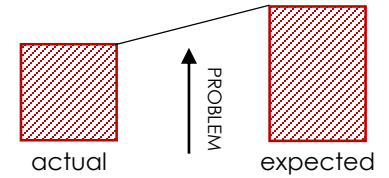


Problem Solving

LUCA BOI, MHA | UNIVERSITY OF UTAH HEALTH

A problem is a **gap in performance**
(actual versus expected)

Problem solving is identifying the possible causes of that "gap" and mitigating or eliminating them, so that the performance can meet expectations.



JUST DO IT OR RAPID IMPROVEMENT	COMPLEX & STRUCTURED PROBLEM SOLVING	RESEARCH STUDY OR INNOVATION
<ul style="list-style-type: none"> Quick action is preferred or necessary The cause of the problem is self-evident Proposed solution is small, easily testable, and not risky Ask: how can I make this process better? 	<ul style="list-style-type: none"> The cause of the problem is unknown The countermeasures are difficult to adopt Disciplined approach to problem solving is preferred Multiple stakeholders or departments needs to be involved 	<ul style="list-style-type: none"> New knowledge on how to treat disease or improve patient care Data and statistical analysis are necessary Human subjects participation and IRB approval process It may consists of In-house research or externally funded research projects



If there is an **unknown cause** or if the **countermeasures are difficult to adopt**, a disciplined approach to problem solving is preferred

There are various models (PDSA, DMAIC, A3, etc.) and all models follow **these steps**:

Problem Statement	In this step you answer the question "Do you have a problem?" by making your problem statement specific, measurable, relevant, and time-bound.
Baseline Analysis	In this step you study and observe the process to find out "Why is it a problem?" through data analysis and fact finding (process map and go and see the work).
Investigation	In this step you find out "What is causing the problem?" by doing a root cause analysis (fishbone diagram, ask why 5 times).
Improvement Design	In this step you brainstorm possible ways of "How are you going to solve the problem?" and select the one you should implement, by assigning responsibilities and timeframes for implementation.
Implementation	
Monitoring	All throughout the process you discussed "How will you know if it worked?" and what measure of success you will use to monitor the changed process.