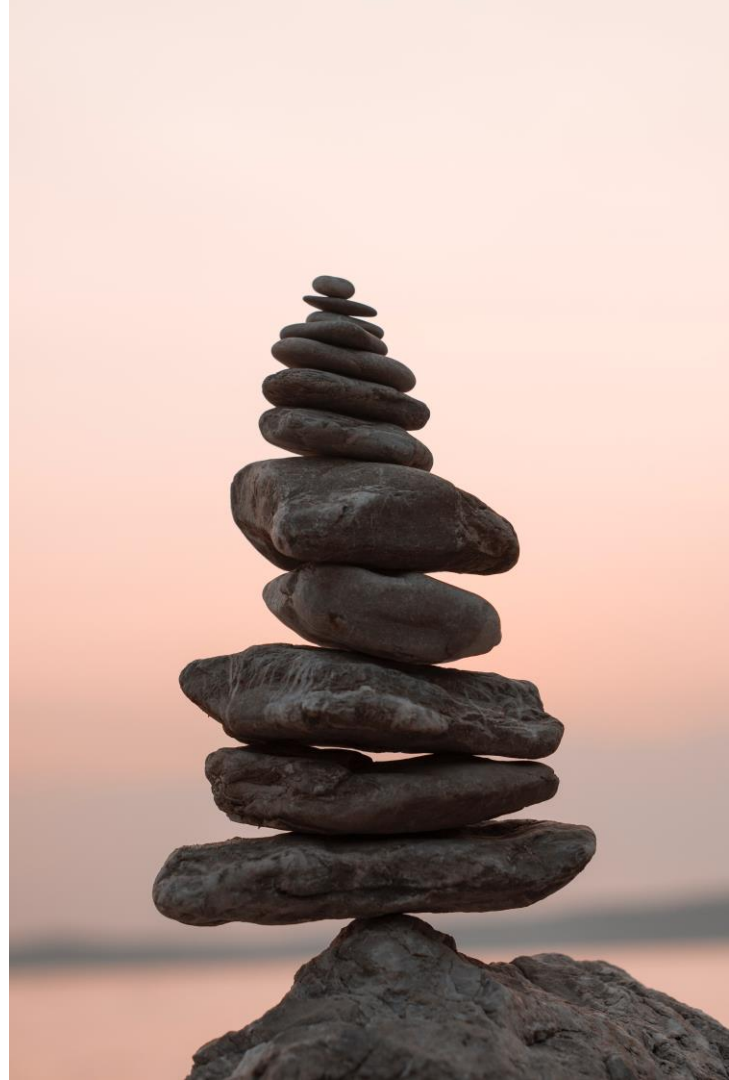
“Mindset change is not about picking up a few pointers here and there. It's about seeing things in a new way.”

Dr. Carol Dweck, *Mindset: The New Psychology of Success*

What does “mindset” mean?

“...a mindset is a set of assumptions, methods, or notions held by one or more people or groups of people.” (Cambridge English Dictionary)

