Develop REAL Leading Indicators of Workplace Safety

Alan D. Quilley CRSP
Session Description

Classic measures of safety performance are in fact measurements of a lack of safety.

Join an entertaining and lively discussion of the REAL measures of safety. Join an entertaining and lively discussion of the REAL measures of safety.
Session Description

Through lecture, demonstration and participant questions the participants will develop an understanding of the critical process of developing leading indicators of safety performance.

The session will explore thought provoking challenges to current ways of approaching measuring safety performance as well as provide evidence based data and techniques for the participant to use to measure their corporate safety performance.
The Journey

Demonstrate the Process By Doing

1. Developing Your Leading Indicators & Measurements
   a. Unfreeze the Thinking
   b. Establish Goals
   c. Develop Logical Activity Based Indicators
   d. Simple Example - Workshop
   e. Nested Accountability Through Activities

2. Implementing New Measures
1. Developing YOUR Leading Indicators & Measures
Before REAL change can happen, we need to unfreeze the current thinking.
What We Know With Some Confidence!

- Lack of Injury ≠ Safe
- Risk is EVERYWHERE
- Safe is “Managed Risk to an Acceptable Level”
- Safe CAN be created and measured
- It’s Best to Self Discover (Invented HERE)
How Many of THOSE people would get a SAFETY AWARD at your Company?
Perhaps You’re Measuring the \textbf{WRONG THING}!
“... not everything that can be counted counts, and not everything that counts can be counted”

William Bruce Cameron

William Bruce Cameron published an article in the bulletin of American Association of University Professors titled “The Elements of Statistical Confusion Or: What Does the Mean Mean?”

In conclusion, the attachment of this quotation to Einstein is tenuous. There is no evidence that he crafted it, and the evidence that he wrote it on a blackboard is weak.
Dan Petersen – Ask the Right Questions
Counting/Measuring Injuries
What Are the...

Pros

________________
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________________
________________
________________
________________

Cons

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# Counting/Measuring Injuries

What Are the... 

## Pros
- Easy
- Well Defined
- Historical
- Accepted
- Purchasers Use Them

## Cons
- A Matter of Luck
- Can be manipulated
- Doesn’t Measure Safe
- Purchasers Use Them
1b. Establish Goals

When you are done...what will be true?
Goals Are WHAT YOU WANT - NOT What Doesn’t Happen To You!

Don’t Reward What A Dead Man Can Do!
Start With Your Manageable Goals (Trailing Indicators)

Goals Fit Into Predictable Categories
Start With Your Goals (Trailing Indicators)

Simple Example: Mowing Our Lawn
Start With Your Goals
(Trailing Indicators)

Mowing Our Lawn

Leading Indicators

Trailing Indicators
- Quality job – Edged and Clean
- Efficiently – Done in 1 hour
- Grass cut to standard
- No one hurt
- Nothing Damaged
- Environmentally friendly
- Looks nice
- Within Budget of Time & $$
-
1c. Develop Logical Activity Based Indicators

What Do We Need To DO To Accomplish Our Goals?
Leading Indicator?
Leading Indicators To Success
Leading Indicators To Failure
What Do We Need To DO To Accomplish Our Goals?

**Leading Indicators**
- Must Be Activities

**Trailing Indicators**
- Quality job – Edged and Clean
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Mowing Our Lawn
### Mowing Our Lawn

#### What Do We Need To DO To Accomplish Our Goals?

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“Safety Creating Activities Count
AND Can Be Counted!”

Alan D. Quilley CRSP
“Safety Creating Activities Count AND Can Be Counted!”

Alan D. Quilley CRSP

1) What Activities Create Safety and,  
2) How Do We Measure Them?  
3) Quality / Quantity?
# Counting/Measuring Activities

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# Counting/Measuring Activities

## Pros
- Tells people what is expected of them
- You KNOW that things are being done
- Doesn’t Reward NON-Activity

## Cons
- Non Traditional
- Learning Curve
- Resistance To Change
- Those who are doing nothing will be upset!
Counting/Measuring Activities

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- Tells people what is expected of them
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**Cons**
- Non Traditional
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People Will Have To GET OUT OF THEIR OFFICES and ACTUALLY GO SAFETY!
To Measure Is To Motivate!

