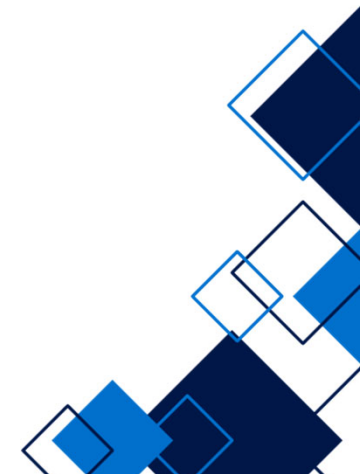# A Systematic Approach to Problem Solving

Ingrid Black, MBA, CPHQ
Director of Quality

Educational Objectives

Learners will be able to:
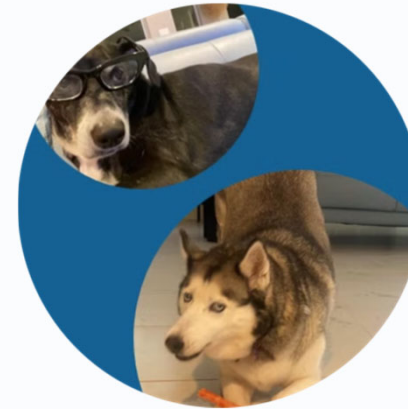
- Define elements of a problem statement
- Develop SMART goals to address problem statement
- Explore problem solving tools

About Me

Background

- Physical Therapist
- MBA in Medical Services Management
- Lean Healthcare Certified
- CPHQ
- 13 years in Continuous/Performance Improvement

Personal

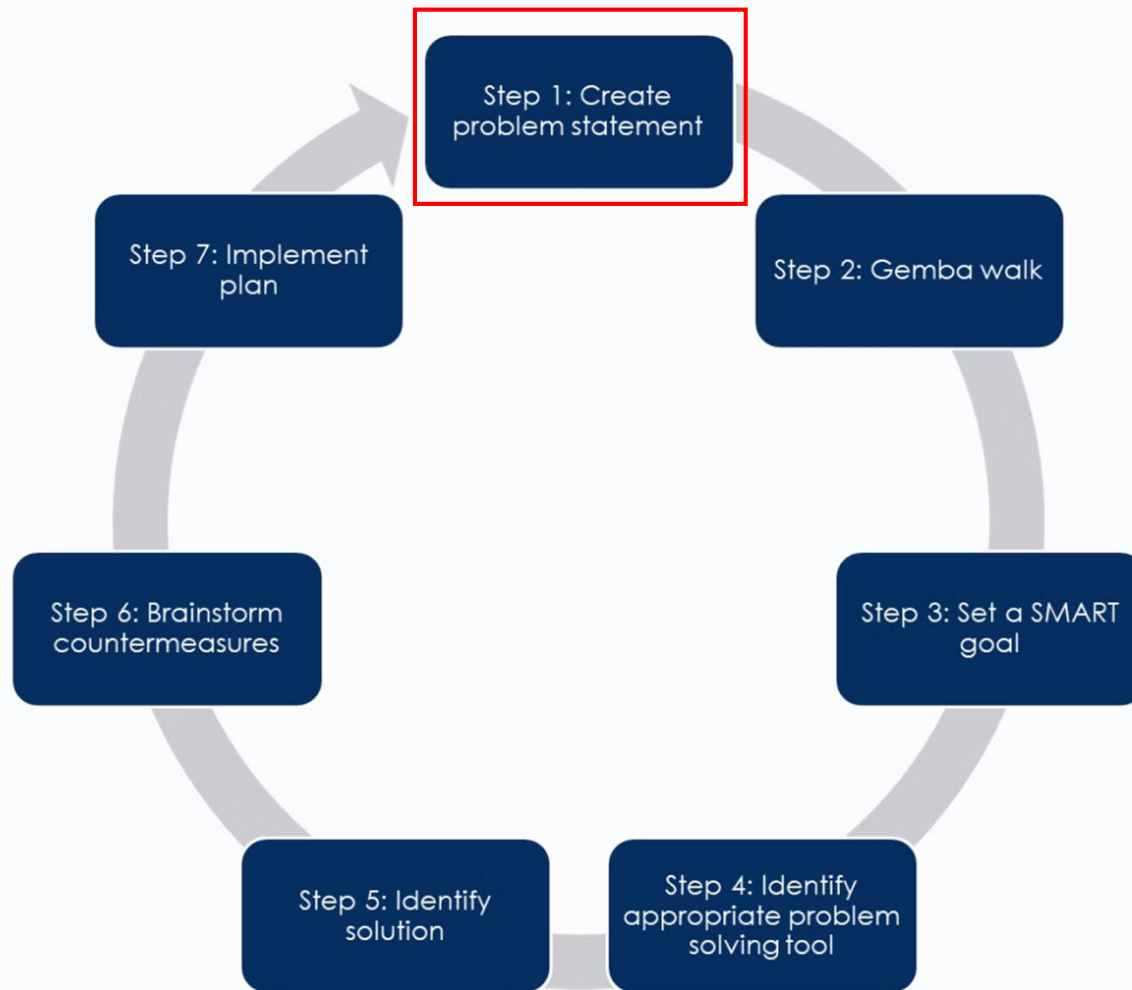- Adopter of senior dogs
- Amateur photographer

How do you know you have a problem?

The first step in solving a problem is to recognize that it does exist.

Activity #1

Identify a current problem that you would like to solve.

Step 1: Create the Problem Statement

It describes:

Who?	What?	When?	Where?	How?
Who is affected?	*What is wrong?*	*When is it occurring?*	*Where is the problem?*	*How large is the problem?*

**The problem statement should NOT describe the WHY

Problem Statement

➢ A good problem statement allows anyone to understand why it is a problem, not the cause.

Included Phrases

- Experiencing
- Excessive
- Increase
- Examples of others?

Phrases Not to Include

- Due to
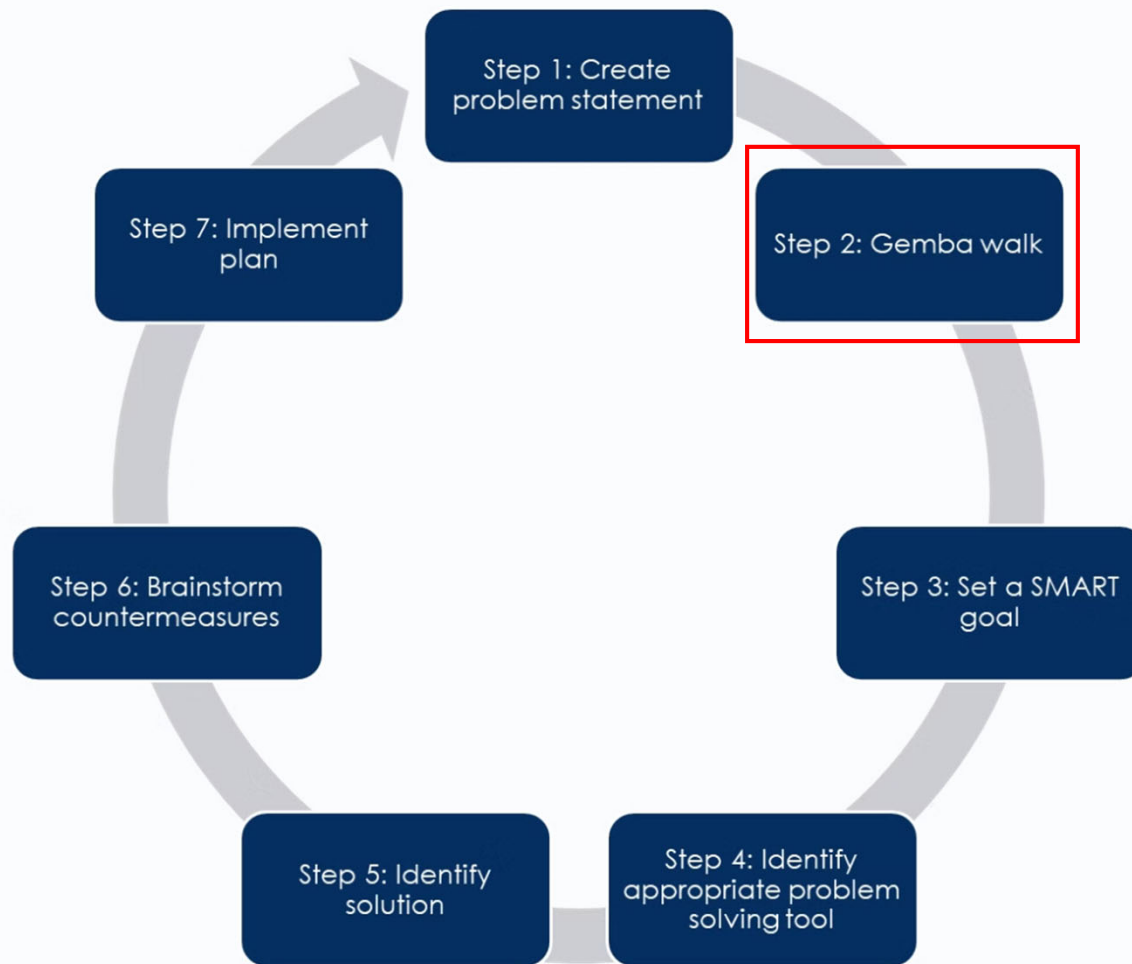- Because of
- Lack of
- Causing

