Critical Thinking and Problem Solving
Leadership Revisited

- CAUSE > EFFECT
- Real-time Choice in Behavior
- What Kind of Leader Do You Want To Be?
The BLUE Hat

The Blue Hat usually gets things rolling.

- The process we will use
- The Goals and Objectives
- How the meeting will run – the “Ground Rules” so to speak
The WHITE Hat

- The White Hat is about Information.
  - Considering purely what information is available - what are the facts?
  - What facts do we need to research?
  - Are there more questions we need to ask?
  - Can we “prove it?”
The RED Hat

- Emotions are discussed with the Red Hat.
  - Intuitive or instinctive gut reactions or statements of emotional feeling (but not any justification)
  - Share feelings, opinions, emotions openly
  - Change might bring fear…or anger…or…
The BLACK Hat

- The Black Hat is the area of concern.
  - Logic applied to identifying reasons to be cautious and conservative.
  - This is the “What If” proposition.
  - Are you a “devil’s advocate?” You might find this hat to fit quite nicely!
The YELLOW Hat

- Turn off the Black and wear the Yellow Hat!
  - Optimistic response – “We CAN DO this!”
  - Logic applied to identifying benefits, seeking harmony
  - Selling points
Lastly, we can put on the Green Hat…

- Creativity
- Statements of provocation and investigation, seeing where a thought goes
- Turning thoughts into action…eventually!
Problem Solving!!!

- There are a TON of tools available in your “toolbox” for solving problems… the question is, “Which one of the tools should I use for this particular situation?”

- “You wouldn’t use a hammer to screw in a screw…but a hammer is really useful!”
Some Tools...

- 5 Why Analysis
- Fishbone Diagram
- Pareto Analysis
- Process Mapping
- Brainstorming
  - Structured and Unstructured
- Action Item List
- PDCA Cycle
REMEMBER!!

- When you are solving problems, MAKE SURE you are solving the problem and NOT the symptoms!!
- Dig Deeper...for the real problems, not just what is on the surface.

- Use...
  - 5 Whys
  - Fishbone Diagrams
5 Whys

- When faced with a problem…”Mislabeled Product”…ask Why? And then ask Why? And then ask Why? …get the picture?

- Let’s see an example.
Has this ever happened to you?

- The vehicle will not start. (the problem).
  - Why? - The battery is dead. (first why)
  - Why? - The alternator is not functioning. (second why)
  - Why? - The alternator belt has broken. (third why)
  - Why? - The alternator belt was well beyond its useful service life and not replaced. (fourth why)
  - Why? - The vehicle was not maintained according to the recommended service schedule.
Fishbone (Ishikawa) Diagram

- It’s called a fishbone because it has a Head (the problem) and then we go down the spine to see all the smaller bones (the potential causes).

- This can be a GREAT visual tool…and by the way, visual is MUCH better to use!!

- Example follows…
Pareto Analysis

- What is the priority?
- What is the largest contributing problem?
- Data generated solutions are much more impactful and sustainable!
- Example…
A Nice Bar Chart…

Strive Open Quality Issue Tracking by Supplier: 02/20/14 - 02/20/15

Leadership Academy
Process Mapping

- A wonderful VISUAL approach to looking at the flow of a process.
- Post-It Note® approach
- Do you use this in the workplace at all?
- Example
Brainstorming

- Two Heads are BETTER than one!

- RULES to follow:
  - Participate 100%
  - No Filter – Free Flow of Thought
  - Flip Chart all Ideas for all to see
  - There are NO bad ideas!!! Debate the suggestions AFTER they have all been presented
  - RESPECT others!
Types of Brainstorming

- Structured
  - Take turns…go around the table
  - Passes are allowed
  - One at a time

- Unstructured
  - Free for all…
  - With respectful interaction
  - Juggling…
Action Item List

- If you decide on an action, how is it going to get done?
- All of this thinking is wonderful…until it’s time to actually do it and then it falls apart!
- ASSIGN specific tasks to INDIVIDUALS with TIMELINES for completion…

- See the example next!
# CI Action Plan

<table>
<thead>
<tr>
<th>Event Project Do-It</th>
<th>Short Description</th>
<th>Details</th>
<th>Who</th>
<th>Start</th>
<th>Finish</th>
<th>Expected Benefit</th>
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<td>Test all products to ISTA Level 2C</td>
<td>Heyrman</td>
<td>3/28/12</td>
<td>12/31/13</td>
<td>Reduce incident rate</td>
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## Casters Incident Rate

**Reduce Caster and Blade Base Incidents by 5% from 2012**

**Plan Dates**

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**Deliverables**

**Casters Incident Rate**

*Leader: Tim Heyrman*

**2013**
Implementation…PDCA
Wrap Up

Next Steps:

What are two things you are going to attempt to do differently as it relates to problem solving?