



The Foundations Improvement: Leadership Insights for Primary Care

November 7, 2024

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Session Plan

The Science of Improvement

- The Science of Improvement
- Revisit an improvement classic

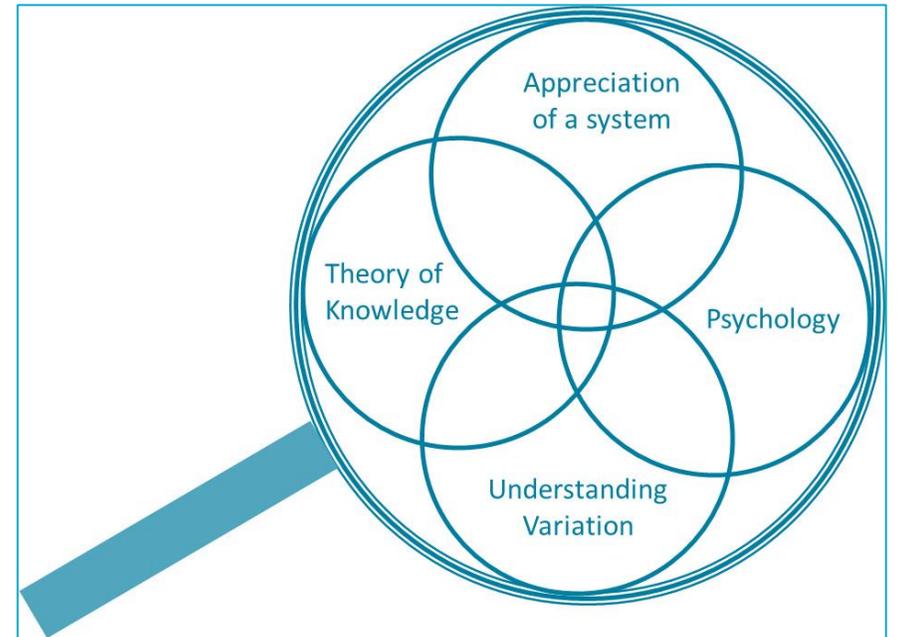
Applying the Science to Primary Care

- Q & A



Intellectual Foundations for the Science of Improvement

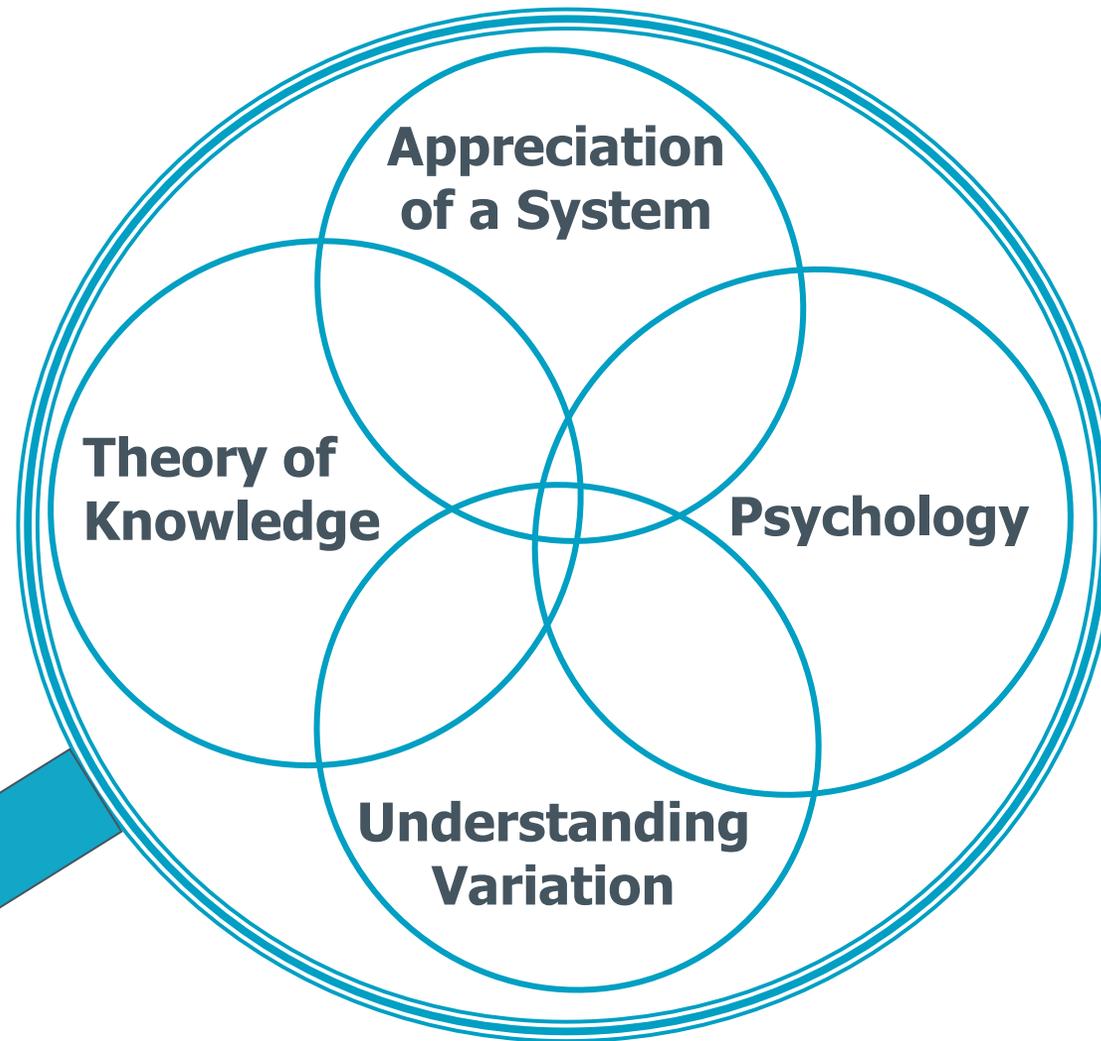
- The science of Improvement has deep roots in intellectual history.
- These intellectual foundations are not static; they develop and grow over time, as all sound science does
- “Fads” come and go as the sciences are packaged for action, but underneath the fads are unifying scientific principles... the “classics” of improvement.
- W. Edwards Deming’s framework – which he called “profound knowledge” – offers an efficient framework for building this science.



