



Class 3

Critical Thinking

Ground Rules

Observe the following rules to ensure a supportive, inclusive, and engaging classes



Give full attention
in class



Mute your microphone
when you're not talking



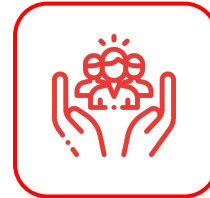
Keep your
camera on



Turn on the CC Feature
on Meet



Use raise hand or chat
to ask questions



Make this room a safe place
to learn and share

Learning Objectives

- 01.** Understand the importance of critical thinking as a basis for effective problem solving
- 02.** Utilize tools and frameworks to define problem statement and root causes



Everything we hear is an opinion, not a fact;
everything we see is a perspective, not the truth.

- **Roman Emperor Marcus Aurelius The Philosopher** -

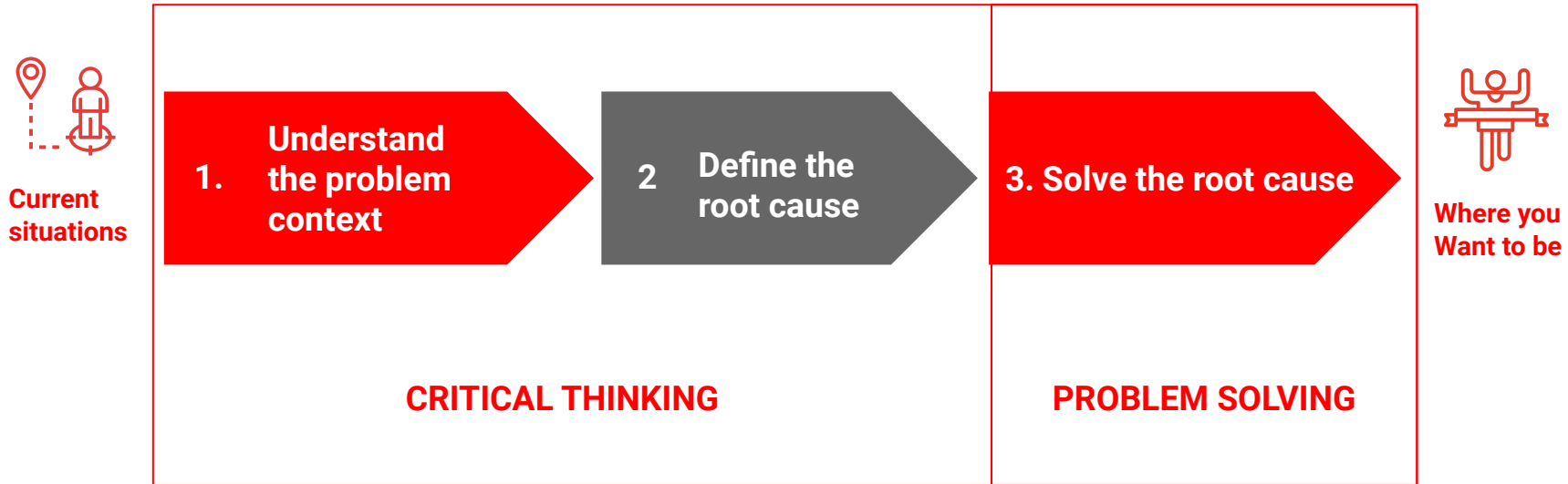
What does it mean to be a **critical thinker**?

Duration: 3 minutes

Let's take a look at your understanding about Critical Thinking by giving your answer on Whiteboard.

The Framework for an **Effective Critical Thinking**

Having understood the importance of critical thinking, in this module, we will focus on how we can use critical thinking as part of **problem solving**. The following is a framework to solve the problem effectively.



