Deliberate Practice

The science and practices that lead us to get better

Myths

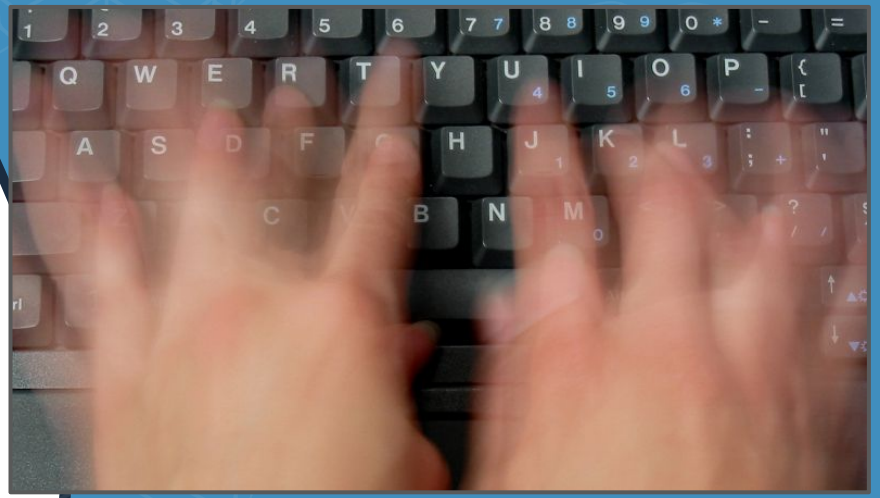
I heard that....

Myths

You get better by doing

How many word per minute do you type?

Why not faster?



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Myths

Practice is only for beginners

Athletes, Doctors, Musicians -
Professionals practice their entire career

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Myths

Practice makes perfect

Practice only reinforces repeated actions.

“Perfect Practice” makes perfect

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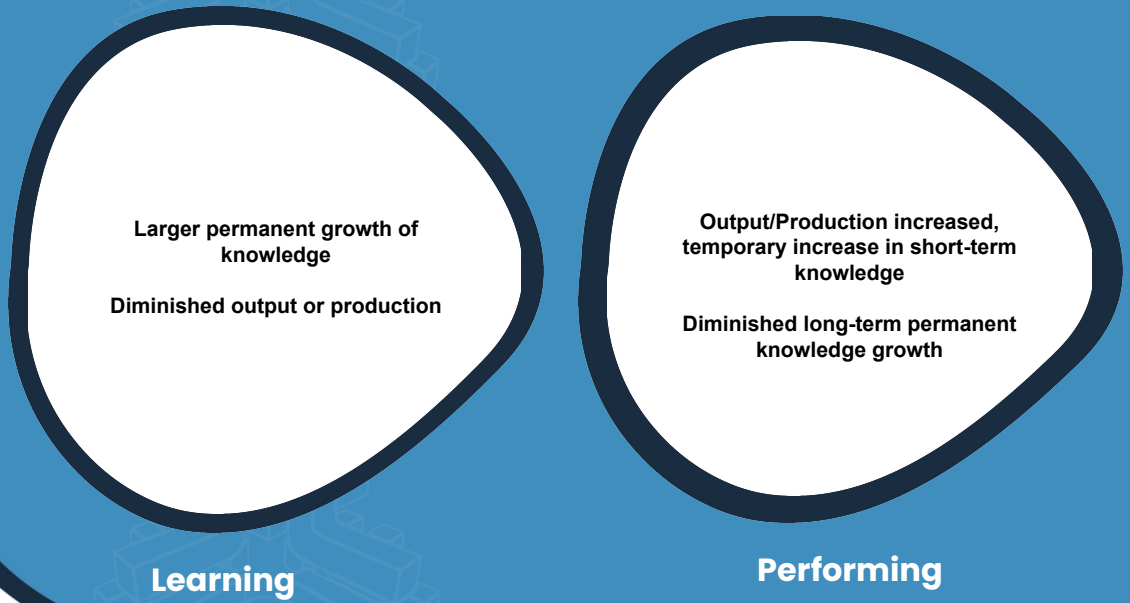
Science

Is it pronounced Data or Data?

Science

Learning-Performance Distinction

Behaviorism stresses the difference between learning a behavior and the actual performance of the behavior.