Basis for the Science of Improvement: Deming's Lens of Profound Knowledge



W. Edwards Deming
(1900 - 93)



*An outside view
– a lens for
improvement*



Two Types of Knowledge

Subject Matter Knowledge:

Knowledge basic to the things we do in life. Professional knowledge.

Subject Matter Knowledge

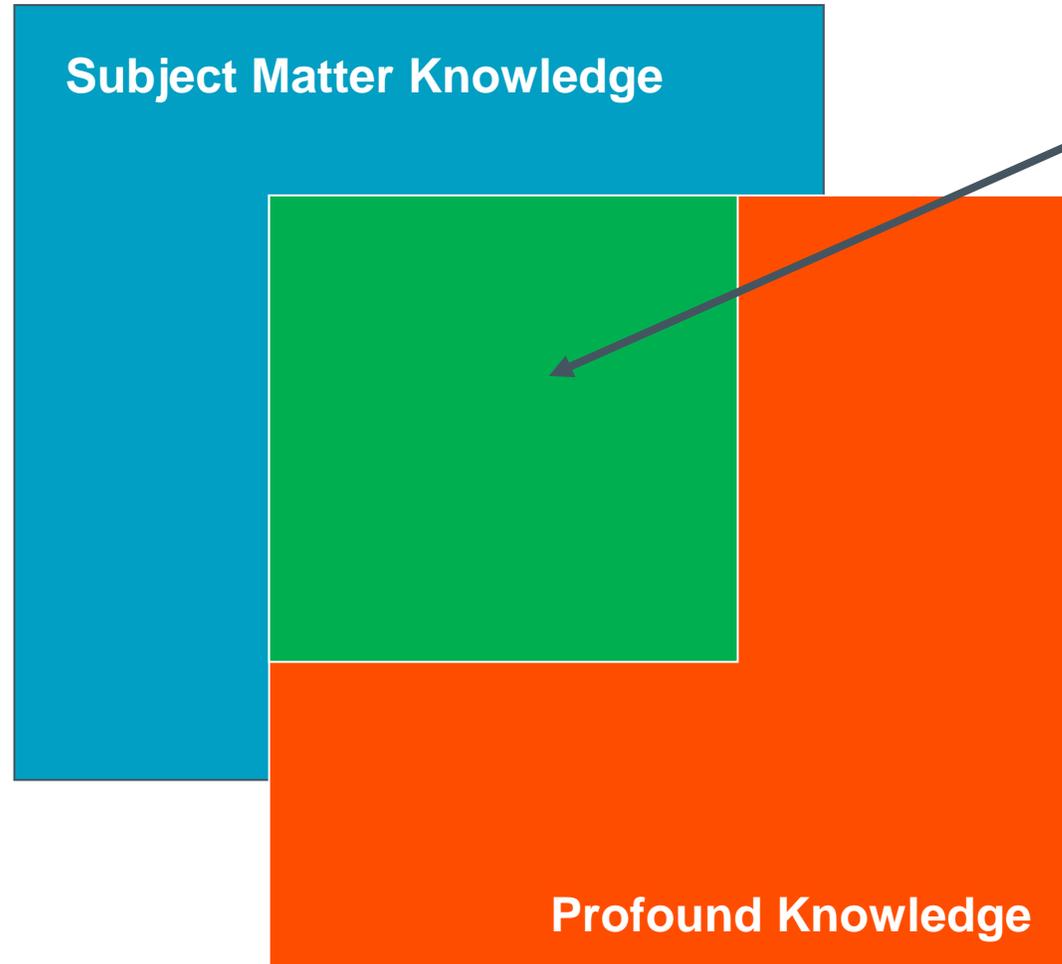
Profound Knowledge

Profound Knowledge:

The interaction of the theories of systems, variation, knowledge, and psychology.



Knowledge for Improvement



Improvement: Learn to combine subject matter knowledge and profound knowledge in creative ways to develop effective changes for improvement.