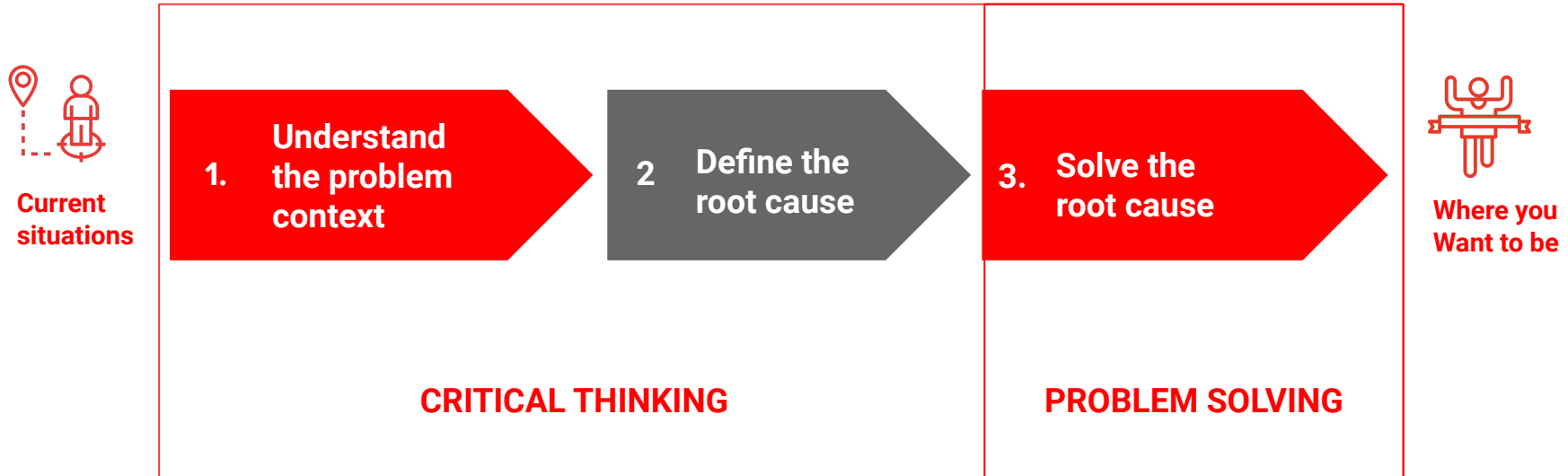
Poor solutions might
happen to **anyone** and
any business

What does the video tell us?

Volunteer to share your thoughts.

The Framework for an **Effective Critical Thinking**

Do you realize that when people are challenged to solve an unpleasant situation, we tend to **jump straight ahead to Step 3 - Offering Solutions?**