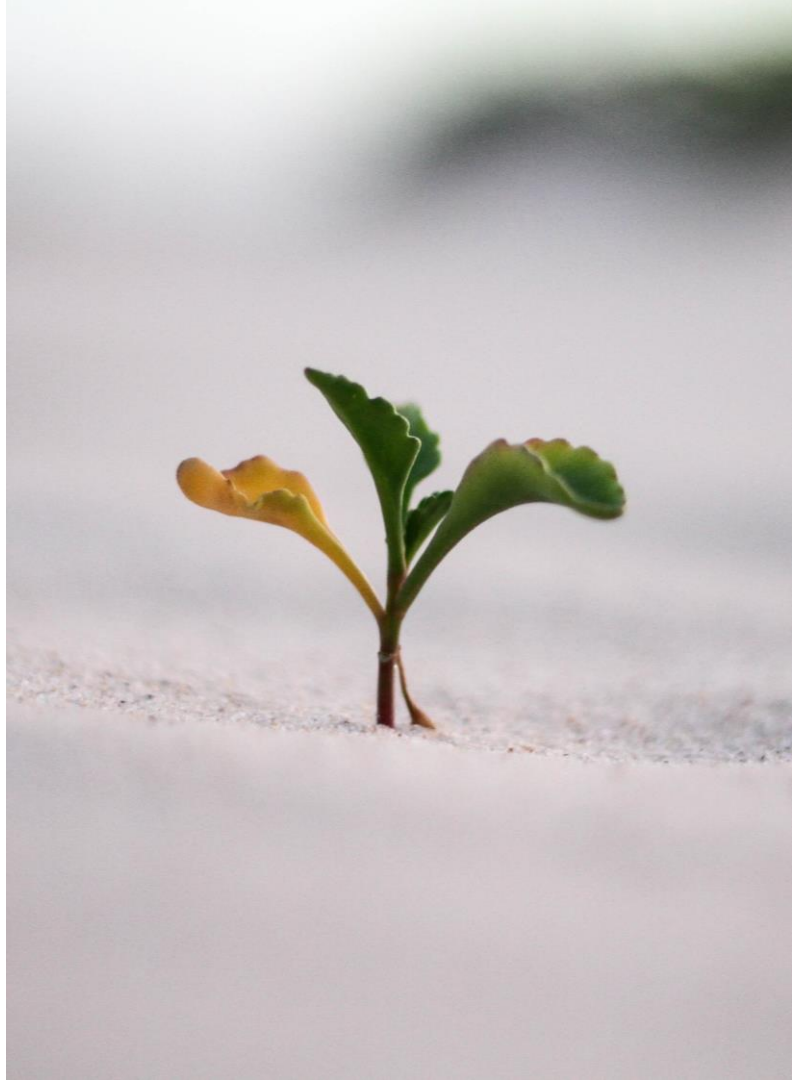
“in cognitive psychology, a mindset represents the cognitive processes activated in response to a given task” (French, 2016)