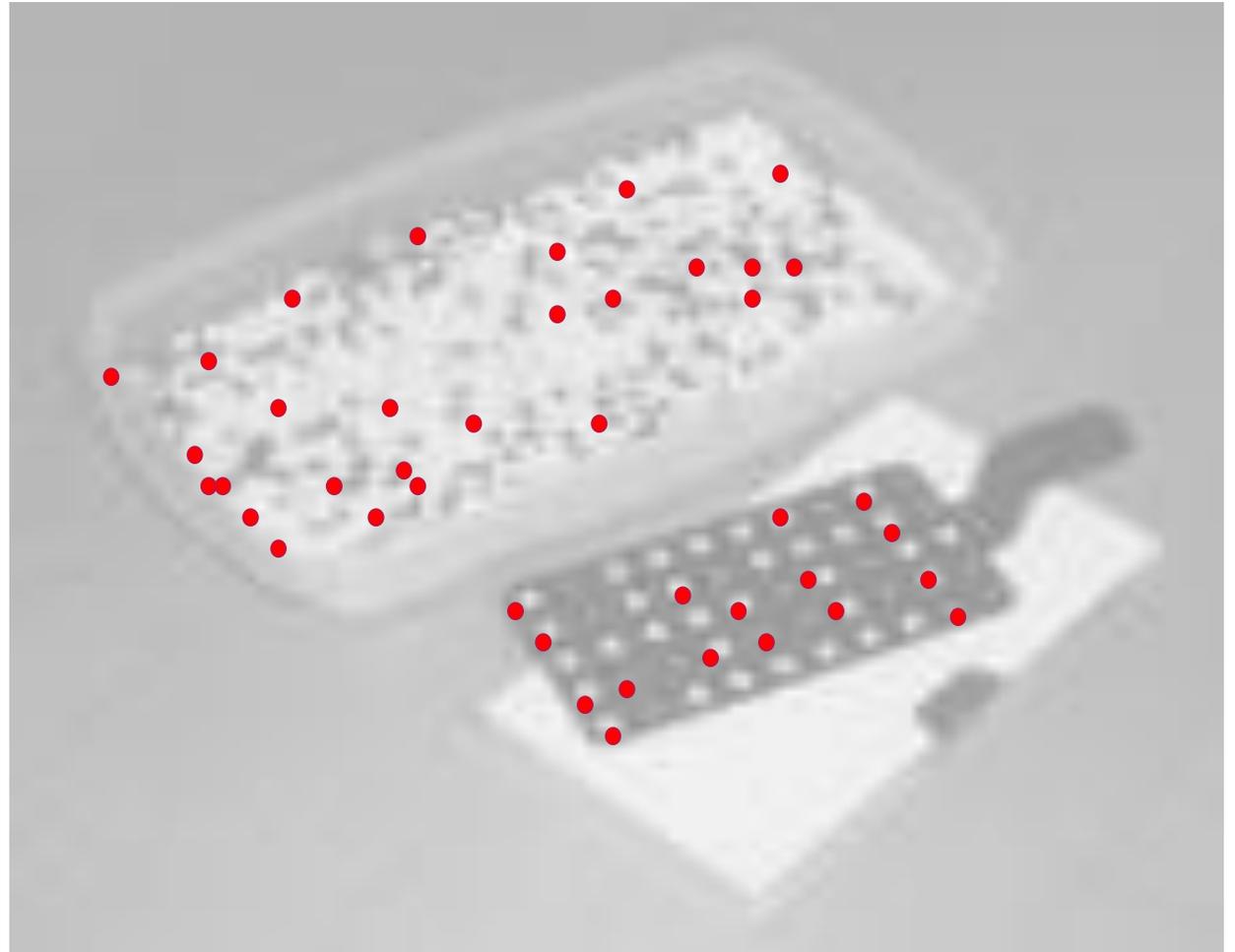


Parable of the Red Beads

All of Deming's key points are contained in the parable of the Red Beads



W Edwards Deming
(1900 – 1993)



10 Vacancies in the White Bead Company

- 1 Recorder: able to write neatly and to perform simple arithmetic
- 1 Chief Inspector: able to compare figures
- 2 Inspectors: able to make decisions and to write clearly
- 4 willing Workers: able to identify colors and count, willing to obey orders.



Results: Number of **Red** beads by worker

Willing Worker	Day 1	Day 2	Day 3	Day 4
SUM				



Reflections on the Red Bead Simulation

What were your reactions to this simulation

Did you have an Aha! Moment?

Did the Manager do anything right?

What are your Red Beads?