Problem Statement Example:

"Mod Mode is an online fashion retailer. Over the past three months, the company noticed a 40% decrease in its website traffic."

Activity #2

Considering your problem, create a problem statement.

Step 2: Gemba Walk

- Go to Gemba — Where the work is done
- Don't jump to solutions

GEMBA Principles

Observe the process personally,
Observe the real work place,
Team up with the people at the real work place,
But not blame people for their mistakes,
try not to solve the problems and
make changes right away

www.freeleansixsigma.com

Activity #3

Where would you conduct your Gemba walk considering the problem statement you created?

Step 3: Set a SMART Goal

Specific

Measurable

Attainable

Relevant

Time Bound

Step 3: Set a SMART Goal

- ➤ Does NOT
  - • Assign blame
  - • Presume cause
  - • Prescribe a solution
- ➤ Starts with a VERB *such as:*
  - • Reduce
  - • Achieve
  - • Control
  - • Increase

SMART Goal Example:

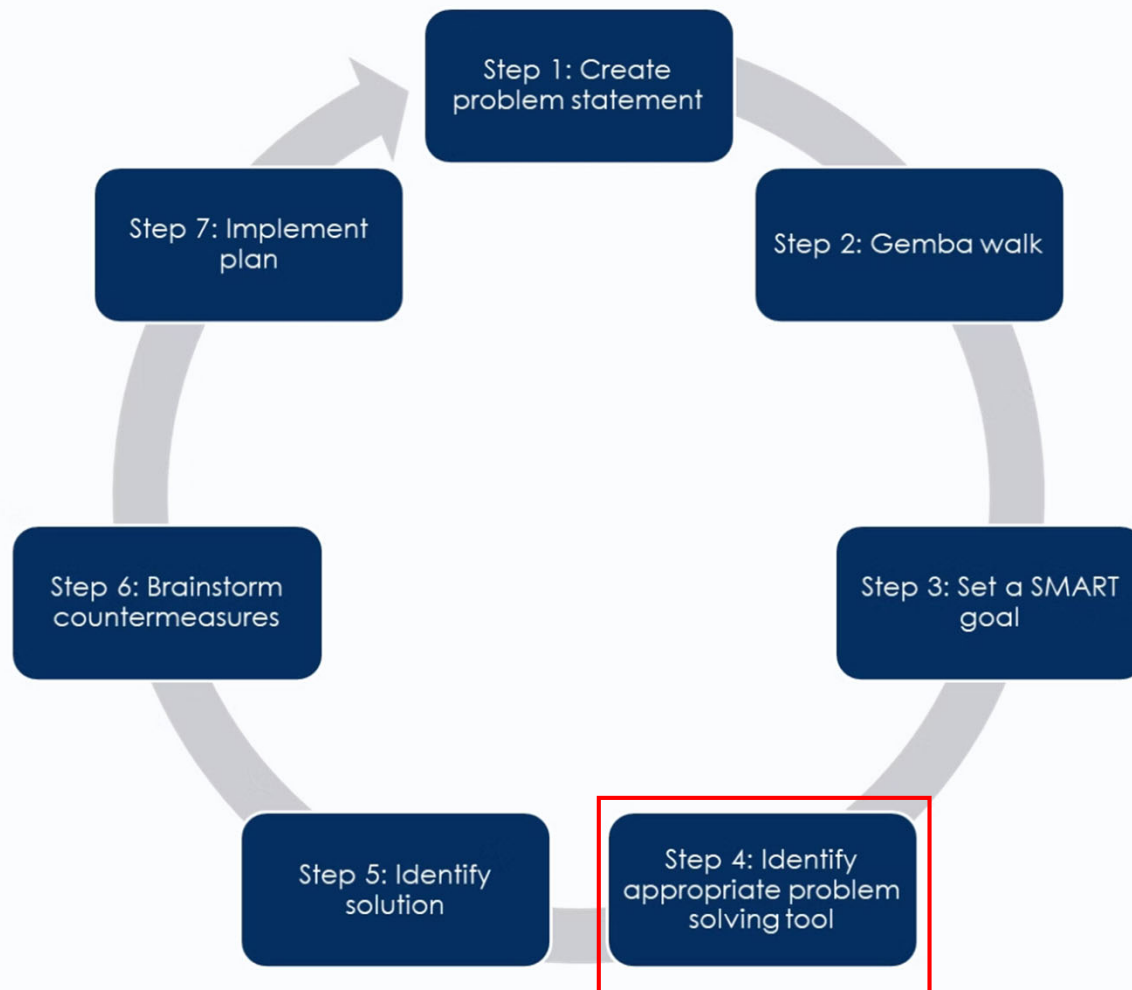"Increase website traffic by 40% in three months (February 1st to April 30th)."

SL1   Ingrid will send over SMART goal example to keep in line with the problem statement
example