Quick Discussion

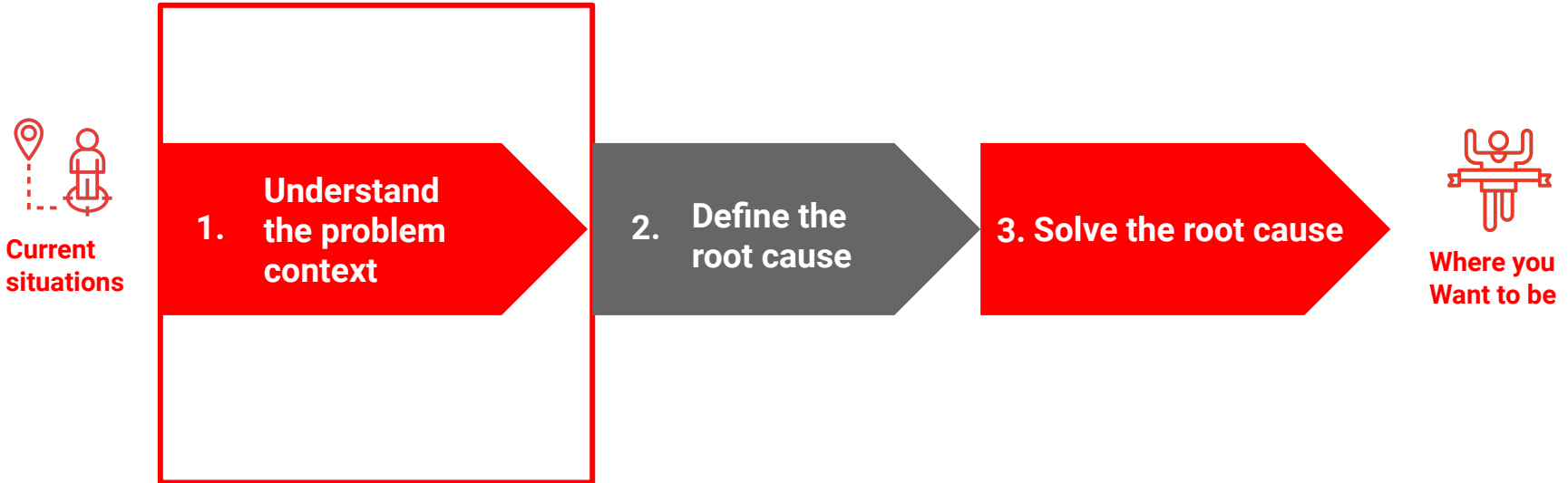
Imagine

1. Patient visits a doctor
2. Patient says he got a serious headache
3. Doctor asks patient several questions and examines directly; turns out the area the patient also feel painful is on the upper abdomen
4. Doctor asks the patient about the food and drink that was consumed in the past 24 hours. It turned out that the patient ate irregularly in the past 2 weeks due to work reason.
5. Doctor diagnosed patient with serious gastritis. He prescribed a medicine for gastric pains and urged the patient to eat on time to prevent this from happening again.

What if the doctor bypassed step 3 and 4?

Drop your name in the Chat Box or unmute yourselves to share your thoughts.

The Framework for an **Effective Critical Thinking**



Understand the **problem context**

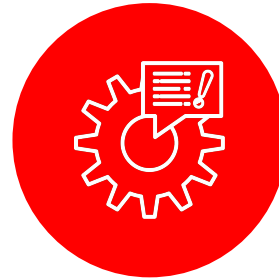
Problem Definition Workflow



WHO



SITUATION



COMPLICATION



and then prepare the
**PROBLEM
STATEMENT**



Class Exercise

Duration: 15 minutes

The scenario:

An e-commerce company, ABC, received target to double the revenue this year. In order to achieve that, earlier this year, the company had launched a “flash sale” feature to penetrate new market segment. It worked very well in the first 3 months, where the feature successfully captured the targeted market and enjoyed double-digit growth in revenue.

Unfortunately, in the 4th month since the new feature is launched, the competitor, XYZ, launched similar flash sale feature, but in gamified format. The e-commerce company conducted a survey to their users, where the respondents felt that the flash sale was great and exciting, but they frequently compared it to its competitors because of the gamification feature. In the fourth and fifth month the actual sales dropped by 5% per month compared to the first three month.

Instruction:

Your task is to **define the problem statement with the Problem Definition Workflow**

(Who-Situation-Complication-Problem Statement).

Write down the problem statement on your personal notebook. You have 15 minutes to complete the task.

Exercise

Sample Answer:



WHO:

- Product owner, product user, business team, competitor



SITUATION:

- An e-commerce made a target to double its revenue this year
- The newly launched feature was successful for the first 3 months
- E-commerce ABC doubled its revenue for the first 3 months after the new flash sales launched



COMPLICATION:

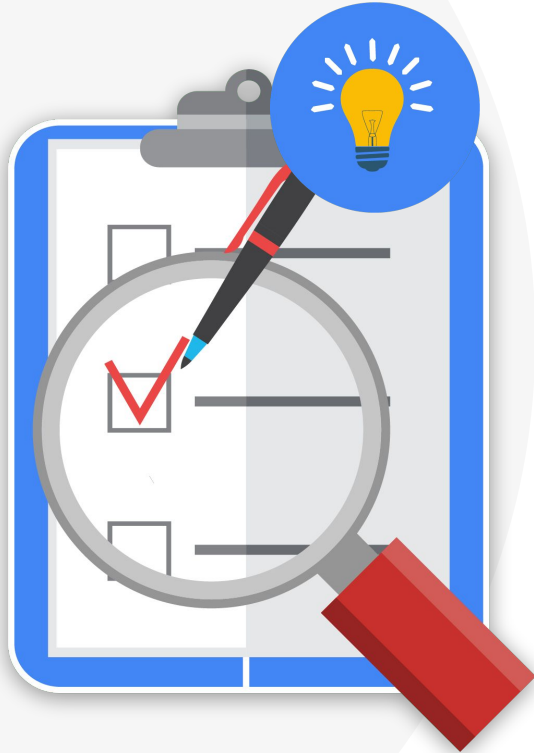
- The revenue figure dropped by 5% in the fourth and fifth month
- Its competitor has launched an enhanced flash sales feature that was more attractive to the user
- Users agreed that the competitors' flash sale is more attractive because it had an additional feature