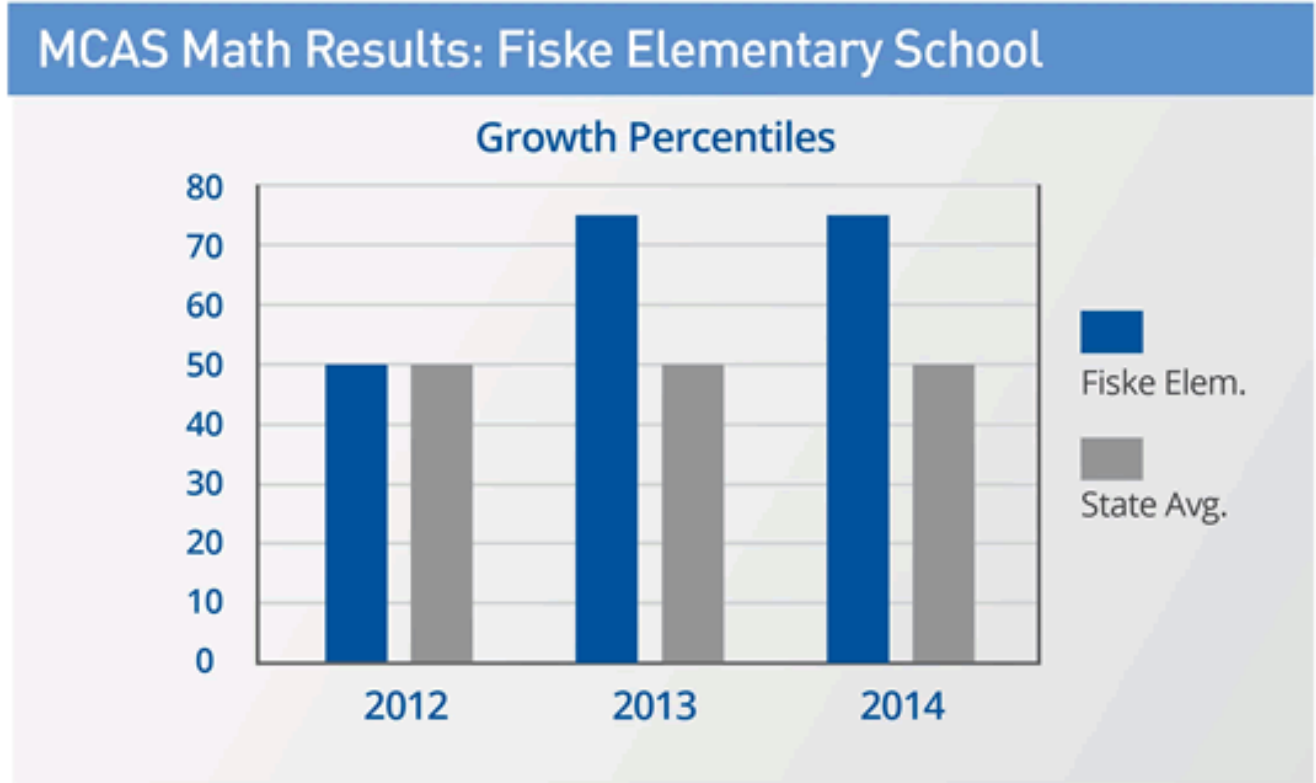
Growth Mindset

“Why waste time proving over and over how great you are, when you could be getting better?”

Photo by [Jeremy Bishop](#) on [Unsplash](#)



Case Study: Fiske Elementary School



**Case Study:
Chicago
High School**







The power of "not yet"



"If you get a failing grade, you think, „I'm nothing, I'm going nowhere." But if you get the grade 'not yet', you understand that you're on a learning curve. It gives you a path into the future."

Dweck, 2014



**2 truths
and
1 “not yet”**

Fixed mindset

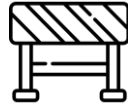


Intelligence is static/
desire to look smart

Avoid
challenges



Give up easily



See effort as
fruitless or
worse



Ignore useful
negative feedback



Feel threatened
by the success of
others



Fixed mindset



Intelligence is static/
desire to look smart

Growth mindset



Intelligence can be
developed/ desire to
learn

Avoid
challenges



Embrace
challenges

Give up easily



Persist in the
face of
setbacks

See effort as
fruitless or
worse



See effort as the
path to mastery

Ignore useful
negative feedback



Learn from
criticism

Feel threatened
by the success of
others



Find lessons and
inspiration in the
success of others



Fixed mindset



Intelligence is static/
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Growth mindset



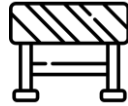
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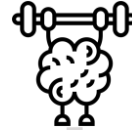
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Lateral Thinking

