

# Growth Mindset

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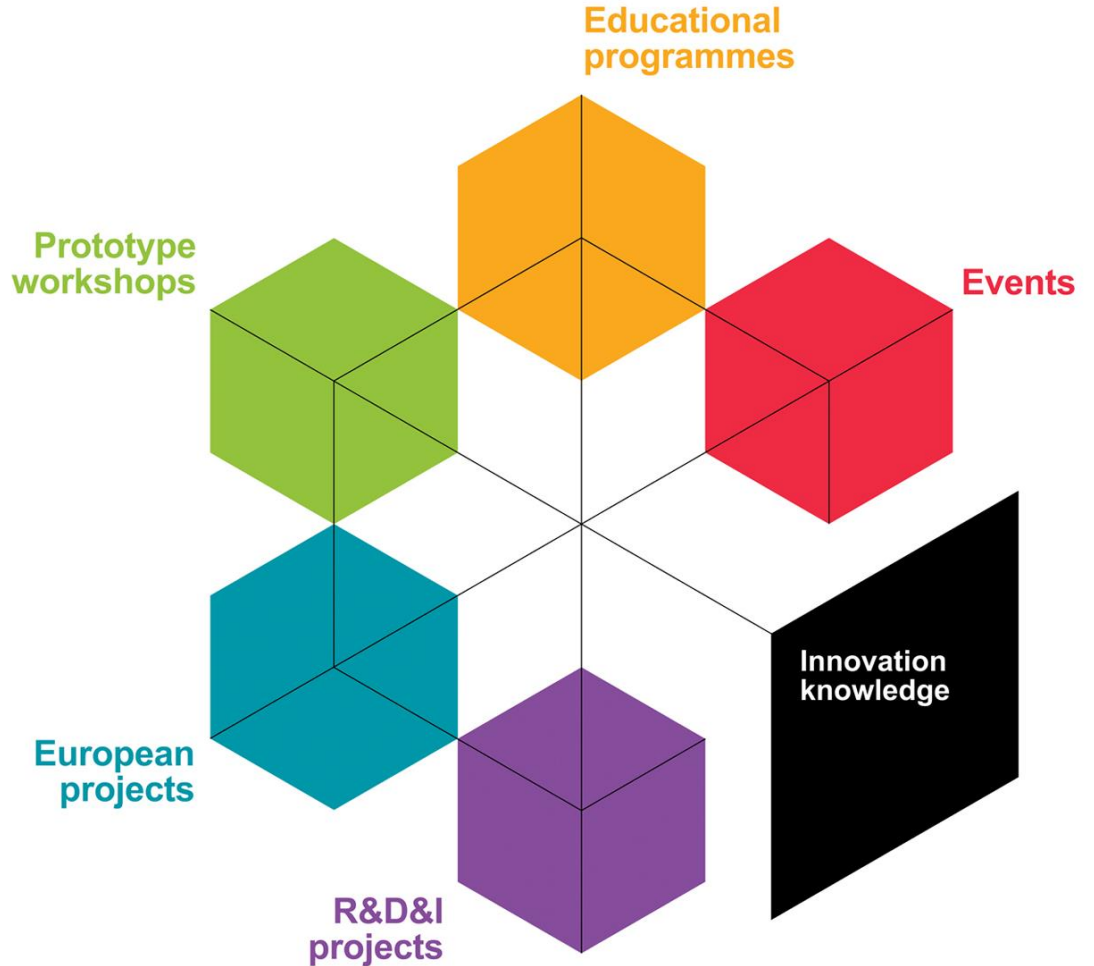
*Idea<sup>s</sup>*



# IdeaSquare

## The Innovation Space at CERN

IdeaSquare is the innovation space at CERN, that uses collaborative methodologies, access to CERN expertise and cross-connectivity to ideate solutions for the future of humankind. A place where people have the licence to dream.





**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%

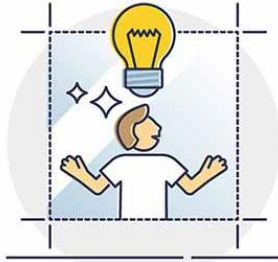
Takes effort  
Slow  
Logical  
Lazy  
Indecisive



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).







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

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



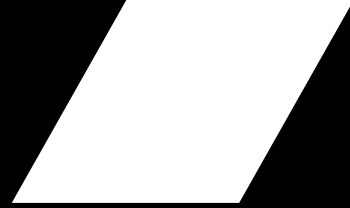
# How can we get better at solving problems and driving disruptive solutions?

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



# Growth mindset

What does growth mindset mean and why is it important?