PROBLEM STATEMENT:

- How can we ensure that the competitor will not be able to easily copy the features that we launch in the future? [This is not relevant]
- How does e-commerce ABC launch a more enhanced flash sales feature? [Too specific]
- How can e-commerce ABC achieve its revenue target in this year? [Too broad]
- What should e-commerce ABC do to regain its market segment to get back on track for double growth revenue and make sure that the solution is not easily replicable by the competitor [Not focused]
- What should e-commerce ABC do to regain the market segment needed to get back on track for double growth revenue? [This is correct]

Determining a **Good Problem Statement**



A good problem statement should:

- Be relevant to the **who** is involved, the **objective situation** that is happening and **complication** that is caused by the situation
- Not be **too broad** and **vague**
- Not be **too narrow**
- Should only concentrate on addressing **one single question**



How You Can Understand The Problem Context Better

Here are some tips to understand the problem context better:

1. Don't look only at the tip of the iceberg and directly jump into solutions
2. Don't continue any of your assumptions with no strong data/evidence
3. Hesitate to critique and to avoid arguments
4. Over-reliance on feelings or emotions
5. Selective perception or confirmation bias

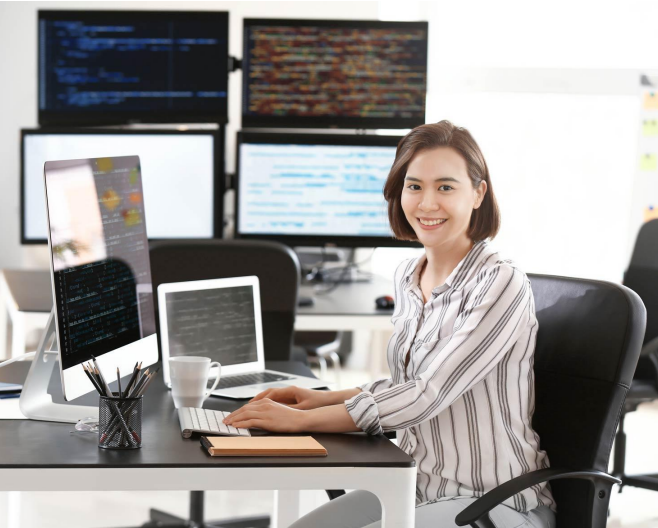
Further Methodology to Understand the Problem Context Better

There is other option that **you can explore to understand the problem context better** when you don't have sufficient data, which is:

Open Ended Interview



Example of Open-Ended Interview Questions



To illustrate, Siska is a product manager working to improve a B2B company's internal processes. She was assigned to improve the current Customer Relationship Management product for the company's sales division. The sales' team responsibility is to provide the customer data to the marketing team, so the latter knows the performance of the leads they are nurturing.

