Critical thinking

⚠ Critical thinking process

- evaluate the cause
- consider the consequences

⚠ In order to solve problems, we must break down them into small ones

⚠ A problem statement defines project success

- outline goals
- map boundaries
- define success
- acknowledge constraints
- articulate assumptions
- identify stakeholders
- establish timelines

⚠ understanding the real question

- avoid solving symptoms
- create valuable recommendation

⚠ Ask focusing questions

- what's the real question?
- who are the stakeholders?
- How will we measure success?
- what's the scope?
- what are the constraints?

⚠ How to consider past efforts

- was this problem addressed before?
- what's now different vs. then?
- were there challenges last time?
- what assumptions are limiting us?
- who was involved last time?

⚠ How to use new lenses to think critically?

- change the point of view
- change the context
- change the reality

⚠ Understanding root causes & then the effects of your recommendation is going to help you solve the real problem & avoid unintended consequences

⚠ challenge how the business operates

- Business model blow up
  - How do you reconsider your market & strategy?
- Revenue blow up
  - How do you expand your products, pricing, geography, and reach?
- cost blowup
  - How do you eliminate drag to become more efficient?

⚠ Asking "5 whys" will lead you to insight

real problem ←

⚠ The seven "so whats"

↳ A thinking tool that reveals the consequences of an action

⚠ what is 80-20 rule

↳ 20% input ~ 80% result

↳ major drivers of impact

⚠ How to successfuly conduct analysis?

- high road
  - what am I proving or disproving?
  - will it be beneficial?
  - will it have impact?
- Low road
  - only run the numbers you need
  - get in & get out of the data
  - "Do NOT polish dirt"

⚠ Look for links between problems to discover solutions

⚠ How to teach others to think critically

- teach the tools
- create opportunities for practice
- coach the team
- hold them accountable

⚠ Common pitfalls when solving problems

- jumping to answers so quickly
- being unwilling to expand the problem space
- focusing on the unimportant
- accepting the results at face value
- Not thinking through consequences