Tool 9 − Problem Statement

TOOL: This is the **Problem Statement** tool. A problem cannot be solved until it has been defined. Moreover, there is an old adage that states: "a problem well defined is half solved."

WHEN: The first step in any problem solving methodology is to define the problem. Unfortunately experience suggests 90% of undisciplined problem solving is spent:
- Solving the wrong problem
- Stating the Problem so it can't be solved
- Solving a Solution
- Stating problems too generally
- Trying to get agreement on the Solution before there is agreement on the Problem

HOW: Understanding the elements of a problem statement is key:

1. **Characteristics of an Effective Problem Statement are:**

• Specific	• Describe Undesirable or Unacceptable:
• Concise	○ Circumstances
• Objective	○ Conditions
• Statement of a "Symptom"	○ Events
• Observable	○ Behavior

2. **Criteria for an Effective Problem Statement are:**

• Measurable	• Not a Solution
• Baseline Data	• A Process
• Can Show Improvement	• Doable

3. **Characteristics of a Poor Problem Statement are:**

• Theories	• Causes
• Judgments	• Solutions
• Topics	• Wish Lists
• Assumptions	• Objectives
	• Broad Generalizations

4. **Beware of and Try to Avoid:**
- Questions; they are not problem statements
- Solutions masquerading as a problem; they are statements about what one would like, or should be, not about "what is."
- "Lack of" statements; they are at best statements about a possible cause of some condition. That 'condition' is the problem.
- Problems expressed in terms of "training"; once again, "inadequate" may be a cause, "proper training" may be a solution, but what is going wrong? The answer to that question is the problem statement.
- Subjective statements about communications, morale, motivation and the like are not particularly productive starting points. What are the <u>undesirable</u> circumstances, conditions, or behavior? That's the problem.

5. Hints and Tips in Constructing a Problem Statement:
- Ask: How do you know? What is the evidence? Can you give an example?
- Good Test: Does the Problem Statement lead us easily and naturally to the data collection necessary to quantify its existence?

6. Exercise: Study the following table from left to right.

A. Problem Statement	B. What's Wrong with Statement?	C. Prompting for Improvement	D. Possible New Statement
Housekeeping	A topic; no specific info about deficiency	*Can you give an example?*	50% users disk space at 90% capacity
Lack of Training	An assumption; a solution masquerading as a cause	*What brings you to this conclusion?*	New software is not being used
Need more Clerks	A solution	*Why do you say that? What's happening now?*	Clerical workload is backlogged 7 days
Lack of Commitment	An assumption; a judgment; no specifics	*What do you see that brings you to this conclusion?*	Support staff do not follow-up on calls
Out-dated equipment	Too general; no specifics	*Why concerned about the age of equipment?*	Copier can't keep pace with demand
Safety	A topic; no specific info	*Can you give examples of problem?*	Injury rate has doubled
Insufficient Preventive Maint.	An assumption regarding "sufficient" maintenance	*Why do you say "insufficient"?*	Equipment is down 10% of the time
Poor Communications	Too general; What is being experienced	*What's wrong? Can you give an example?*	Night shift jobs fails more often

NOTE: **#1.** This material is based upon *"Triggers"* – Skill-building Exercises for Teams – HH&R.

TIPS: **1.** Create a worksheet handout of the above exercise table with only column **A** filled in.