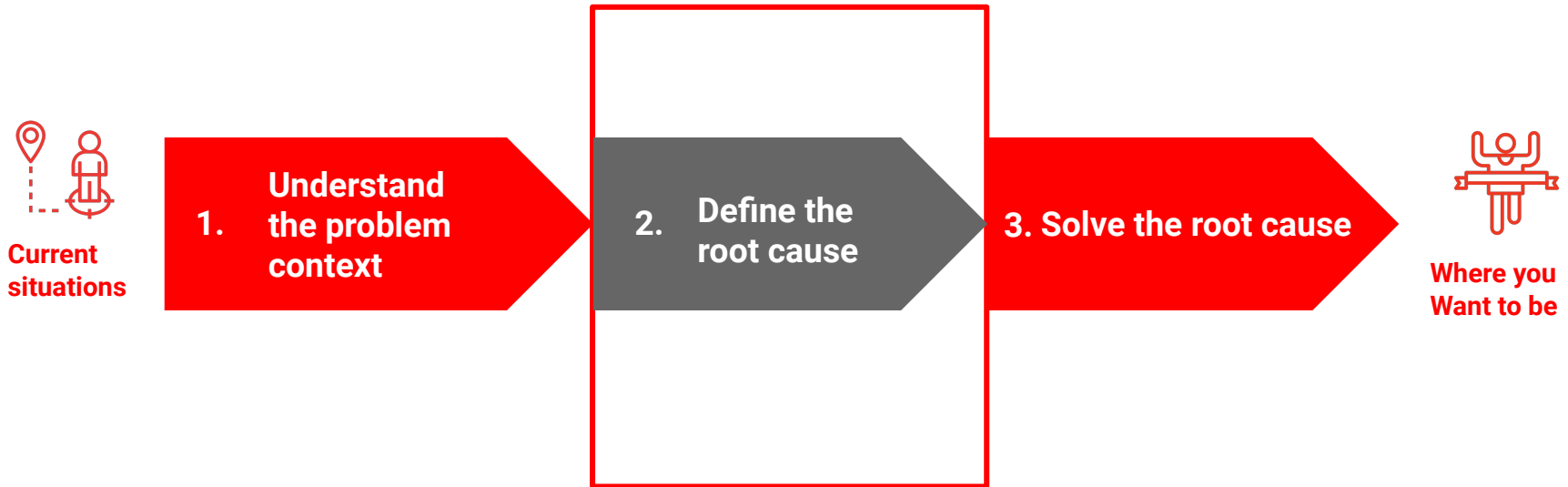
The CRM improvement aims to connect the data that the sales team has to the marketing team's. Currently, a form needs to be completed manually. As a result, the data cannot be processed in real time, looks messy, and some data were found to be lost or lacking.

Open-Ended Interview Questions to Define **the Real Context**

She has an understanding of the situation and complication of the current work process faced by the sales team. Now, she wanted to know the perspective of the marketing team and she **decided to conduct open-ended interview questions**. Find below the interview questions she had prepared.

• Tell me about ...	• e.g Tell me about the current data transfer process process.
• What do you think / feel about ...	• e.g. What do you think / feel about the current process? Is it effective?
• Why do you think ...	• e.g. Why do you think so?
• What happens if a hypothetical situation is introduced ...	• e.g. What happens if I assign someone in your team to remind the sales team to ensure the forms are completed? Or What happens if the sales team is not reporting the correct data?
• How do you see ...	• e.g. How do you see the new CRM implementation will help the process?

The Framework for an **Effective Critical Thinking**



When you start to define all the possible root causes you actually started to follow a concept that is used in many leading consulting firms.

In the following section, we are going to introduce you to a structured way of thinking called **MECE**.

A large, bold, red capital letter 'M'.

Mutually

A large, bold, red capital letter 'E'.

Exclusive



Is each point used only once
and in the best place?

A large, bold, red capital letter 'C'.

Collectively

A large, bold, red capital letter 'E'.

Exhaustive



Do we have all the points we
need to support or defend the
same message?

Also known as **NONG, No Overlap No Gap**

Introducing MECE Guiding Principle in Breaking Down Problem Statement

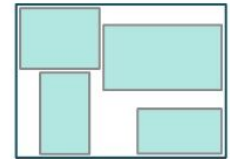
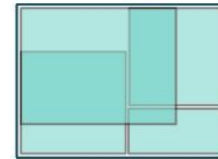
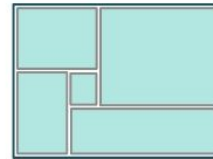
MECE Definition

Mutually Exclusive

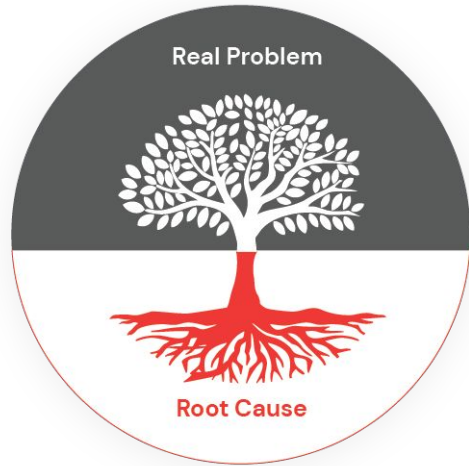


Exclusive

Collectively Exhaustive



Deep dive and try to find the real problem, the “root cause”



In this section, we are going to take a look at a methodology that you can use to find the **root cause**, which is the “5 Whys Analysis”.