- Measure and Reward ACTIVITY
- Quality and/or Quantity
- Celebrate Results!
- “Never forget that people do what they do because of what happens when they do it!” – Aubrey C. Daniels
1d. Simple Example - Workshop
Determining Leading & Lagging Indicators/Measures

1. Pick A Task that Is Important
2. Start with identifying the desired Goals (Trailing Indicators – What will be true in the future)
3. Develop at least ONE Activity (Leading Indicator) for each Goal
4. Consider Both Quality & Quantity Measures of the Activity
Replacing A Valve
### Leading VS Trailing Indicators

<table>
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<th>Leading Indicators</th>
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**Replacing A Valve**
Integrated Safety Management System

Company Culture
Mission, Vision & Values

Safe Behaviour
Standards, Practices & Procedures

Accountability
Activities, Measurements & Rewards

Safe Environment
Tools, Equipment, Materials, Environment

Encourage
Engage
Evolve
Evidence-Based
Integrated Safety Management System

Company Culture
Mission, Vision & Values – Commitment of Time & Money

Safe Behaviour
Standards, Practices & Procedures

Accountability
Activities, Measurements & Rewards

Safe Environment
Tools, Equipment, Materials, Environment

Encourage
Engage
Evolve
Evidence-Based
1e. Nested Accountability Through Activities
Implementing Accountability

Introduce

Implement

Refine

Create Dissatisfaction
Educate
Gain Commitment

Be Patient
This Takes Time

Activities
Measurements
Rewards

2. Implementing New Measures
Measurement Features

• **Quantity**
  – Counting How Many

• **Quality**
  – Judging Against A Standard

• **Someone Has To Care!**
  – Is that done yet?
  – How can I help?
## Activity Matrix

### Activity #1

<table>
<thead>
<tr>
<th>Activity</th>
<th>CEO</th>
<th>Manager</th>
<th>Supervisor</th>
<th>Employee</th>
<th>Safety Practitioner</th>
<th>OH&amp;S Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signed OH&amp;S Policy</td>
<td>Sign Annually in July</td>
<td>Review &amp; Comment</td>
<td>Post &amp; Discuss</td>
<td>Be Aware, Comply &amp; Feedback</td>
<td>Draft Revisions &amp; Finalize</td>
<td>Review &amp; Comment</td>
</tr>
<tr>
<td>Walk Through</td>
<td>Monthly</td>
<td>Weekly</td>
<td>Daily</td>
<td>Daily</td>
<td>Daily</td>
<td>Weekly</td>
</tr>
<tr>
<td>OH&amp;S Meetings</td>
<td>Monthly</td>
<td>Weekly</td>
<td>PreJob</td>
<td>PreJob</td>
<td>Daily</td>
<td>Weekly</td>
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</tbody>
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**Who, What, When, Where, Why & How**
Just the Way It Is Around Here!

What gets measured...gets done
What gets rewarded...gets results
Success is Imminent...

• If you’ve involved the Stakeholders
• If you “own” the measures (Invent Them To Fit Your Goals)
• If you listen to and address the concerns
• If you follow the plan to acknowledge, reward and celebrate
Theory Becomes Reality
Solution To Suicidal Deer!
## Leading Indicators Of Safety

<table>
<thead>
<tr>
<th>REQUIRED SAFE DRIVING BEHAVIOURS</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>SPEED</strong>: Did you drive according to road conditions and or posted speed limit?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>2. <strong>DISTRACTIONS</strong>: Were you able to drive without distractions? I.E. 2-Way radio, Cell phone, Writing. Etc.</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>3. <strong>VEHICLE CONDITION</strong>: Did you ensure your headlights, tail lights and windshield were clean/clear?</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>
Measure The Right Things... Get Results

Vehicle Damage Incidents Dropped Over 46% to Low Single Digits Annually

% Safe Behaviours

Last Two Quarter
We Have A LOT of Fires!
### Trailing Indicators

#### Field Operations

<table>
<thead>
<tr>
<th>Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
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<tbody>
<tr>
<td>Major</td>
<td>6</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Serious</td>
<td>101</td>
<td>64</td>
<td>33</td>
<td>13</td>
</tr>
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</table>

#### Percentage Reduction

- 2005: -37%
- 2006: -48%
- 2007: -61%
Typical Leading Indicators Of The Creation of Safety

• Safe Behaviours Observed
• Time To Resolve Safety Issues
• Processes Reviewed
• Management Of Change Completed
• Safety Meetings & Discussions
• Recommendations Implemented
• Workplace Observations Completed
• Cultural Analysis
• Employee Perception
Thank You For Your Dedication In Helping Make Workplaces Healthy & Safe

Alan D. Quilley CRSP

www.safetyresults.ca
Available
www.safetyresults.ca
http://safetyresults.wordpress.com/

Honourable Mention
Globe & Mail's
Best Business Books of 2006