Team up, discuss your reflections with neighbor

Report out



Some Reflections on the Red Beads



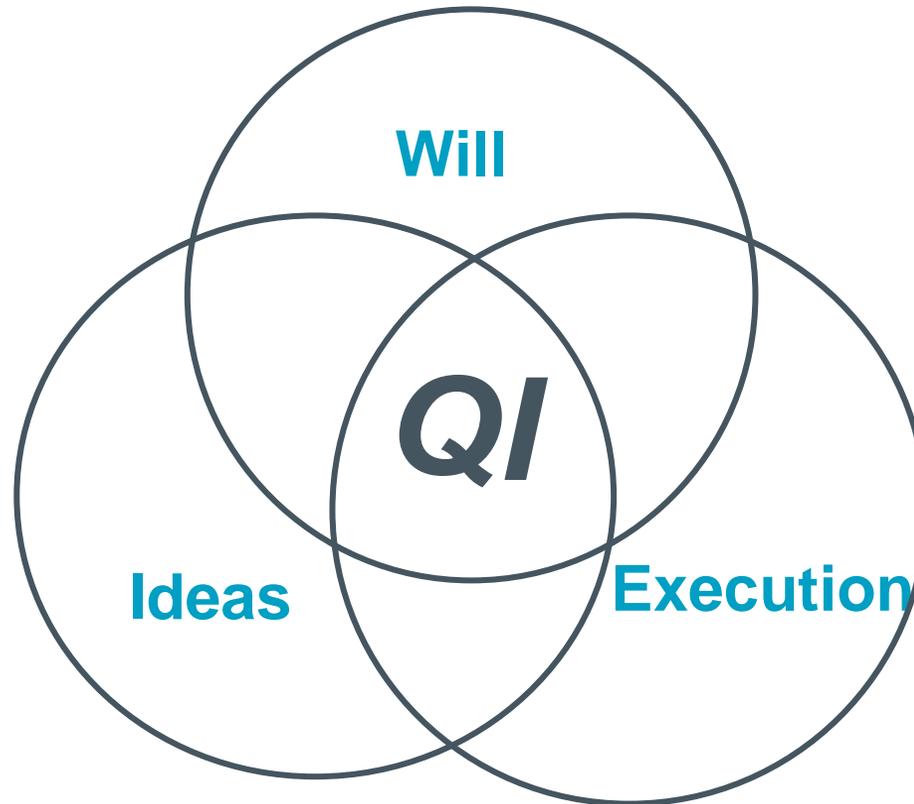
- The cause of the defects was the red beads in the incoming material
- The willing workers are helpless to improve quality.
- Variation in red beads was system based, not individual performance based.
- The performance of an individual on any one day is useless as a basis for evaluation or prediction.
- The system was stable. Output and costs were predictable.
- The workers put all they had into the process - to no avail.
- Ranking, goals, pay for performance, appraisal systems... did not help
- The system was rigid, management would not listen..



The Essential Drivers of Improvement

Having the Will (desire) to change the current state to one that is better

Developing Ideas that will contribute to making outcomes better



Applying theories, tools and techniques that enable the Execution of the ideas



Juran Trilogy



Joseph M. Juran
(1904 - 2008)

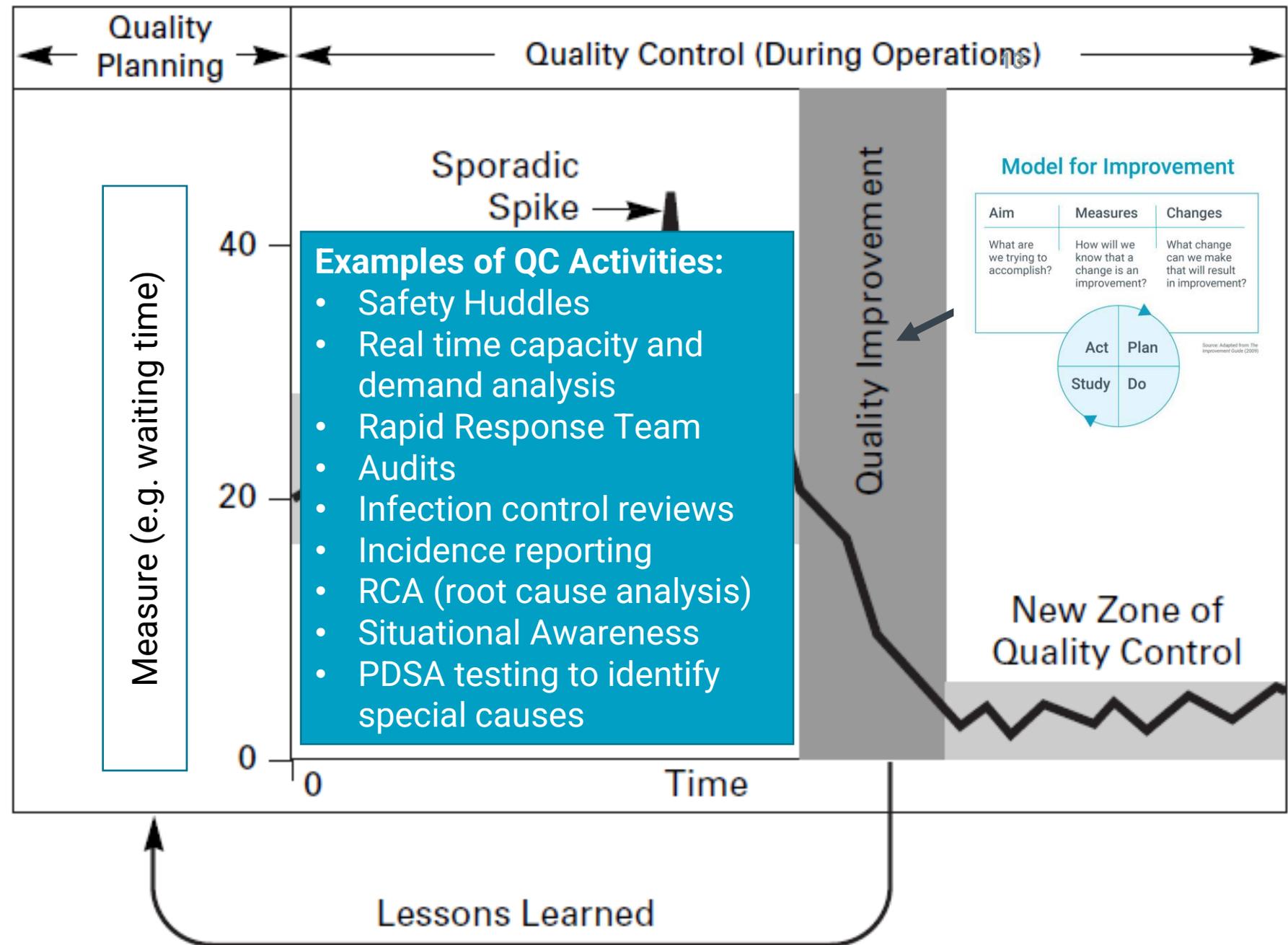


FIGURE 4.1 The Juran trilogy diagram. (Juran Institute, Inc., Wilton, CT.)