5 Whys Analysis

After identifying the initial problem, you ask “Why” 5 times (or less) until you narrow the problem down into one or more key root causes that you can focus your efforts and attention on.

Go through the process until you arrive at a conclusion.

Late for Work

Why
?

I arrived late at the office

Why
?

there was a traffic

Why
?

I forgot to check
the traffic

Why
?

I didn't allocate the
time properly

Example of 5 Whys usage at its simplest form.

5 Whys Analysis



Example of finding one possible root cause:

Why did our company's server crash too often recently?

Why did it crash? Because an API was introduced to that server

Why is that API important? Because we just launched a new feature which uses that API

Why didn't the API work if it's an important part of the feature? Because we had an engineer who was new and didn't know how to use that API properly

Why can't they use it? Because the engineer was never trained

Why is that? Because there is no training introduced by the company



Class Exercise - Applying 5 Whys

Duration: 15 minutes

An e-commerce company, FGH, recently conducted an internal review of their website. It found out that several items, such as travel bags and clothings across various brands, generally generated lower clicks. The company targeted millennials who are mostly fashion-conscious who tend to compare multiple items, hence the results came off as a shock to them.

Customer service also received many questions and complaints from users, asking “why the product selection for fashion items is so few” despite the company partnering with hundreds of suppliers. After looking at the analytics, not many users have been using search feature, too. For a content-heavy website that offers various products, this becomes a question.



Class Exercise - Applying 5 Whys

Duration: 15 minutes

Who: Millennial users, Customer Service team, IT team

Situation:

- The company already partners with hundreds of fashion item suppliers
- Various fashion items having only a few clicks
- Customer service received complaints that users don't have access to various fashion items

Complication:

- Analytics showed that not many users have been using search feature
- Users haven't used the search feature

Problem Statement:

- Why can't users find the items they're looking for that we have in our platform?

Your task is to identify 1 root cause that might surface from this situation using "5 Whys Analysis".

Write down your "whys" and their respective answers. You have 15 minutes to complete the task.



Group Discussion - Applying 5 Whys

Why 1A: Users don't know it's possible to search on the website

Why 1B: The search bar/icon is not easily visible or found

Why 1C: It's on the corner of the page

Why 1D: The developers received such design from the UI team

Root Cause: The search bar is badly designed

How to make sure that the users can find the items they're looking for that we have in our platform

Why 2A: Search results don't return relevant answers

Why 2B: The logic to query the keywords are not accurate

Why 2C: The search fields are too specific (e.g. bag versus backpack)

Why 2D: The use case of the search bar is outdated

[connect to Why 3E:] Internal team has not prioritized working on this

Why 2E: The data variety (i.e. keywords) continues to expand

Root Cause: Internal team has not been keeping up with the new variety; no updates to reflect the situation