Samantha Lemus, 2025-01-27T18:13:08.433

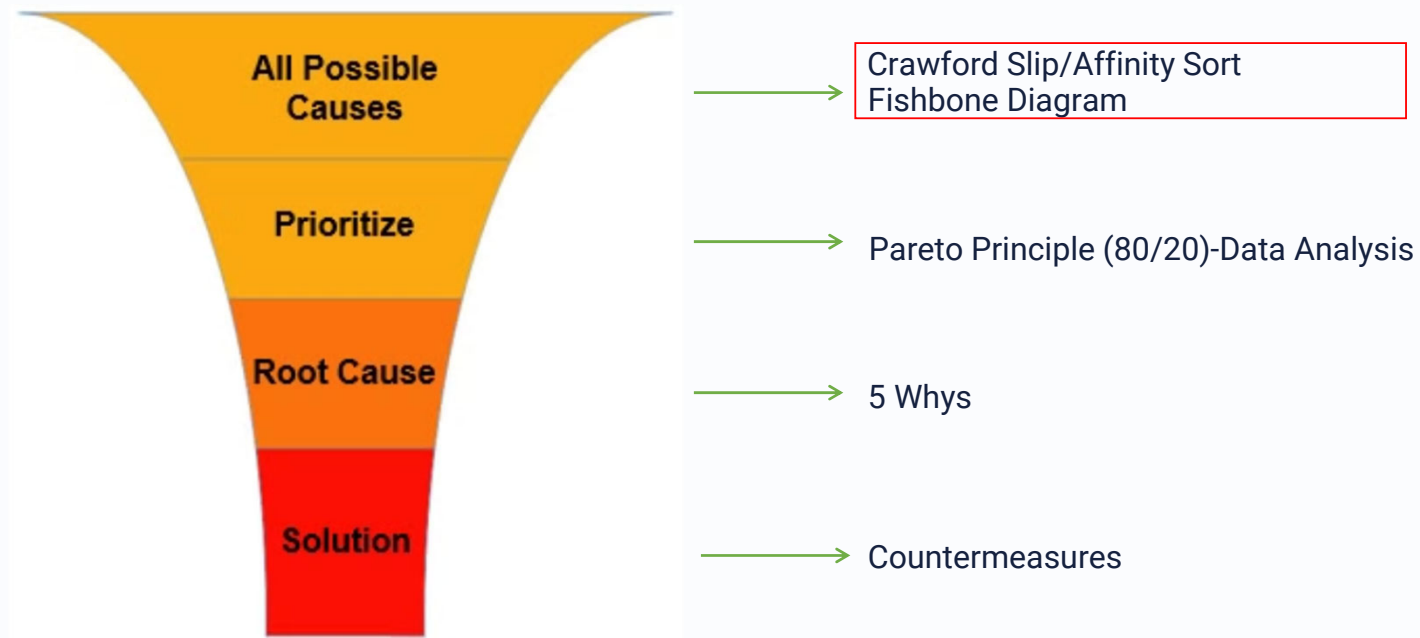# Activity #4

Create at least 1 SMART goal for your identified problem.

Step 4: Identify Appropriate Problem Solving Tool to Identify Solutions

Crawford Slip/Affinity Sort
Fishbone Diagram

Pareto Principle (80/20)-Data Analysis
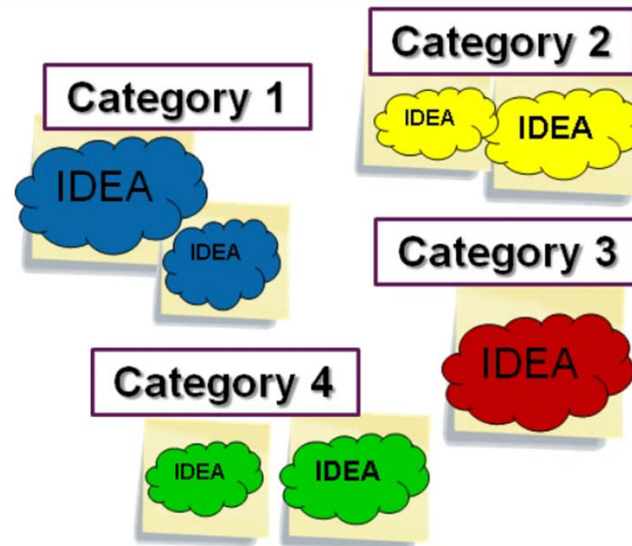
5 Whys

Countermeasures

SL1   Use this slide to revise throughout presentation
Samantha Lemus, 2025-01-27T18:42:12.326

Crawford Slip and Affinity Sort
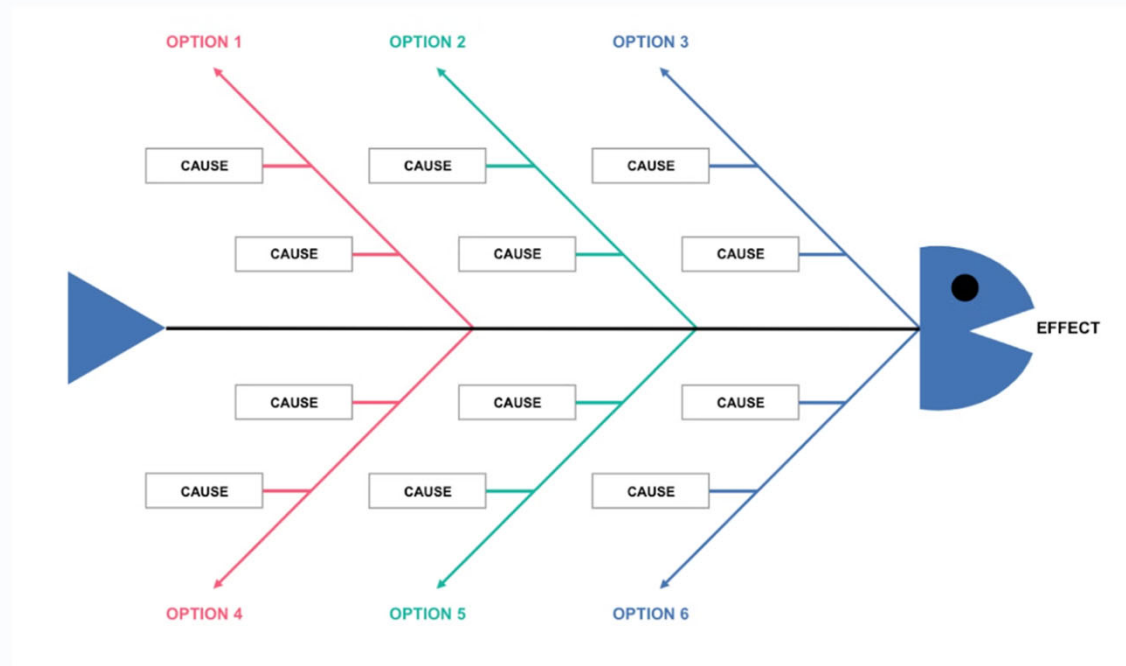

Brainstorm Ideas
- 1 Idea per Post-It
- Time Limit
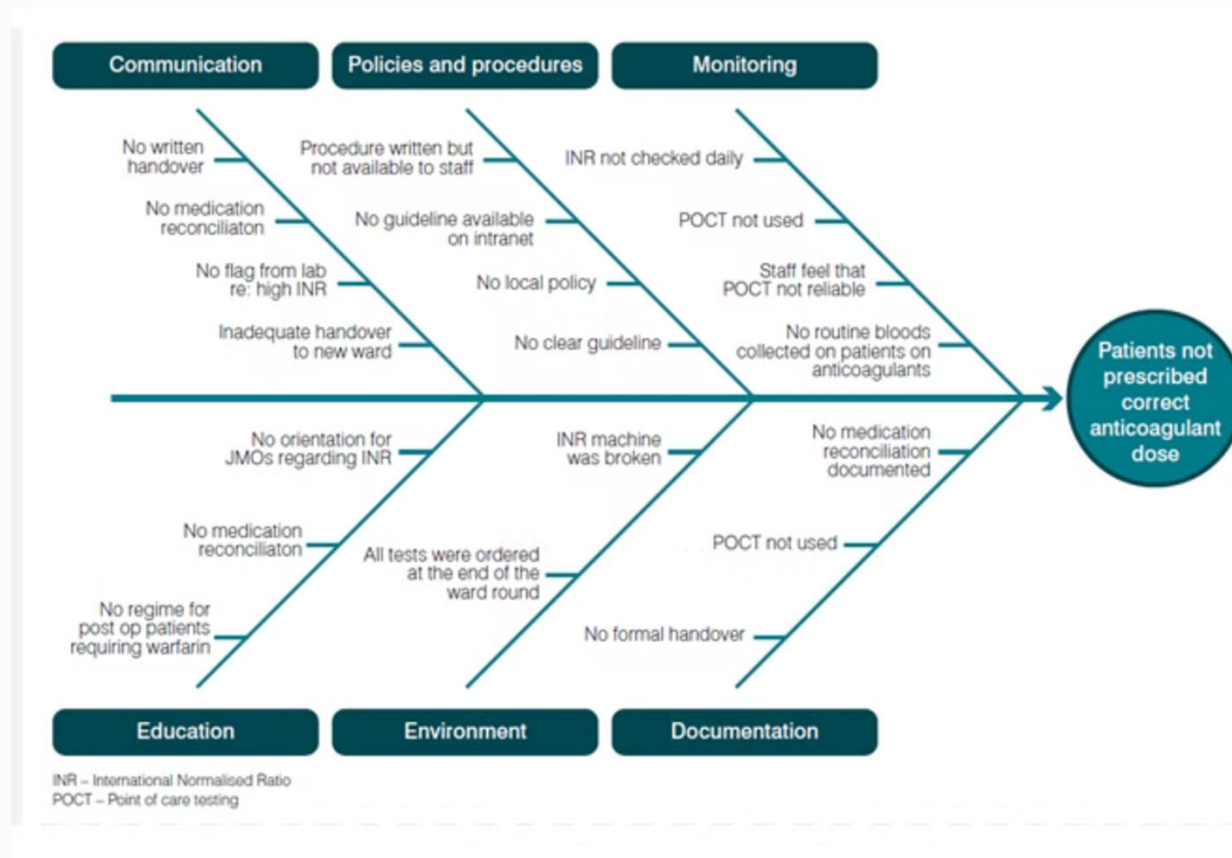- Place on Flat Surface (Random Order)

