2. Critical Thinking

Quiz 1

1. During the critical thinking process what's the first thing you should consider?

- schedule

  Consequences

  Cause

- stakeholder goals

2. You start on a new project that seems very similar to previous work you've done. You immediately dive in and proceed as you have done before. Why is your bold start probably a mistake?

- You should first build a budget.
- You should first build a team.
- You should wait for a go-ahead from your supervisors.
  You should take time to think critically about the scope of the project.

3. When do you know that you have broken down a problem sufficiently?

- when it is impossible to break down the problem further

- **when solutions begin to become obvious**

- when the problem divisions become symmetric
- when the problem parts match the number of team members

4. What's the recommended strategy for dealing with a complex problem that has no obvious solution?

- Assign parts of the problem to each person on your team.
- List out the consequences, then analyze the cause for each one.
- Throw in the towel and go out for a double latte.

- **Break the problem down into smaller, more solvable pieces.**

5. Your team has completed writing recommendations for solving a major problem in your business unit. How can you make implementation go smoothly?

   by anticipating unintended consequences

- by consulting with senior management

  by implementing the plans as quickly as possible

  by making implementation optional

6. Why do people tend to rush off and start solving the problem without understanding causes and consequences first?

- It allows them to reverse engineer the causes.

  It makes them feel like they're being responsive to stakeholders.

  They know that causes and consequences get figured out at the end.

  They can avoid getting get tasked with solving additional problems.

Quiz 2

Question 1 of 9

Looking at prior efforts on a problem can help you understand previous limitations and gain ___ that can be applied the next time around.

- **institutional knowledge**
- stakeholder support
- root causes
- budget dollars

Question 2 of 9

Which question is least focusing?

- **Where do you see this sort of effort leading in the next decade?**
- Which departments need to be excluded from the project?
- Who directly benefits the most from the project?
- Who is responsible for approving the project budget?

Question 3 of 9

Focusing questions help you ___ a problem space.

- **bound**
- avoid
- solve
- share

Question 4 of 9

You've received a concise request for a short, simple project from a colleague in another department. Why should you talk with the stakeholder in more detail?

- to develop rapport
- **to better define the problem**
- to scale back the scope of the effort
- to recruit team members

Question 5 of 9

Causality involves digging down to uncover root causes as well as considering the ___ of potential solutions.

- timing
- costs
- scope
- **consequences**

Question 6 of 9

What are the main consequences of inadequately defining a problem?

- faster startup and implementation
- a concise and compact solution

- broad impact and increased visibility
- **wasted effort and an inappropriate solution**

Question 7 of 9

Your manager asks you to examine a new operational problem from the point of view of a customer. You are not clear on where to begin. How can you make a quick start on this task?

- by engaging in role playing
- by consulting with the customer relations department
- by studying customers' past behaviors
- **by interviewing a few customers**

Question 8 of 9

When you change ____ you typically look at the problem from a different functional perspective.

- **context**
- reality
- jobs
- point of view

Question 9 of 9

Your team is being asked to revisit a project that they completed three years ago. Which question should they address to clarify the problem definition?

- Can we get away with just a small tweak to the project?
- **What circumstances have changed since three years ago?**
- What was the budget last time?
- Was the project satisfactorily completed last time?

Quiz 3

Question 1 of 6

When performing detailed analyses, why should you view the situation from a broad perspective, or the high road, periodically?

- to recuperate from tedium
- to test the validity of data sources
- to check for inconsistencies in assumptions
- **to assess whether the detailed analysis is appropriate**

Question 2 of 6

Your colleague advocates for solving the easiest problems first. You advocate applying the 80/20 rule. When would your approaches agree?

- when the number of problems is overwhelming
- **when the easy problems have major impacts**
- when the easy problems are inconsequential
- when the major problems are very complex

Question 3 of 6

Why is it beneficial to repeatedly ask, "So what?"

- It is easiest to think in small steps.
- People often answer with trivial or obvious explanations.
- The first answers may not yield the ultimate consequences.
- **all of these answers**

Question 4 of 6

Why is asking repeated "whys" useful?