Why 3A: Loading time takes too long

Why 3B: Searching algorithm is too complicated

Why 3C: Query is not efficient

Why 3D: Data structure is not optimized

Why 3E: Internal team has not prioritized working on this

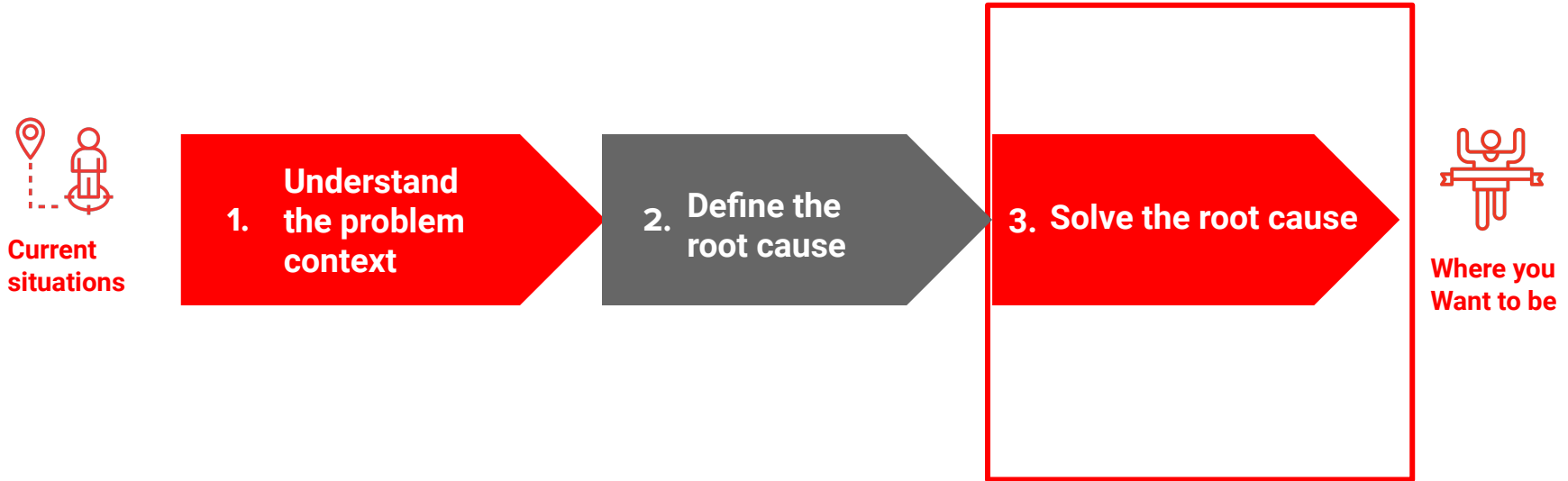
Root Cause: This action item has not been perceived as a priority

Breakdown Problem into **Easy-to-Solve Chunk**

There are several available frameworks that you can use to breakdown problem statement In into several overarching topics.

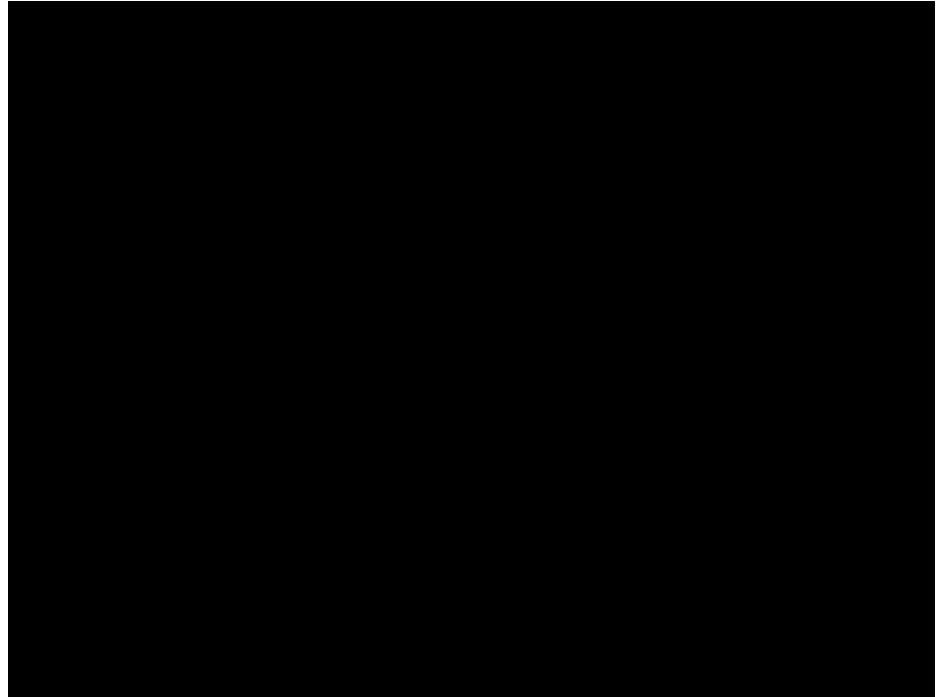
These frameworks allow you to trace how something is developed to deliver the intended results, which can become a helpful starting point to identify the overarching topics.

