



DEV ACADEMY
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Learning

Week 1, Day 2





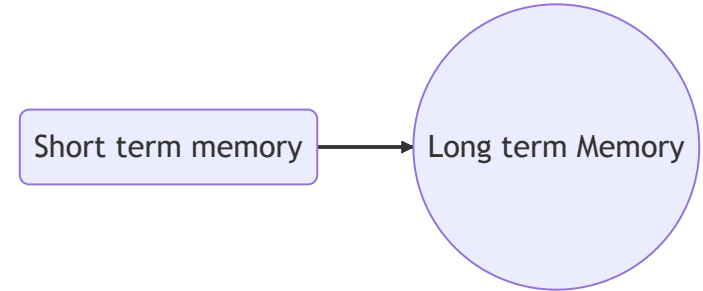
Agenda

- Memory, recognition and recall
- Metaphors and mnemonics
- Illusion of mastery

Memory, recognition and recall

What we know about memory and related cognitive tasks:

- Working memory is small. Long term memory is large.
- People can hold 3-4 new pieces of information in working memory.
- To remember information in the long term it must be *encoded*.
- Certain techniques improve encoding:
 - *Elaborative encoding*
 - *Self-reference effect*
 - *Spaced effect*
 - *Consolidation* with sleep
- *Effortful recall* helps us retain information.
- *Context dependent learning* can further helps us recall information.



Further reading:

- Mind Limit
- Long term memory encoding and storage
- About Sleep's Role in Memory



Metaphors and mnemonics

Association is powerful!

- Value vs reference?
 - Pass by value is like giving you my phone number. Pass by reference is like giving you my phone and hoping you don't break it.
- How do we remember the colours of the rainbow?
 - You might use ROYGBIV
- What about the number of days in a month?

Illusion of mastery

Recognition and recall are different cognitive tasks

- Recognising is a simpler cognitive task than doing in practice.
 - E.g. investing in stocks: Walt Disney Co
 - Recognising a graph is easy. Picking whether to buy or sell right now is hard.
- Coding vs re-watching lectures
 - Effortful recall is more valuable than recognition