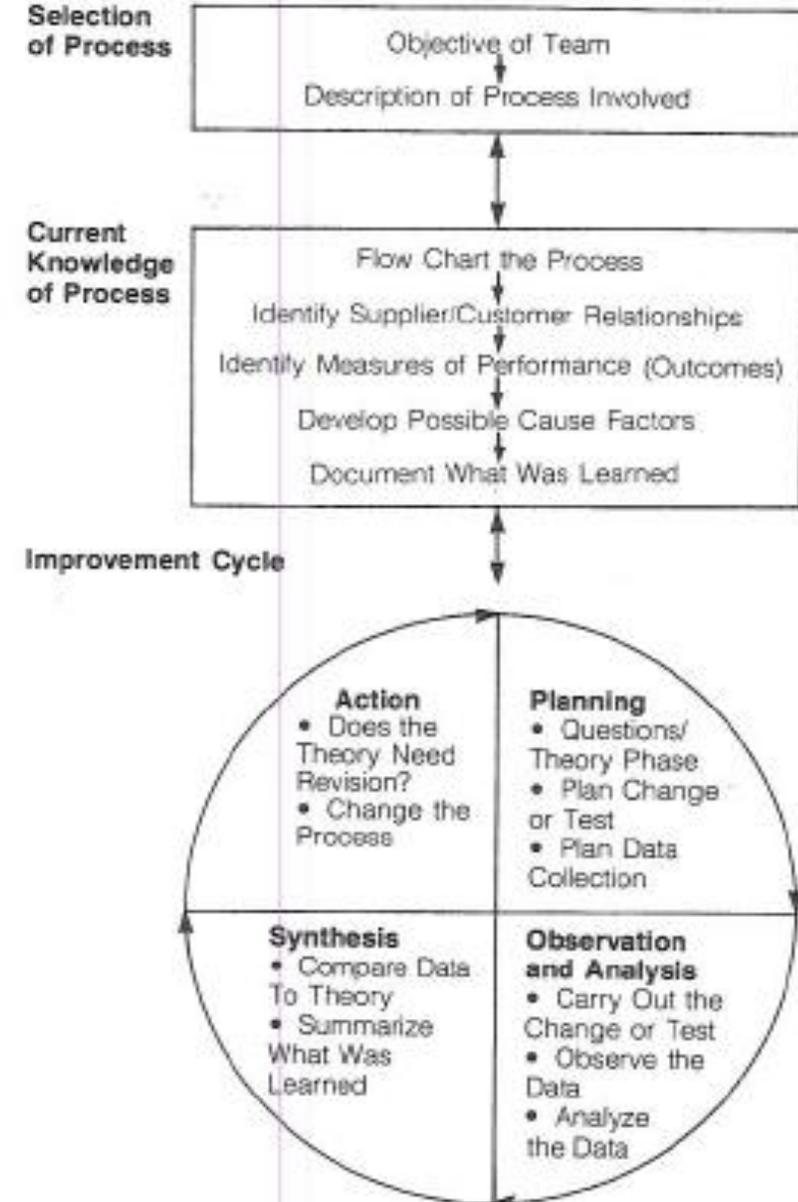
First Publication of MFI, 1987

Process Improvement

A step-by-step approach to analyzing and improving a process

by
Ronald D. Moen and Thomas W. Nolan

Figure 5.
Strategy for process improvement



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Figure 3. The Model for Improvement