The Framework for an **Effective Critical Thinking**



**“Fail Fast,
Succeed Faster”**

**Example:
Changi Airport**



“Fail Fast, **Succeed Faster**”

- 1 Once you come up with a prototype, **directly test it**.
- 2 Observe directly so you can **identify** whether there are **pain points**.
- 3 If the solution doesn't fit, **don't wait for perfection**.
- 4 Use the data you gathered to **identify the aspects** that you can **fix**.
- 5 **Repeat the process** until the solution fixes the root cause.

Final Notes

Tips to fully understand **the root cause** in real life working context

- 1 Ask politely
- 2 Create work pit stops for constant checking
- 3 Cultivate a culture of critical thinkers in the workplace

Takeaways to help you **think critically**



Try to look at multiple scenarios to find out why things are happening.



Do more research to have a better point of view.



Framework is a tool, critical thinking is a habit.

Quiz

Pop-Up Quiz!

Duration: 5 minutes

Let's check your understanding of this module!

Please go to the provided quiz link to answer 10 questions related to the material you've just listened to.

The link will be shared in the Chat Box.

Assignment

Assignment

1. To ensure your understanding of the module, please complete the assigned multiple choice questions and essay.
2. You will pass the assignments if you satisfy the following criteria:
 - a. Demonstrate the right application of the knowledge provided in the module in completing the assignments
 - b. Answers should be logically sound, valid, and relevant to the topics at hand
 - c. Please consult the Bangkit 2022 Soft Skills Module Assessment Rubric for more detail.
3. Submit your answer by **April 11th, 2022**. Late or failure to submit will affect your final result in Bangkit Program.



Case Study

Use 5 Why Analysis method to find the problem statement for a real case study faced by Giant Supermarket, which was closed all across Indonesia on August 2021. Have a read on the following excerpt to understand the background and problem statement of the case.

Hero Group to close all Giant supermarkets by August

Publicly listed retail group PT Hero Supermarket plans to close all of its Giant supermarket outlets by the end of July to improve its finances after the pandemic whammed Indonesia's retail industry. The group, which operates 75 Giant outlets according to its website, saw its revenue drop 34 percent year-on-year (yoy) to Rp 1.7 trillion (US\$118 million) in this year's first quarter as mobility restrictions limit shop operating hours and shifted more consumption online.

"This decision was not easy, but we believe this is the best decision in Hero's long-term interest and for employees under the company," said PT Hero Supermarket president director Patrik Lindvall in a statement on Tuesday.



Case Study

Use 5 Why Analysis method to find the problem statement for a real case study faced by Giant Supermarket, which was closed in all across Indonesia on August 2021. Have a read on the following excerpt to understand the background and problem statement of the case.

Hero aims to focus on expanding its IKEA furniture retail, Guardian pharmacy and Hero supermarkets outlets. In its statement, the group explained that it planned to convert five of the Giant outlets into IKEA stores and several others into Lindvall acknowledged that supermarkets were declining in popularity worldwide, but he also expressed confidence that demand for household appliances, beauty products and daily needs for upper-class Indonesians had strong growth potential.

Hero's revenue drop was almost matched by a 33.2 percent year-on-year decline in expenses, such that the company booked a Rp 1.64 billion (\$114.470) net loss in the first quarter of 2021, the company's financial report shows. Bank Indonesia's retail sales index dropped below a reading of 200 in April last year when the country began implementing large-scale social restrictions (PSBB) and has remained below that level ever since, settling at 187.9 in March this year.

In a sign of improvement for the industry, retailers surveyed by the central bank said they expected the figure to return to above 200.



Essay Question

With the situation faced by Hero Supermarket, a hypothetical problem statement was: **“How can PT Hero Supermarket survive as a business while still being relevant to market demand in Indonesia?”**

Use 5 Whys Analysis to find the Root Cause in an essay format.

Clearly define the “why” and the “answer” for each Why chain and state the root cause that you’ve identified.

Thank You