Affinitize Ideas
- Group like Ideas
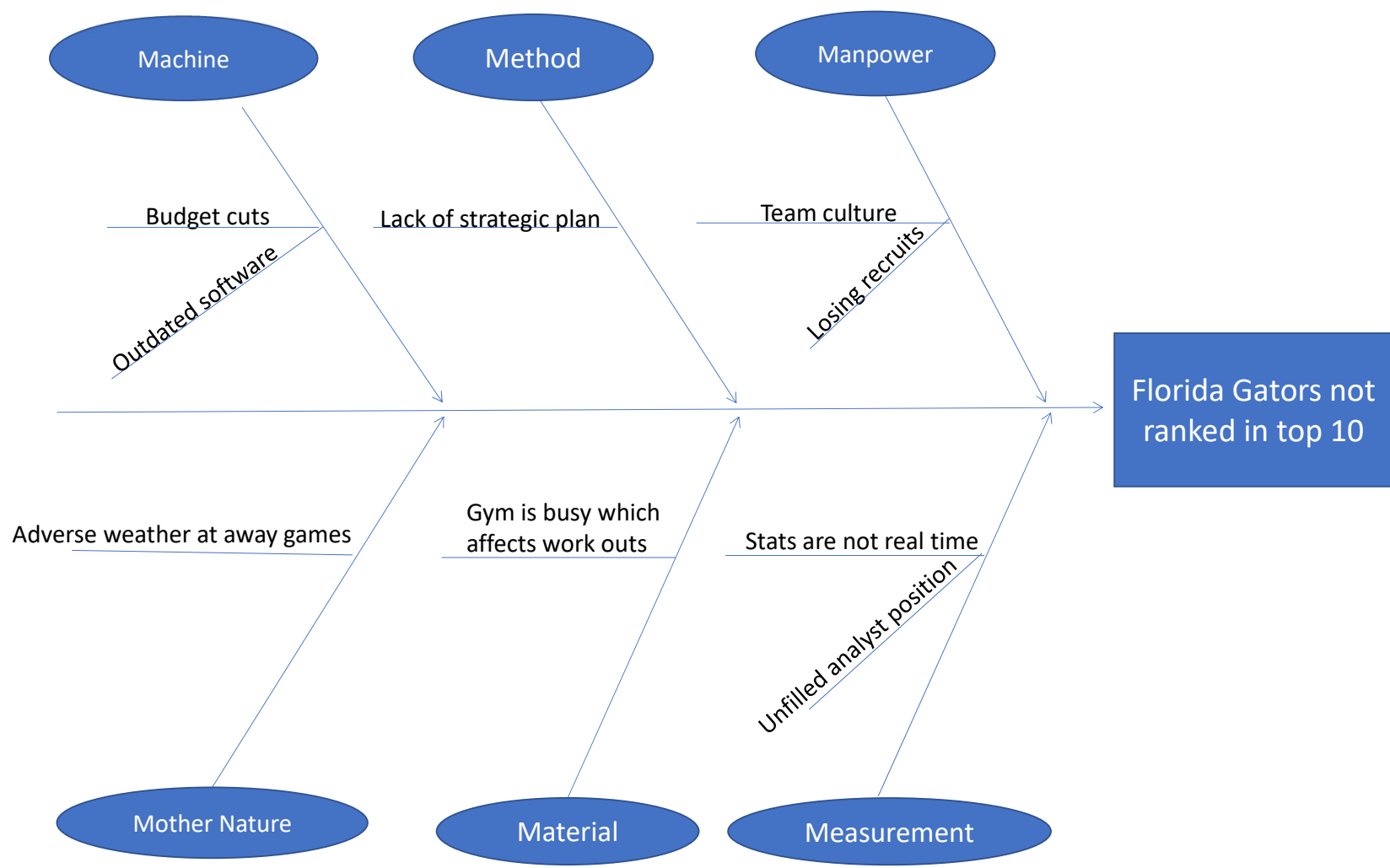- Label with Categories that describe overall theme of grouping