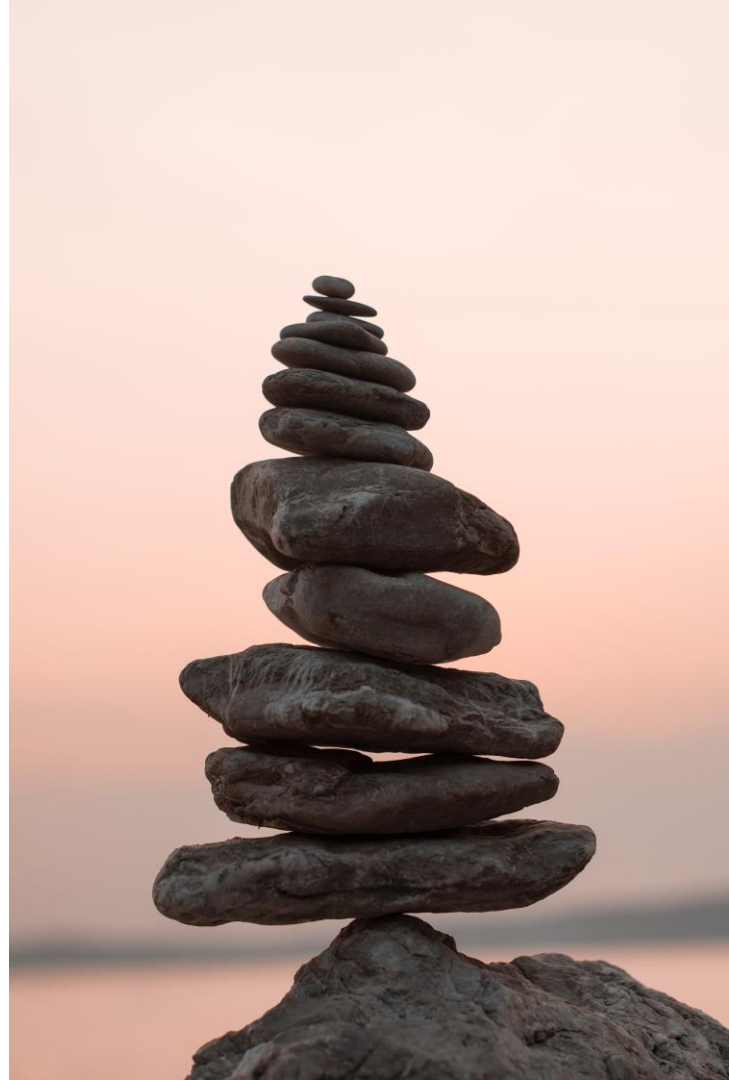
“Mindset change is not about picking up a few pointers here and there. It's about seeing things in a new way.”

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)