set of processes & tools
to think creatively



Reframing

taking a new perspective into
a complex problem



Lateral thinking

set of processes & tools to think creatively

Lateral thinking

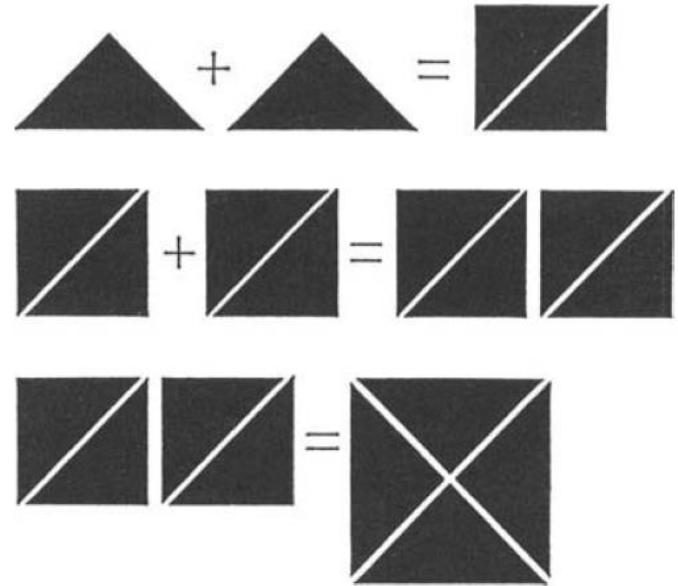


Lateral Thinking



Lateral Thinking

- Vertical thinking is analytical, **lateral thinking is provocative.**
- Approaching problems from an **unusual direction.**
- Often involves **drawing connections from different fields.**
- Set of processes & tools to think **unconventionally.**





Some Methods of Lateral Thinking



- Random Entry Idea Generating Tool
- Provocation Idea Generating Tool
- Movement Techniques
- Challenge
- Concept Formation
- Disproving
- Fractionation



Some Methods of Lateral Thinking



Random Entry Idea Generating Tool

involves picking a random word (usually a noun) or an image and following its associations until you find new ideas that can be applied to your problem.

<https://randomwordgenerator.com/>

Provocation Idea Generating Tool

A statement that we know is wrong or impossible but is used to create new ideas. Provocations can be set up using any of the provocation techniques—wishful thinking, exaggeration, reversal, escape, distortion, or arising.

Some Methods of Lateral Thinking

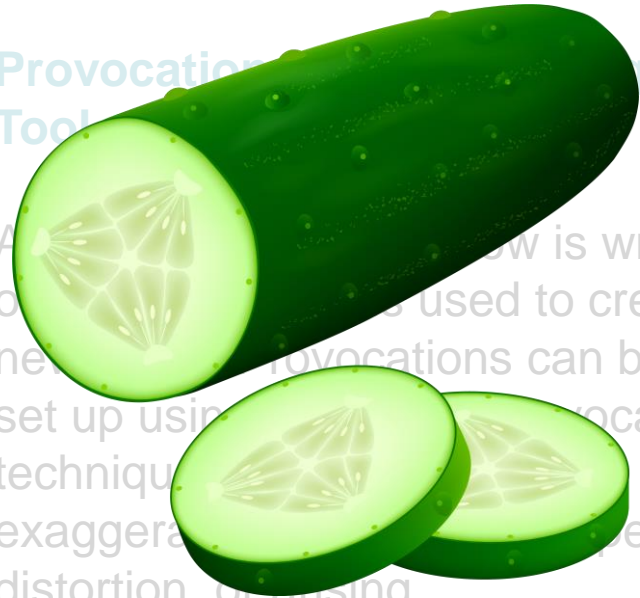
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Provocation Tool

As the name suggests, this tool is wrong on purpose. It is used to create new ideas. Provocations can be set up using various provocation techniques such as exaggeration, distortion, or reversing.