*Project Management in a Culture of Improvement

Fishbone Diagram = Cause and Effect

Fishbone Example

Fishbone Example

Machine
- Budget cuts
- Outdated software

Method
- Lack of strategic plan

Manpower
- Team culture
- Losing recruits

Mother Nature
- Adverse weather at away games

Material
- Gym is busy which affects work outs

Measurement
- Stats are not real time
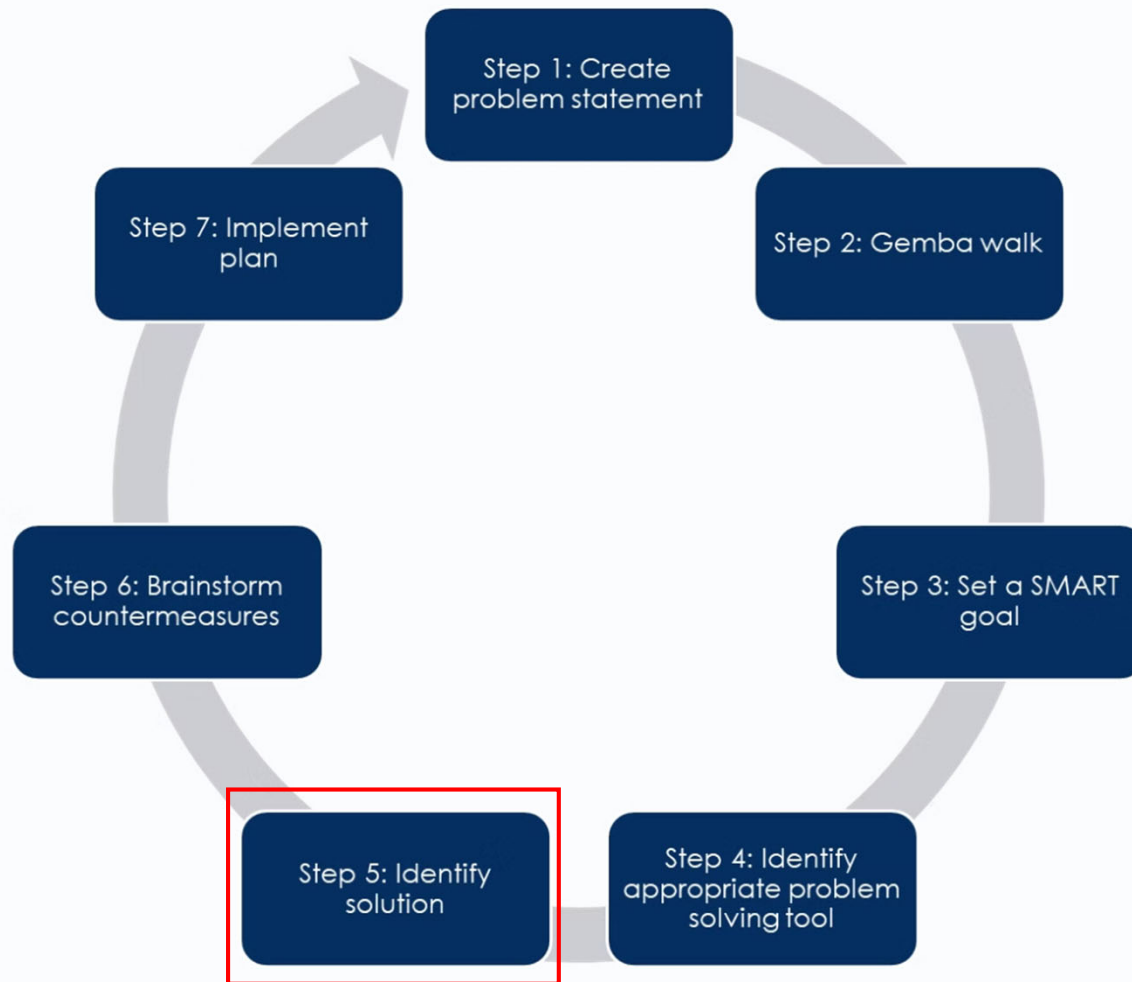- Unfilled analyst position
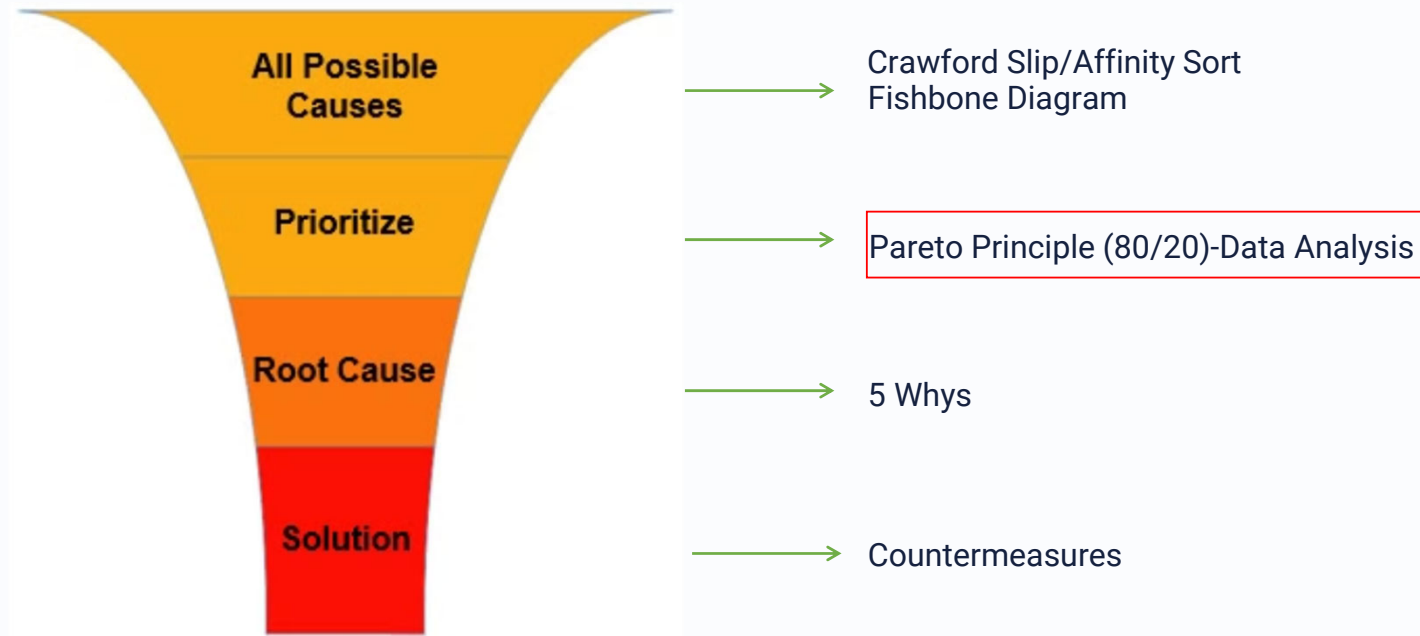
Florida Gators not ranked in top 10

Activity #5

Considering your problem which of the problem solving tools would be most appropriate (Crawford Slip, Affinity Sort, Fishbone)?

Step 5: Getting to the Solution

All Possible Causes → Crawford Slip/Affinity Sort
Fishbone Diagram

Prioritize → Pareto Principle (80/20)-Data Analysis

Root Cause → 5 Whys

Solution → Countermeasures

Pareto Principle (80/20)

"A few causes account for most of the effect."
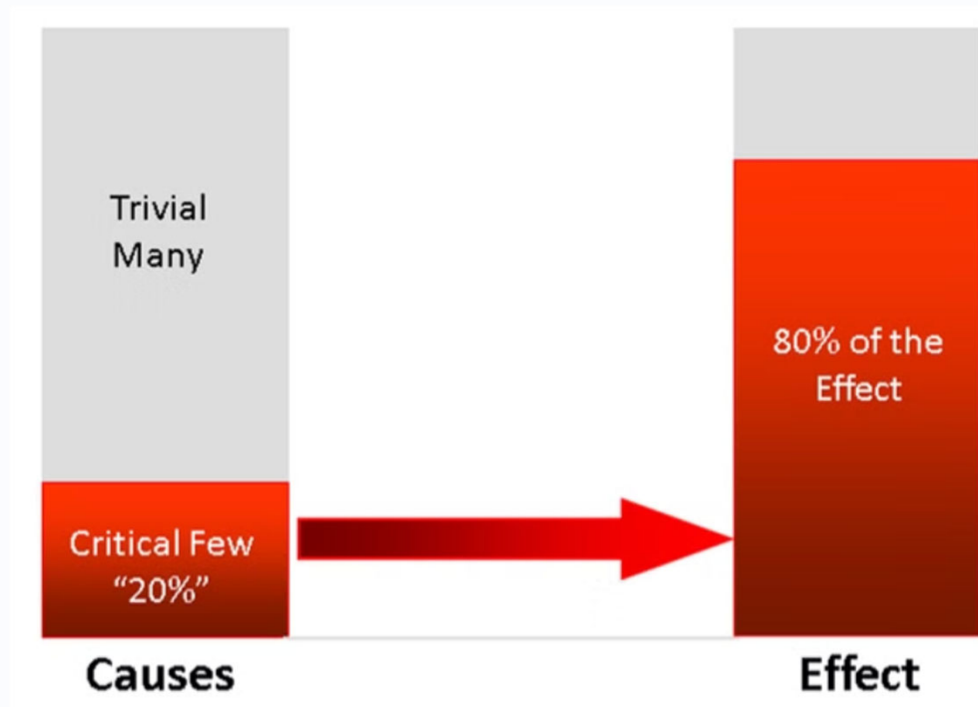
Pareto Principle: Data Analysis

Pareto Chart - Types of Medication Errors (n=430)

Getting to the Solution

Funnel Stage	Method
All Possible Causes	Crawford Slip/Affinity Sort Fishbone Diagram
Prioritize	Pareto Principle (80/20)-Data Analysis
Root Cause	5 Whys
Solution	Countermeasures