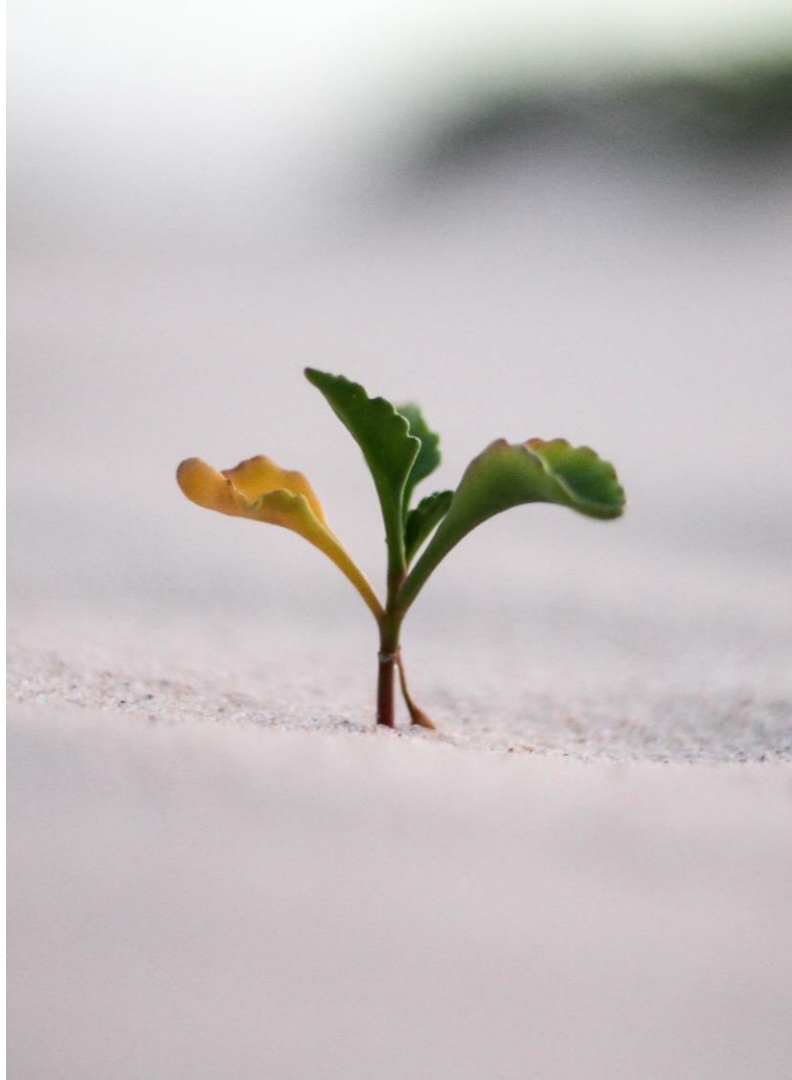




# **Growth Mindset**

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

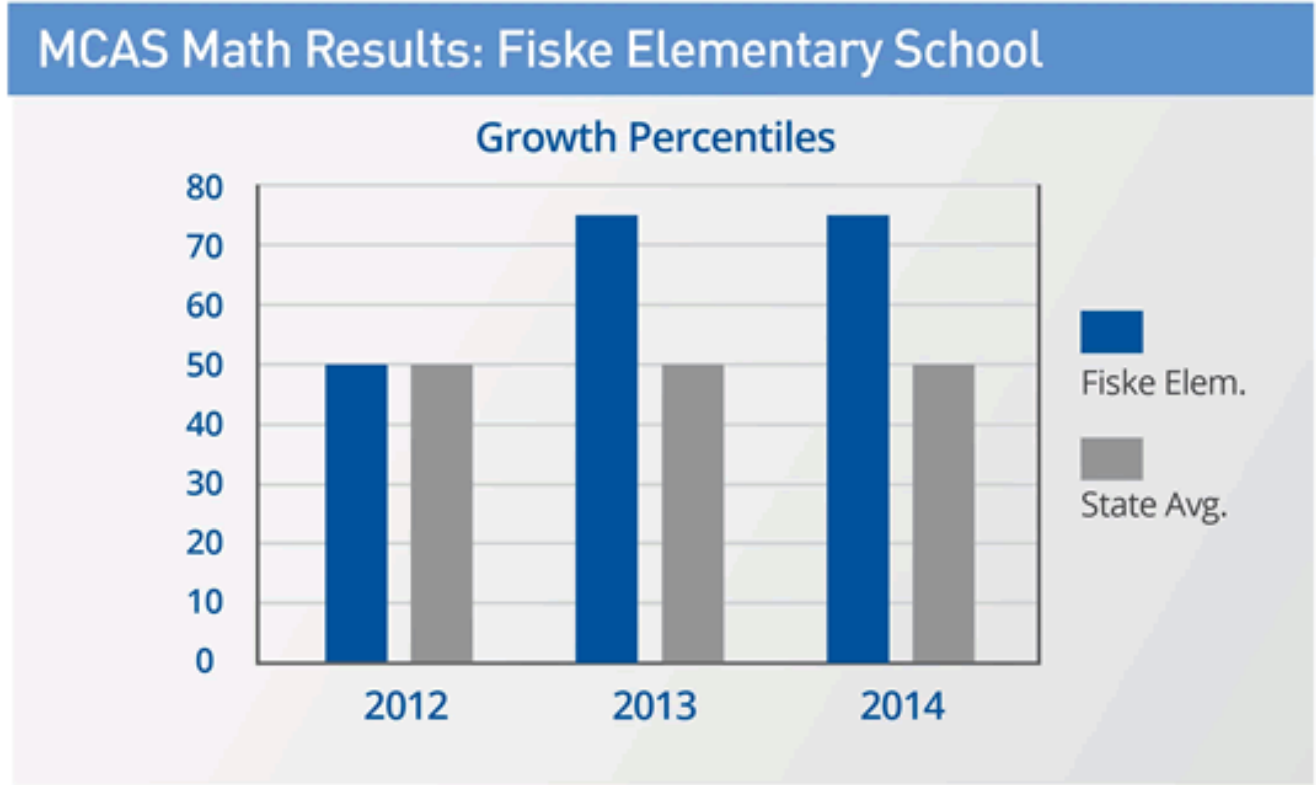
Photo by [Jeremy Bishop](#) on [Unsplash](#)





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

# Case Study: Fiske Elementary School





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**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

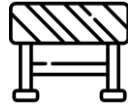


Intelligence is static/  
desire to look smart

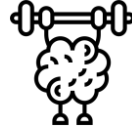
Avoid  
challenges



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



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**Support each other's  
growth journeys**





# Sources



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