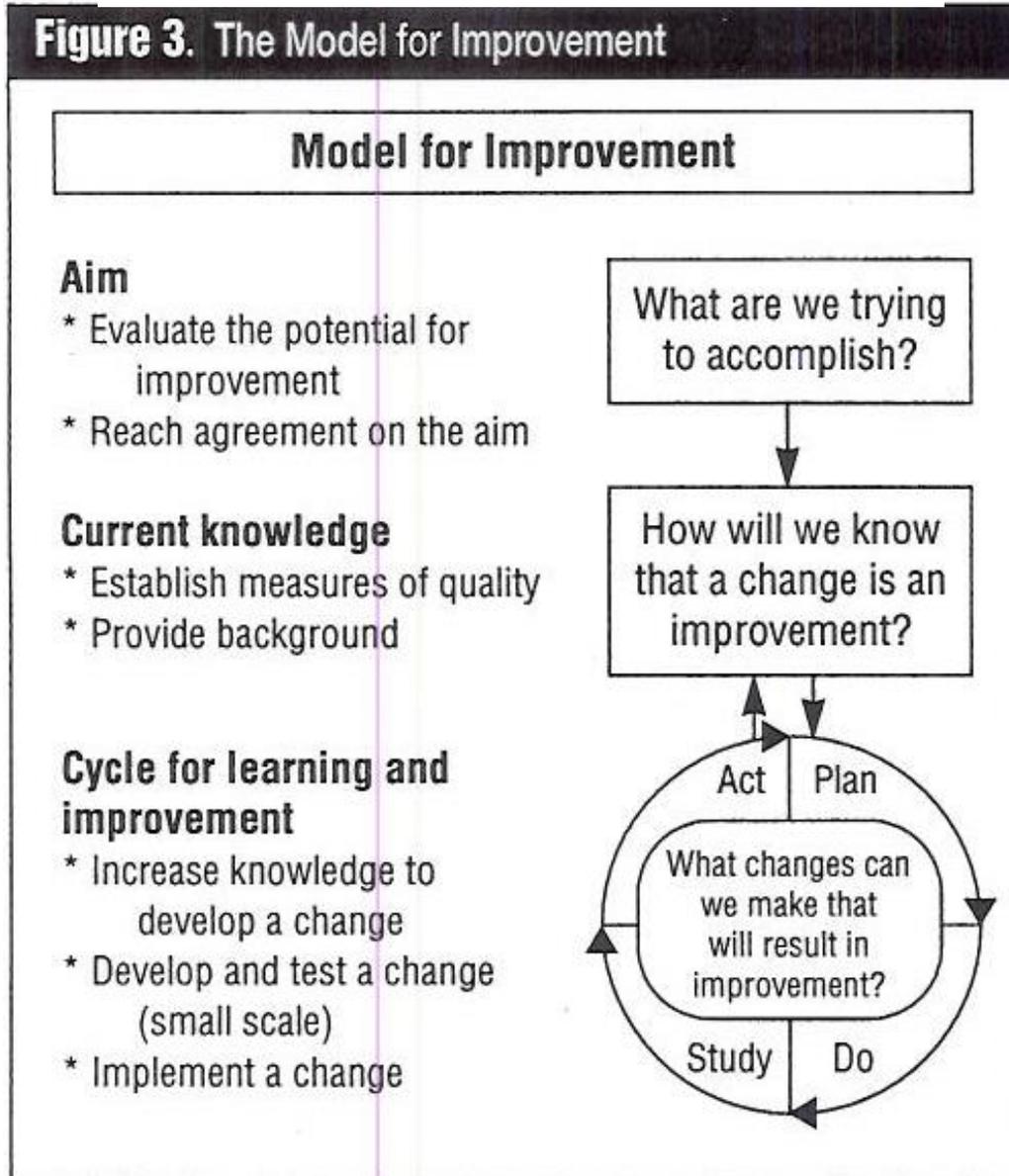
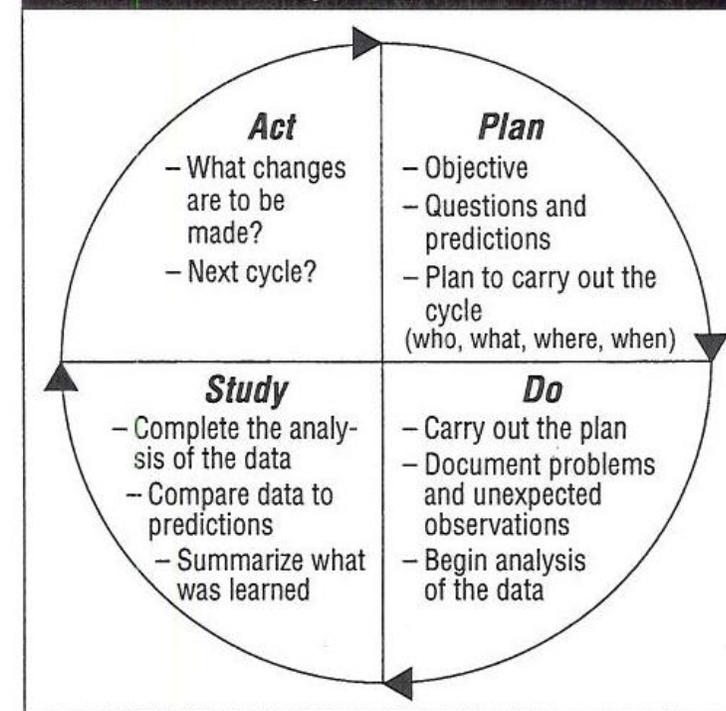
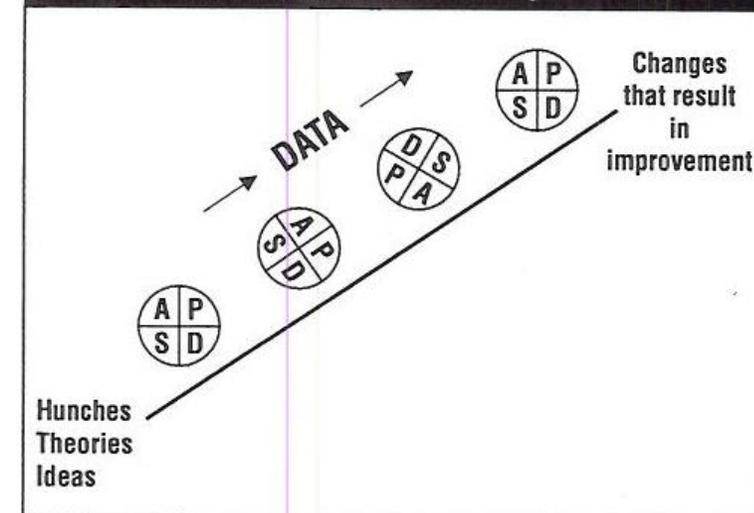


Figure 1. The PDSA Cycle



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Figure 2. Repeated Use of the PDSA Cycle