5 Whys

Why? → Why? → Why? → Why? → Why? → ROOT CAUSE
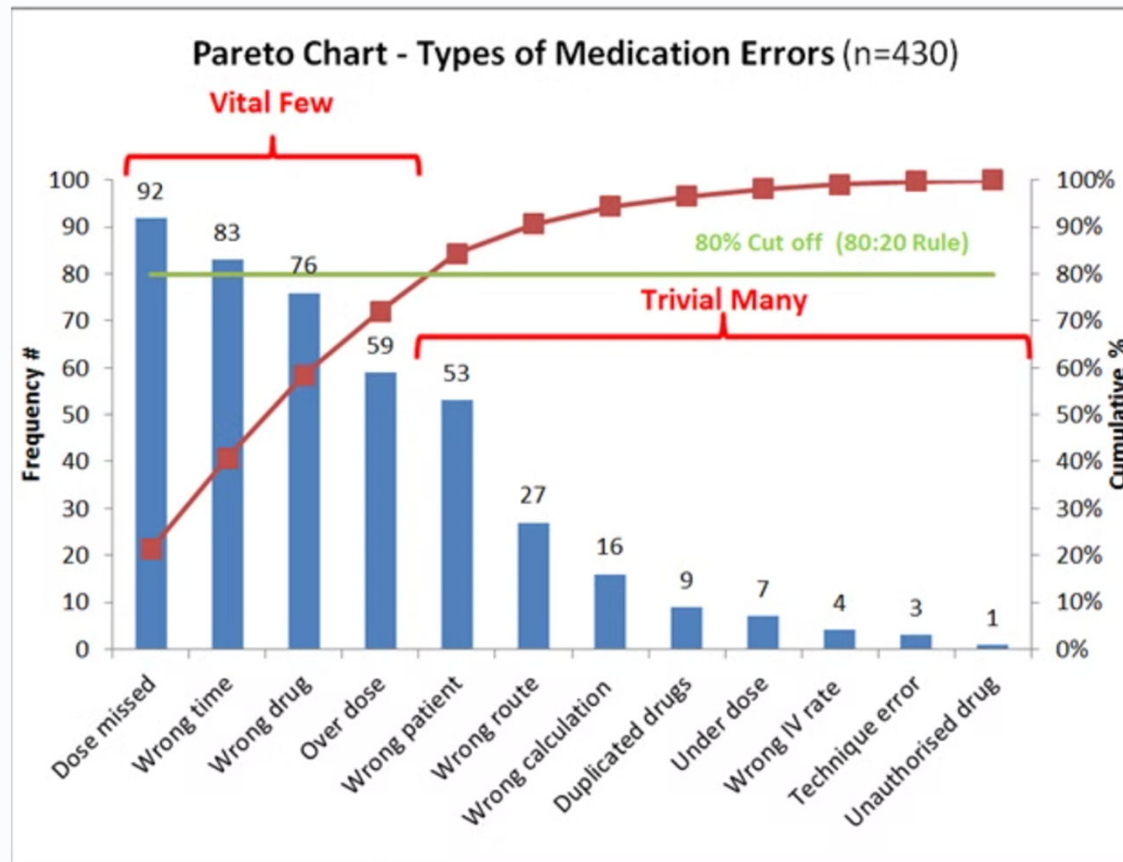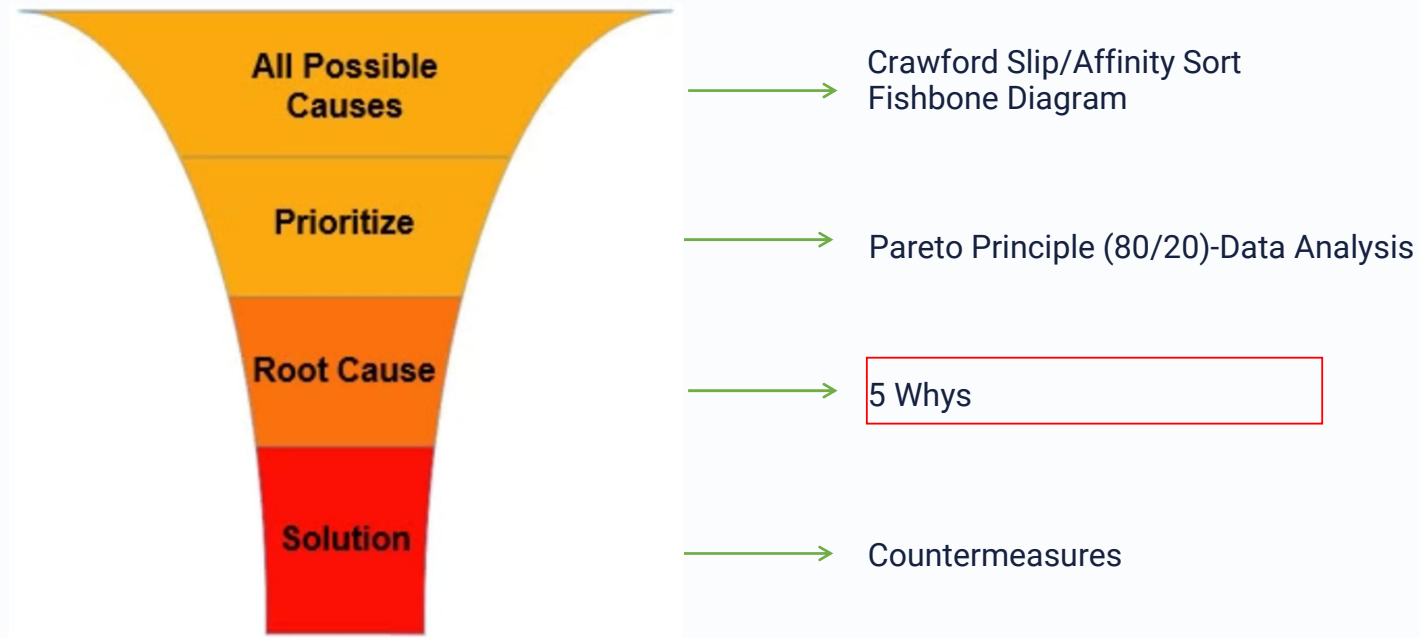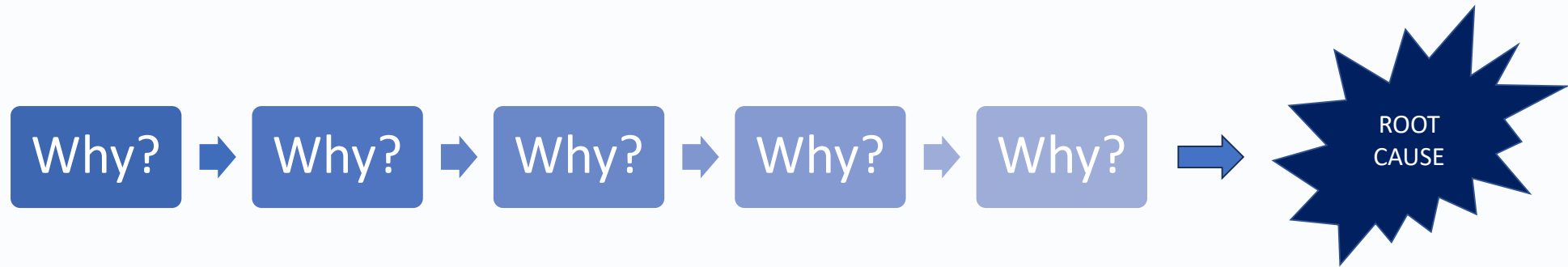
5 Whys: Example

5 Whys in Practice: Example

Problem Statement

"Mod Mode is an online fashion retailer. Over the past three months, the company noticed a 40% decrease in its website traffic."