- It challenges those that use only a superficial understanding of the issues.
- It is systematic and requires little imagination.
- It permits a big payoff with little effort.
- **It enables you to get to root causes and a basic understanding of the true problem.**

Question 5 of 6

Metaphorically, the process of asking "why" five times is like what?

- (•) **peeling an onion to the core**
- ( ) dicing a large cauliflower into smaller florets
- ( ) zesting an orange to produce a new spice
- ( ) cooking a broth to blend the flavors

Question 6 of 6

Challenging how the business runs means to ___.

- (•) **imagine a redesign free from present constraints**
- ( ) expand markets and reconsider pricing
- ( ) cut costs by 30 percent
- ( ) replace all management

Quiz 4

Question 1 of 1

You present your boss with an analysis and recommended actions for the employee retention program. Your boss asks what might happen in six months if you make these changes. You don't have an answer so your boss sends you away. What have you forgotten?

- ( ) to look for similarities to unrelated projects
- ( ) to prepare an executive summary
- (•) **to examine the consequences of your analysis**
- ( ) to ask the five whys

Exam

Question 1 of 12
Vilfredo Pareto, the author of the 80/20 rule, observed this rule to be in effect in both **_ *and* _**.

fishing; the stock market
real estate; gardening
gardening; spelunking
eating; blinking

real estate; gardening

Question 2 of 12
You have a very efficient and reliable team member on your team, but they are infamous for treating symptoms rather than root causes. What is the likely outcome of using their quick assistance?

Their output will be undocumented and unreliable.
The team may be provoked into disagreement.
The project will be reliable for years to come.
Any fix provided will be short-lived.

Any fix provided will be short-lived.

Question 3 of 12
What's the most productive way to apply the 80/20 principle to critical thinking?

Focus on the efforts that impact 20% of the results.
Spend 80% of your effort analyzing causes, and 20% analyzing consequences.
Focus on the 20% of efforts that impact 80% of the results.
20% of your efforts are unnecessary and should be cut.

Focus on the 20% of efforts that impact 80% of the results.

Question 4 of 12
You have a team member who is a bit inflexible; they are prone to doing their job without much reflection and they do not like change. Which pitfalls likely impact their critical thinking?

being unwilling to change the problem space, and failing to consider implications
failing to consider similar situations in unrelated areas, and not understanding the fundamental causes
focusing on things that do not matter, and not using the 80/20 rule
jumping to answers too quickly, and not teaching others their methods

being unwilling to change the problem space, and failing to consider implications

---

Question 5 of 12
Defining a clear problem statement can help you avoid this common pitfall.

focusing on the unimportant
jumping to answers too quickly
not thinking of future consequences
generating weak hypotheses

jumping to answers too quickly

Question 6 of 12
What does a problem statement define, overall?

what success for the project looks like
what role each stakeholder will take
the tasks involved in solving the problem
the symptoms of the problem

what success for the project looks like

Question 7 of 12
Three different lenses for thinking critically are to change your _, to change the context, or to change the reality of the problem space.

point of view
objectives
project statement
feelings

point of view

Question 8 of 12
The "7 So What's" are a critical tool for analyzing _.

consequences of recommendations
causes underlying problems
probability of milestones
roots of origin

consequences of recommendations

Question 9 of 12
If you want to improve your team's critical thinking skills you'll need to introduce them to the tools, give them opportunities to practice, coach them along the way, and _.

encourage them to rate each other's work
hold them accountable when they don't apply the methods
teach them to believe in themselves
reward the best performing team member

hold them accountable when they don't apply the methods

Question 10 of 12
You just completed your analysis for a project and have your initial recommendation completed. After validating your results, what is the best next step you should take?

submit the results of the project to your manager for review
implement your ideas immediately
compare your results with other unrelated projects to see if new insights emerge
make sure your results are plausible

compare your results with other unrelated projects to see if new insights emerge

---

Question 11 of 12
Comparing the solutions from _ can improve your analysis and lead to the discovery of new kinds of solutions.

high-level projects
successful projects
unauthorized projects
unrelated projects

unrelated projects

Question 12 of 12
What is the best tool for getting to a problem's root cause?

the 7 So What's
the 3 How's
the 5 Forces
the 5 Why's

the 5 Why's