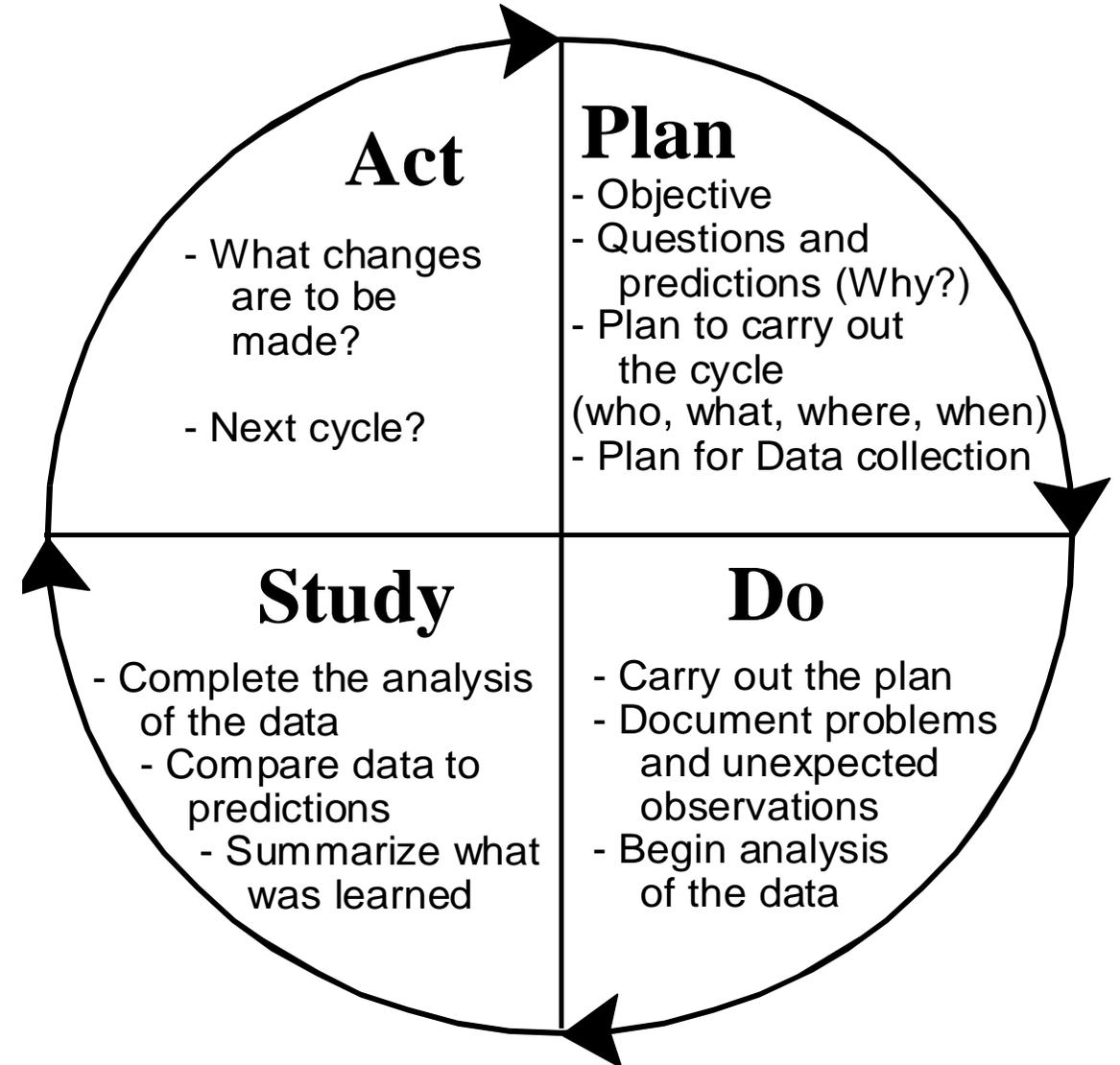
The PDSA Cycle for Learning and Improvement

Model for Improvement

Aim	Measures	Changes
What are we trying to accomplish?	How will we know that a change is an improvement?	What change can we make that will result in improvement?

