Learning Objectives

- Maslow's Hierarchy of Needs
- Juran's Classification of Customer Needs
- Identify the purpose of a Fishbone Diagram
- Describe how to use Fishbone Diagram to analyze a problem
“Every problem is an opportunity.”

- Kiichiro Toyoda, founder of Toyota

Maslow’s Hierarchy of Needs

- Self-actualization
- Safety needs
- Love and belonging
- Physiological needs

Juran’s Classification of Customer Needs

- Customer needs are complex
- Fall into five classifications:
  - Stated
  - Real
  - Perceived
  - Cultural
  - Unintended

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What is a Fishbone Diagram

- A tool to help identify & display potential causes of a problem
- Involves the whole team
- Visually promotes "System Thinking"
- An organized form of brainstorming
- Prioritizes further analysis

Ishikawa Diagram

- First used by Dr. Ishikawa of the University of Tokyo
- Frequently referred to as an "Ishikawa Diagram"

"Failure is the seed of success."
~Dr. Ishikawa

When to use Fishbone Diagram

- Use during Define phase to assess the current situation
  - To identify possible causes of a problem
  - To ensure that all perspectives are understood
  - To ensure that nothing is overlooked
  - To avoid jumping to solutions
  - To verify the root cause
How to use Fishbone Diagram

- Select a problem
- Select categories
- Draw a fishbone
- Brainstorm; ask “Why?”
- Keep asking “Why?”

Design of Fishbone Diagram

Problem Statement

Fishbone Example

CAUSE
EFFECT

People (Shooter)
Material (Ball)
Concentration
Method (Shooting Mechanics)
Rise Size
Rise Height
Misled (Free Throw)

Motivation
Grain/Feel (Grasp)
Target Point
Rise Alignment
Backhand Stabilty

Size of Ball
Air Pressure
Hand Position
Follow-Through
Machine (Loop & Backhand)

Policies
People
Procedures
Place
Next Step: Analyze the Data

Identify most likely cause
- Causes that have the biggest impact
- Causes that occur often

Verify causes
- With data
- That the causes actually produce the effect that you think they do

Fishbone Diagrams Tips

- Dig deeply into causes of the causes
- Use data to verify
- DON’T JUMP TO CONCLUSIONS!

Example

Problem Statement:
Why is the application process taking too long?
Fishbone Diagram: Activity

- Start with a problem
- Identify as many potential causes as you can
- Draw a fishbone
- Write the problem as the head (effect)
- Draw the bones; choose the categories (causes)
- Start brainstorming by asking “why?”
- Keep asking “why?”

Key Learning Points

The Green Belt should now be able to:

- Have a better understanding of the Customer’s Needs
- Understand Maslow’s Hierarchy
- Create a Fishbone Diagram

QUESTIONS?