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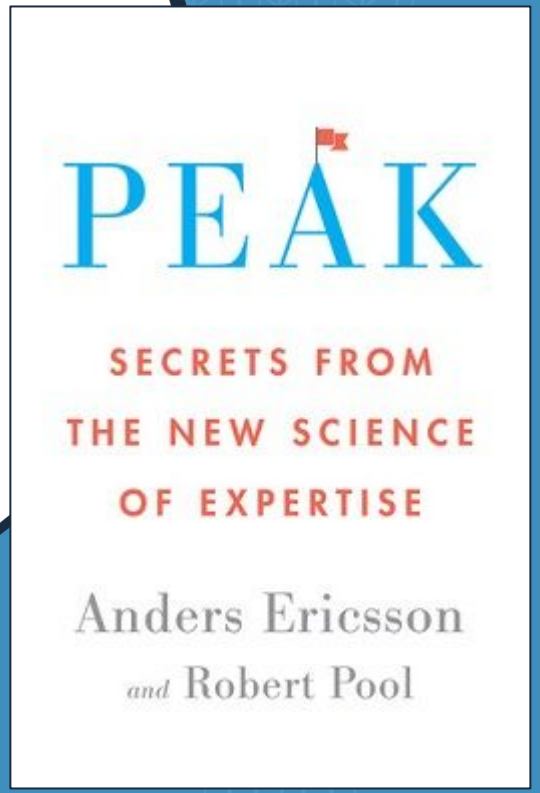
Science

Peak: Secrets from the New Science of Expertise

K. Anders Ericsson



Deliberate practice sets out to study and enlist the principles of the kind of learning that produces strong, refined mental representations.

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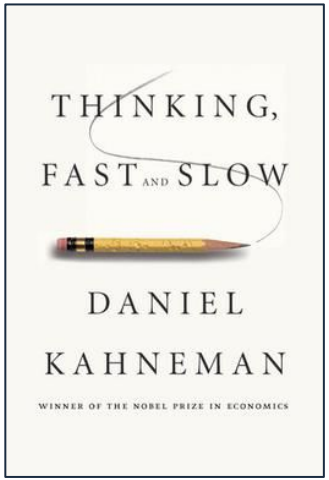
Fast Brain
- Instinctive & Emotional

Slow Brain
- Deliberate & Logical

Science

Thinking Fast and Slow

Daniel Kahneman



Two systems of our brain

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Application

Putting practice into practice

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Application: *Rules of Deliberate Practice*

01

Don't go alone

You need someone that can guide you when needed.

02

Be uncomfortable

You need to practice outside of your comfort zone.

03

Pick one thing

Practice should have a single simple focus.

04

Fast feedback

You need clear and actionable feedback each time you iterate.

05

Failure is an option

Work where you can fail and learn.

06

Want to learn

Without a want, knowledge is not embodied.

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Application: *Rules of Deliberate Practice*

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Application: *Exercises*

01

Code Kata

A simple problem that can be used over and over

02

Code Dojos

Refactor, Refactor, Refactor

03

Sparrow Decks

Relax, Repeat, Relax, Repeat...

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Application: *Rules of Kata*

01

One primary focus

Write down the focus of the kata and stay with it for the practice.

02

Simplest solution

Think “Quick and Dirty”

03

Anything goes

As long as you follow rules 1 & 2, do anything is acceptable.

04

Working software wins

When you prove your code works, you’re done.

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Application: *Code Kata*

Fizz Buzz

The Answer is the Lie.

Gilded Rose

Refactoring Practice… lots of it.

Game of Life

Practice design, collaboration and algorithmic strategies.

Application: *Sparrow Decks*

Relaxed repetition visualizing code smells

Created by **Llewellyn Falco**
http://llewellynfalco.blogspot.com/p/sparrow-decks.html

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Application

Pitfalls and Anti-Patterns

Don’t fall into the traps

Practicing Solutions

Done It!

HiPPo

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Outcomes

Outcomes over Outputs

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Outcomes: *Code*

Software Quality

Code quality increases
Defects decrease

Emergence of Team Knowledge

"Rising Tide floats all boats"

Better Code Understanding

Scannability increases
Better Strategies

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Outcomes: *Teams*

Personal Growth

You become a better developer

Team Cohesion

Learning together makes stronger connections

Increased Productivity

Growth of Team
Growth of Knowledge
Job Satisfaction

Enjoyment of Work

Camaraderie of learning together
Motivation 3.0: Mastery

Psychological Safety

It's okay to say "I don't know"

Thank You

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Resources

Paige Watson
paige@industriallogic.com

Twitter: @PaigeIsXP

Mastodon:
https://techhub.social/@paigewatson

LinkedIn:
https://www.linkedin.com/in/paige-watson-b817564/

Resources Link

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