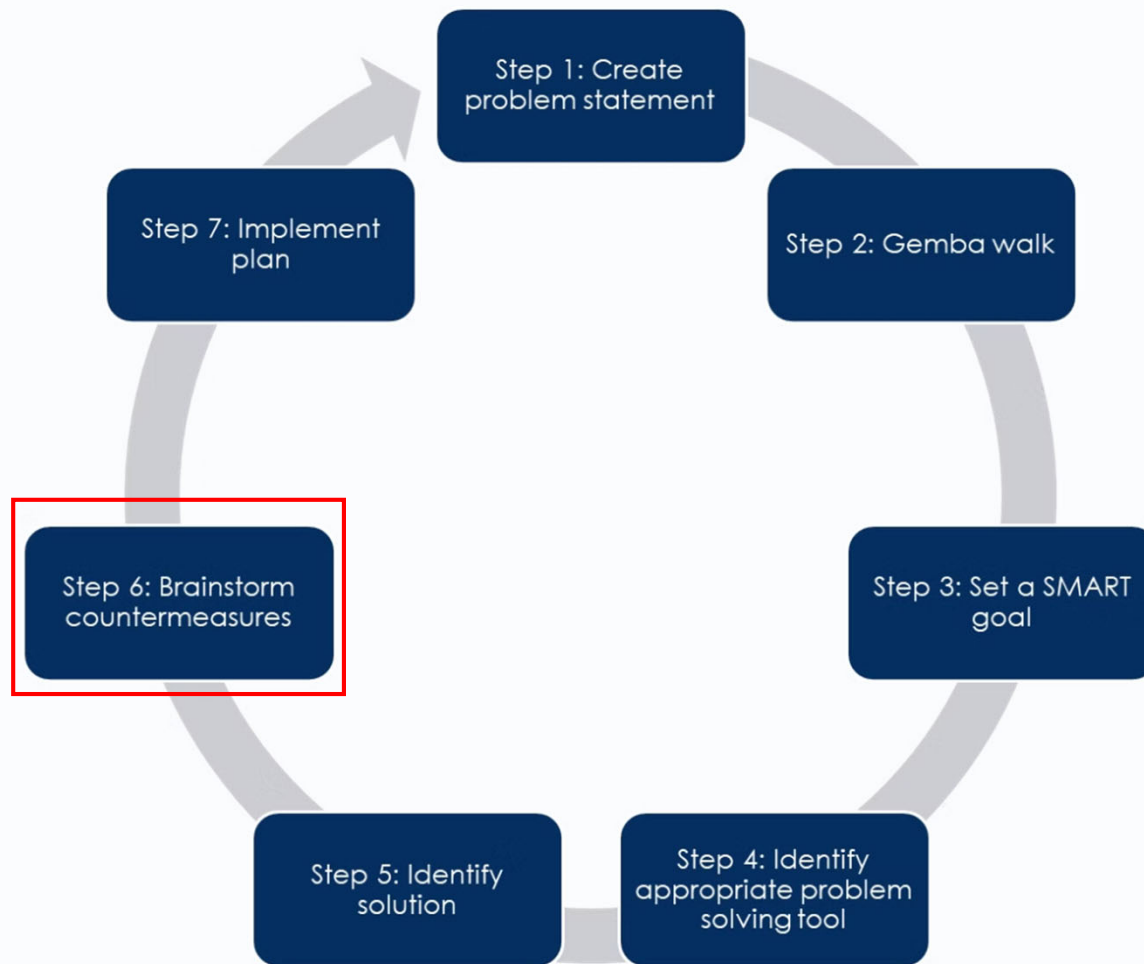What do you think the cause might be?
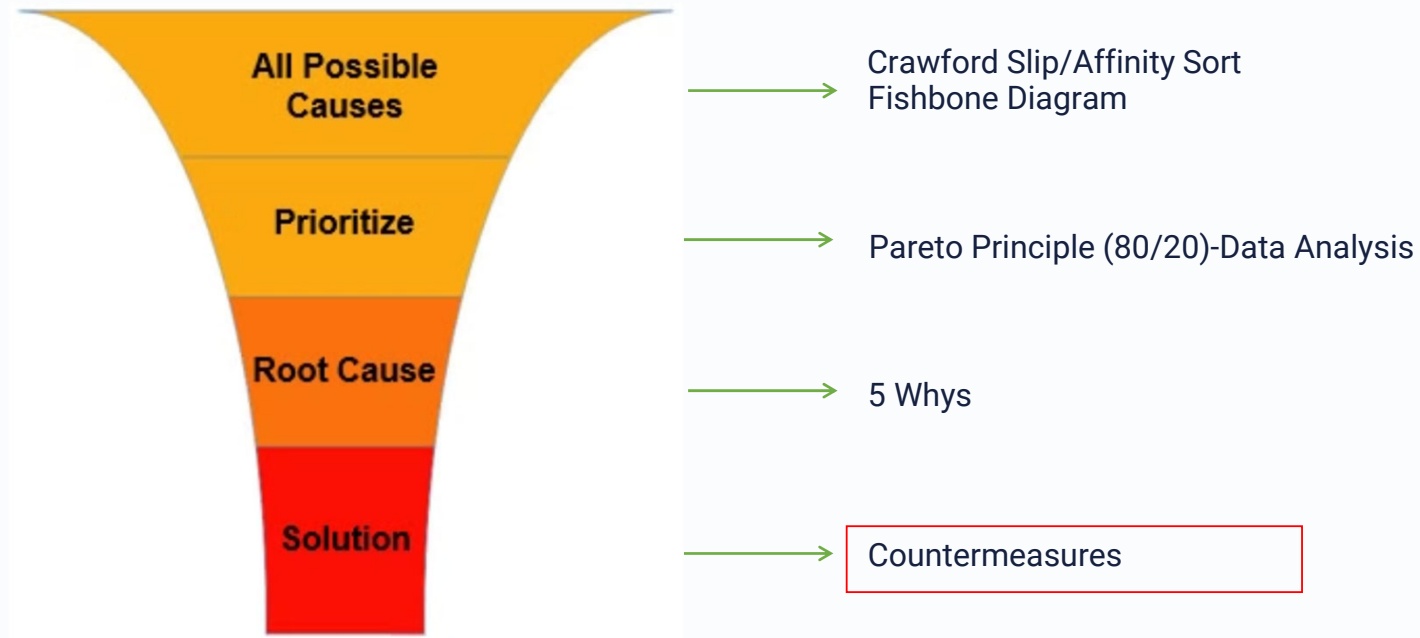
5 Whys in Practice: Example

1 — **Why?** *Fewer people are being exposed to the site.*

2 — **Why?** *Fewer people are seeing the company's digital ads.*

3 — **Why?** *The ad campaign is no longer running on the largest search engine.*

4 — **Why?** *The company's account with the search engine is past due.*

5 — **Why?** *The credit card on file with the search engine expired two months ago.*

6 — **Why?** *When the company received new cards, the account was not updated.*

7 — **Why?** *There was no master list of services linked to the credit card.*

Activity #6

Take a moment to consider the 5 Whys for your problem.

Getting to the Solution

Funnel diagram levels (top to bottom):
- **All Possible Causes** → Crawford Slip/Affinity Sort, Fishbone Diagram
- **Prioritize** → Pareto Principle (80/20)-Data Analysis
- **Root Cause** → 5 Whys
- **Solution** → Countermeasures

Step 6: Brainstorm Countermeasures (Solutions)

Effective Countermeasures

For the root causes you have selected, brainstorm potential countermeasures:

- Ask people who work in the process
- Ask other areas for what works (BRIGHT SPOTS)
- Gather additional data

Ineffective Approaches

These are not countermeasures to process problems:

- "Hold people accountable"
- "Follow up with individual"
- "Hang up a sign"
- "Remind people not to do that"
- "Send out an email reminder"
- "More education"
- "Retrain everyone"
- "Raise awareness"

Countermeasures Example

Problem Statement

"Mod Mode is an online fashion retailer. Over the past three months, the company noticed a 40% decrease in its website traffic."

SMART Goal

"Increase website traffic by 40% in three months (February 1st to April 30th)."

Countermeasures

1. Create master list of services
2. Assign maintenance of master list to position/role
3. Include this as part of onboarding for that position/role
4. Create calendar tickler to check credit card expiration date