Some Methods of Lateral Thinking





Random Entry Idea Generating Tool

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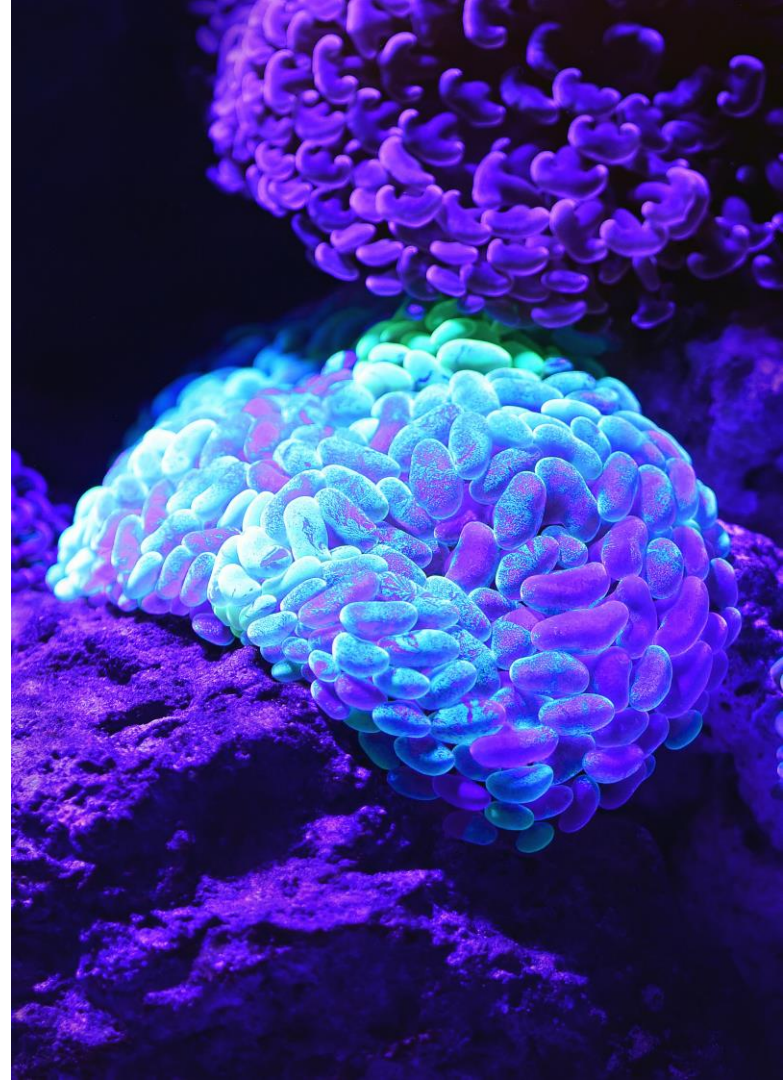


But... I'm not a kid or a teenager anymore... how can
this still be true for me?

Probably what you're thinking right now

Neuroplasticity!

- ability of neural networks in the brain to change through growth and reorganization
 - e.g. circuit and network changes from learning a new ability, environmental influences, practice, and psychological stress
- many aspects of the brain can be altered (or are "plastic") even through adulthood.