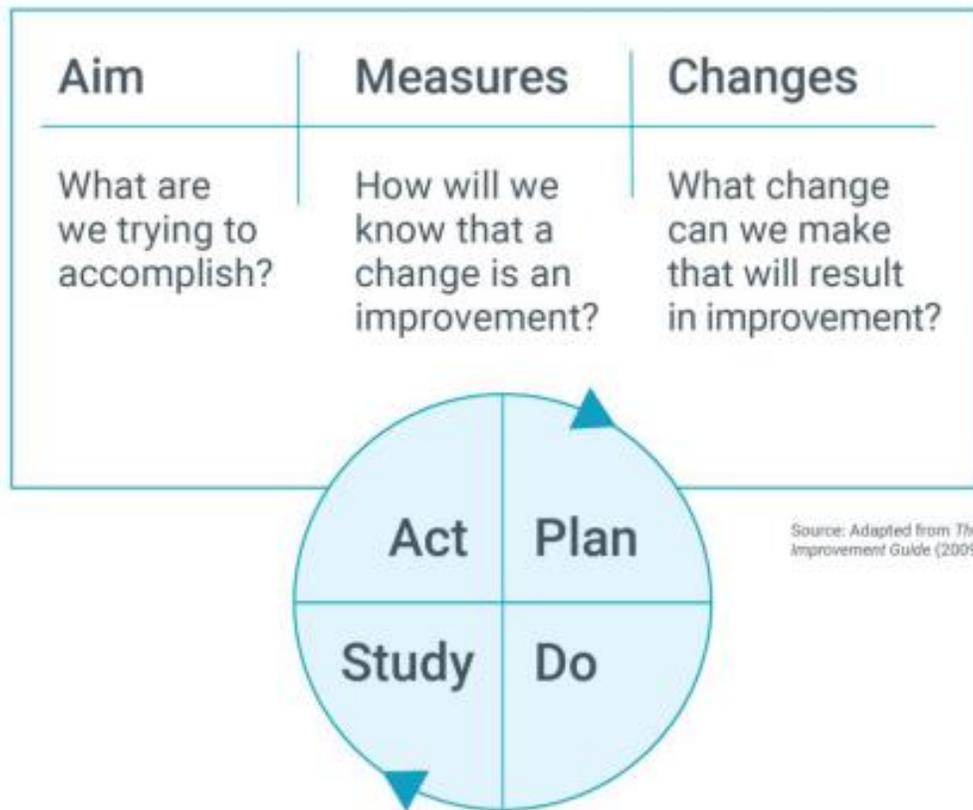


Source: Adapted from The Improvement Guide (2009)



Six Skills to Support Improvement

Model for Improvement

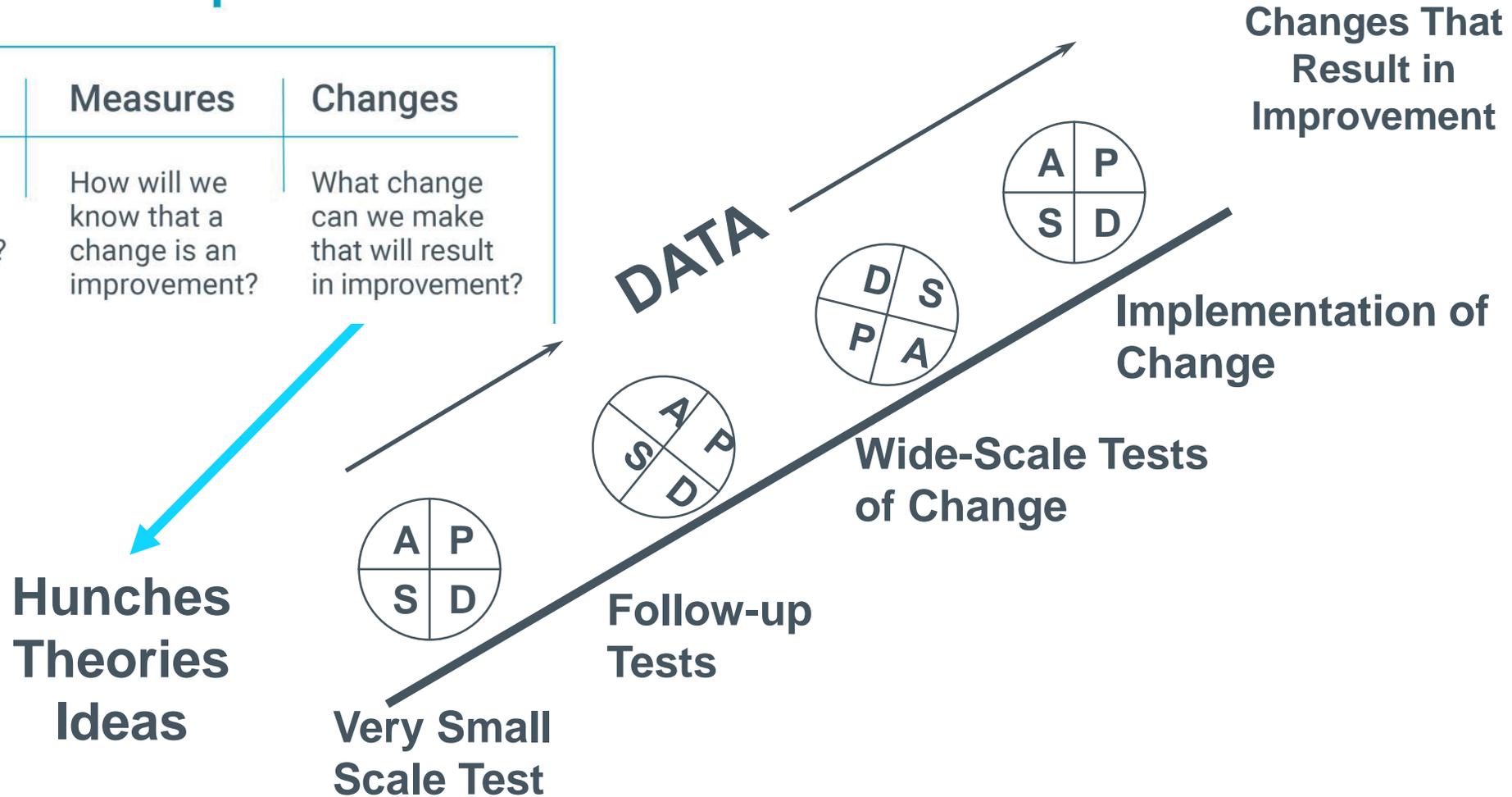


- Supporting Change with Data
- Developing a Change
- Testing a Change
- Implementing a Change
- Spreading Improvements
- The Human Side of Change

MFI with Repeated Use of the PDSA Cycle

Model for Improvement

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The Science of Improvement