Activity #7

Take a moment to brainstorm countermeasures for your identified problem.
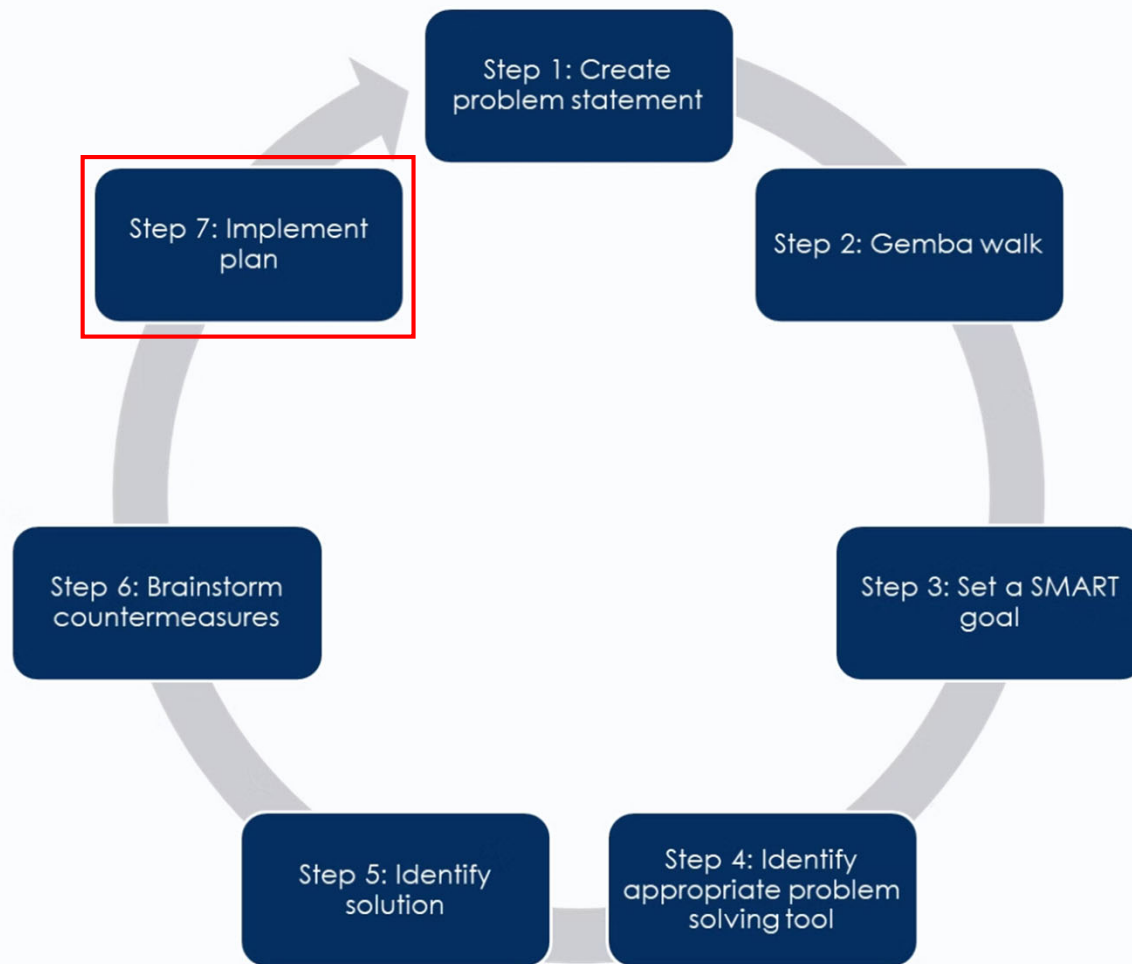
Step 7: Implementation Plan

Training

Monitoring

Sharing Results

Training

- Who needs to receive training?
- What do they need to know?
- What questions and concerns might they have?
- What communication methods will be used?

Monitoring

- What do we need to check?
- How frequently do we check?
- Who will check?
- What do we do with the information?

Sharing Results

- Make results visual

- Did we win or lose today?
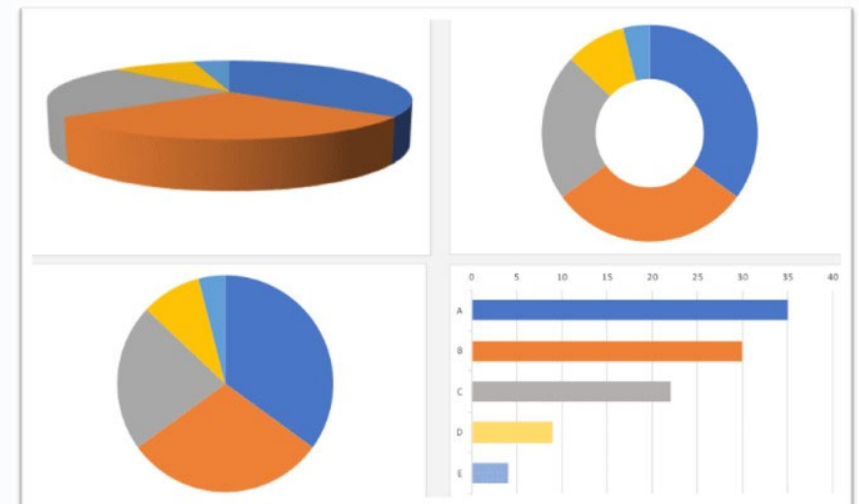
- If we lost, why?

- How can we improve?

Result Sharing: Examples

Result Sharing: The Importance of Data

Data as a Storyteller

Numbers paint a clear picture of progress

Data as a Motivator

Visuals inspire action and accountability

Data as a Guide

Insights lead to informed decision-making and continuous improvement.

Celebrating Wins and Learning from Losses

Recognize Success

Acknowledge achievements and celebrate milestones

Embrace Feedback

Analyze setbacks to identify areas for improvement

Adapt and Adjust

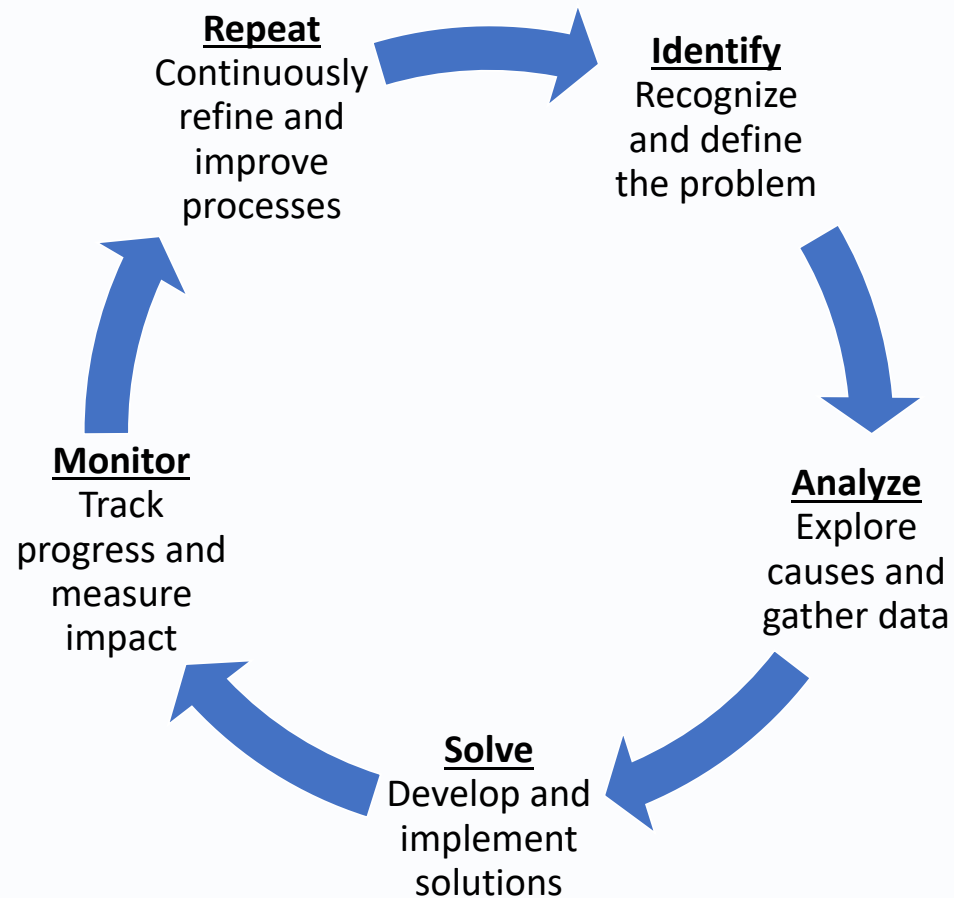Continuously refine strategies based on data and insights

Activity #8

Consider your identified problem, what might your implementation plan look like? Consider the 3 categories of training, monitoring, and result sharing when creating your implementation plan.

Problem Solving: A Continuous Journey

Questions?

Contact

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Director of Quality

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Session Evaluation

A Systematic Approach to Problem Solving