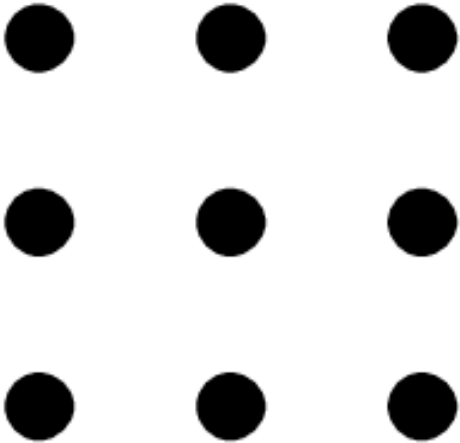
Reframing

taking a new perspective into a complex problem



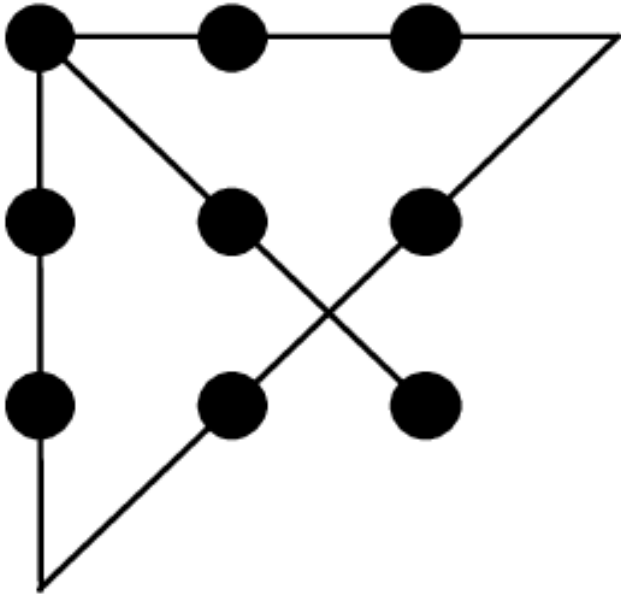


9 Dot Problem



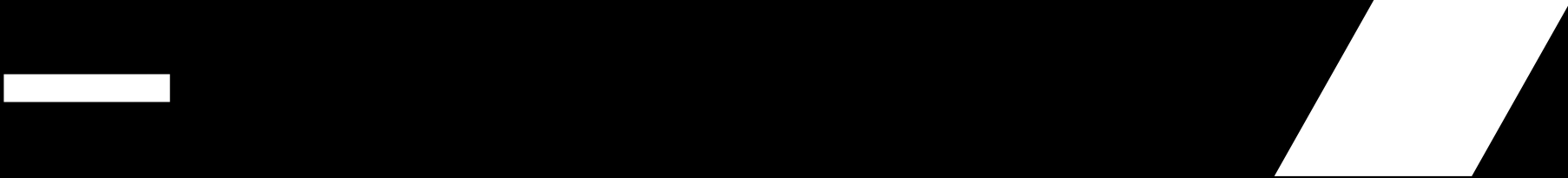
- Connect all 9 dots
- Use only 4 lines
- Don't lift the pen after you start drawing

9 Dot Problem





- To solve it, we need to *literally* think outside the box...


$$5 + 5 = ?$$


$$? + ? = 10$$

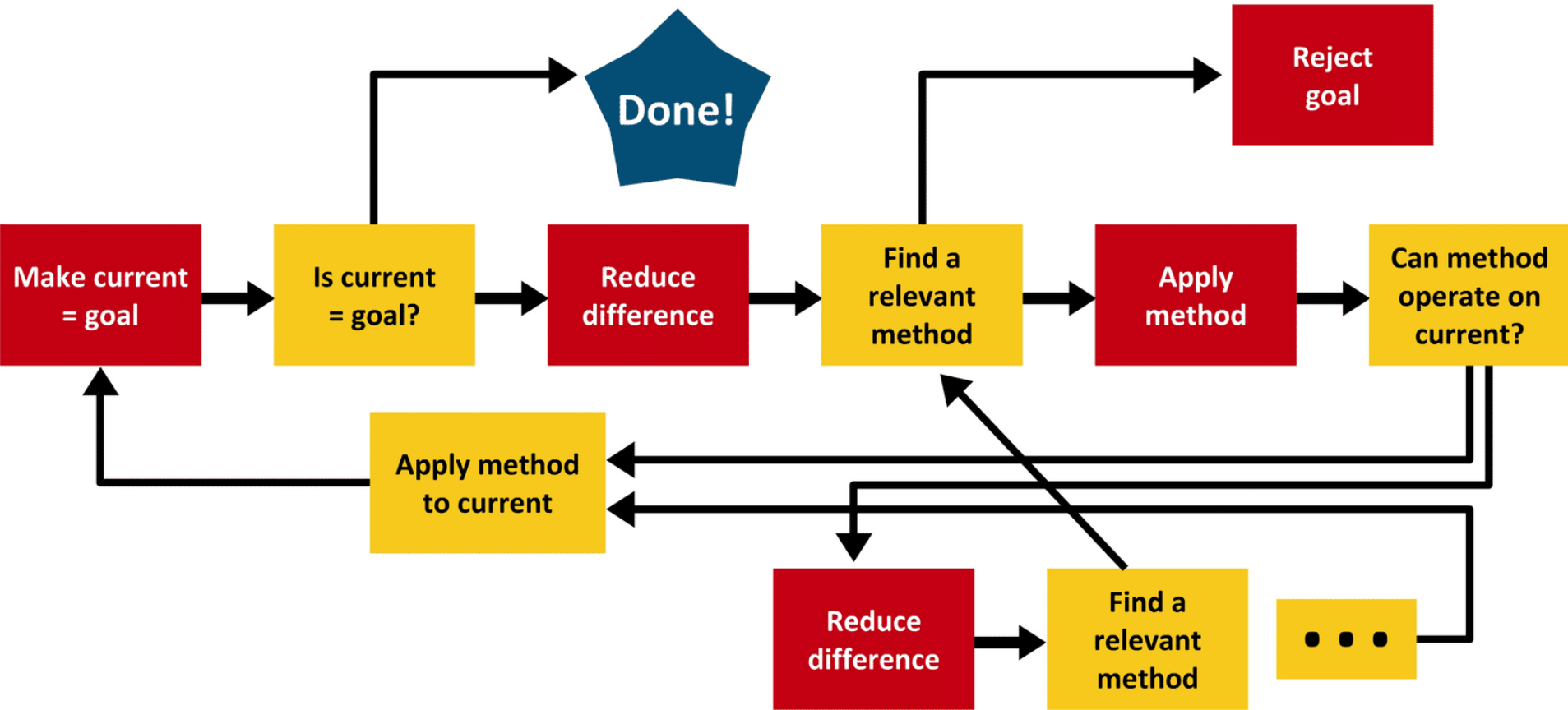


**How to
design a
new
bridge?**

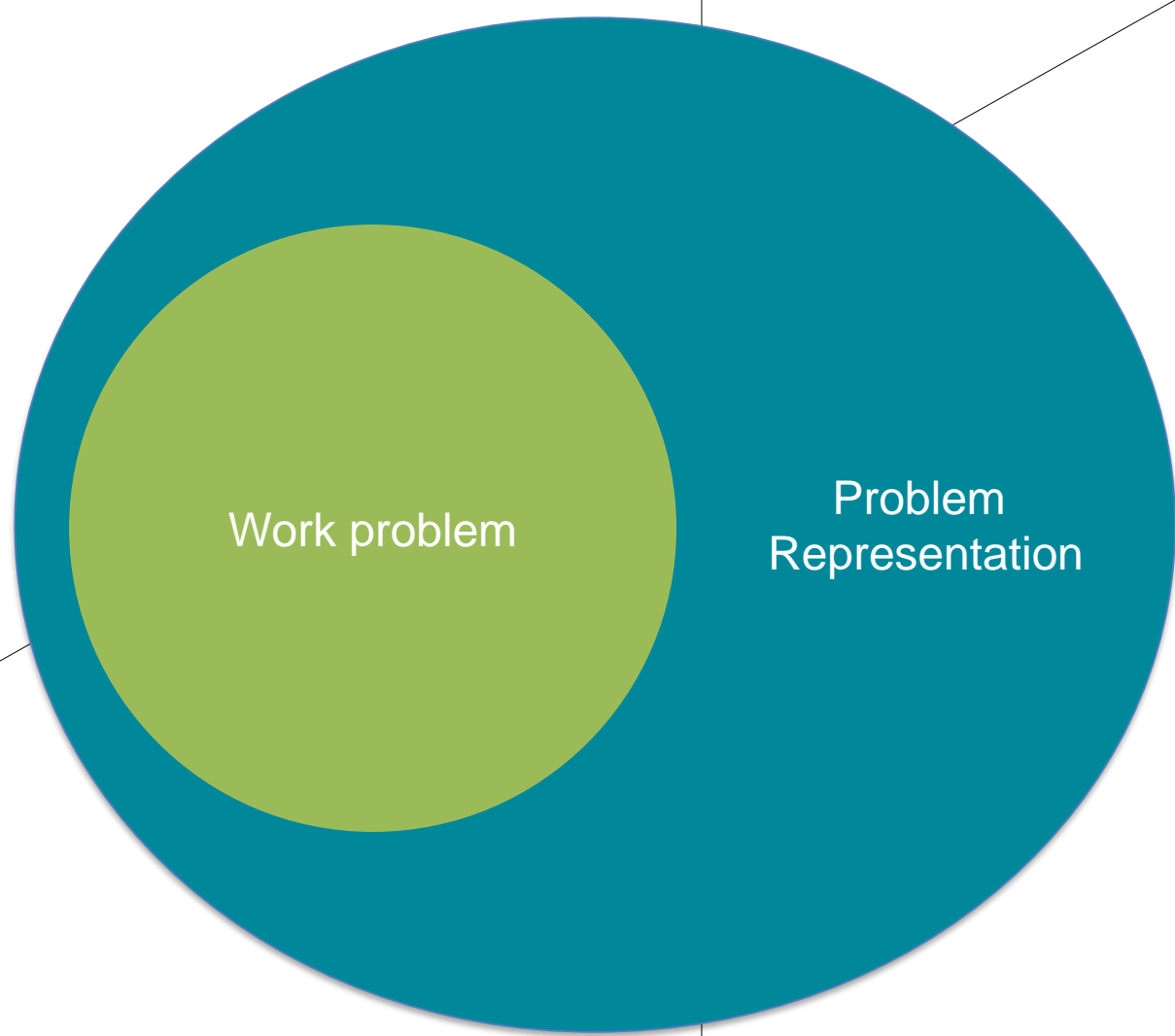


“If I had an hour to solve a problem, I'd spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.”

Albert Einstein



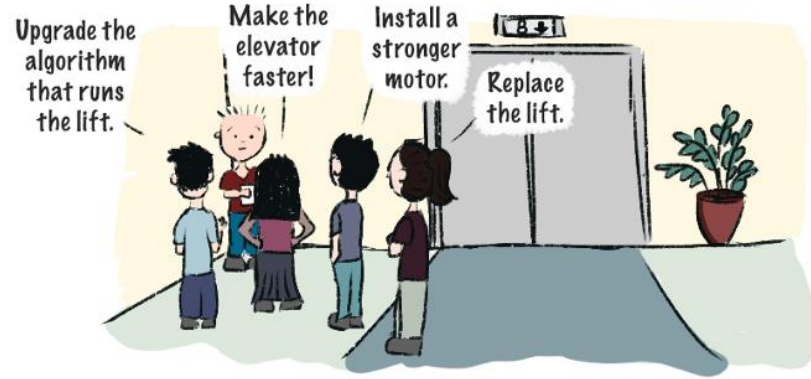
**It is not about
solving the
problem right,
but solving the
right problem!**



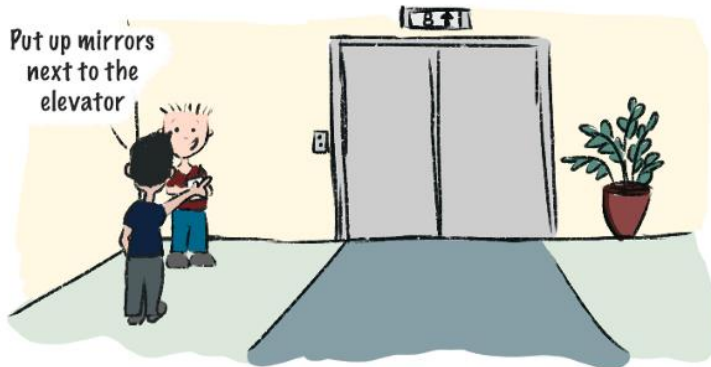
Problem Framing → The elevator is too slow



Solution Space → Make the elevator faster



Reframing the problem → The wait is annoying



Solution Space → Make the wait feel shorter



In summary...

1. Stop and look at the **bigger picture**.
2. Think - how you can **shift your perspective?**
3. **Challenge your mind** –listen to things you disagree with, talk to strangers, cultivate lateral thinking...

Photo by [Raphaël LR](#) on [Unsplash](#)



Sources *(not complete)*

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- French, R. P. II. (2016). The fuzziness of mindsets: Divergent conceptualizations and characterizations of mindset theory and praxis. *International Journal of Organizational Analysis*, 24(4), 673–691. <https://doi.org/10.1108/IJOA-09-2014-0797>
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