



A short history of Improvement Science

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Overview

- What is Improvement Science?
- How did it develop?
- What does this mean for us?

Improvement Science is not...

Research

- Designed to find out what is possible
- Control context to reduce its impact as a variable

Audit

- Designed to find out what is actual
- Time between measurement may be long

Improvement Science is...



- A method of reducing gap between what is actual and what is possible
- A method of narrowing gap between research and practice
- Focuses on ‘what works best’ to improve quality
- Always exploring what helps/hinders improvement

Health Foundation, Improvement Science Research Scan, 2011.

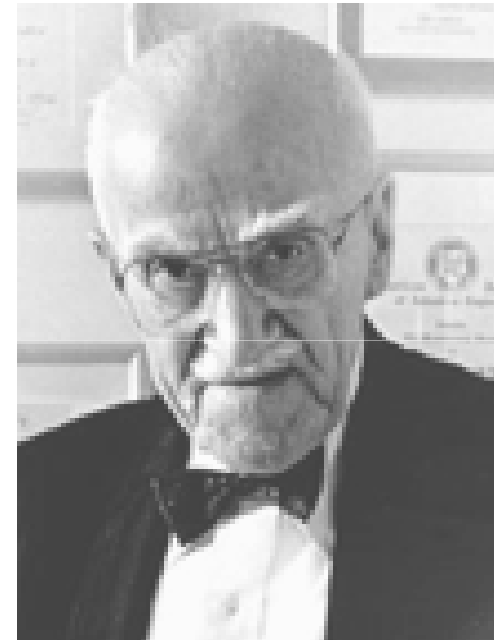
Where are the roots of Improvement Science?



**W. Edwards
Deming
1900 - 1993**

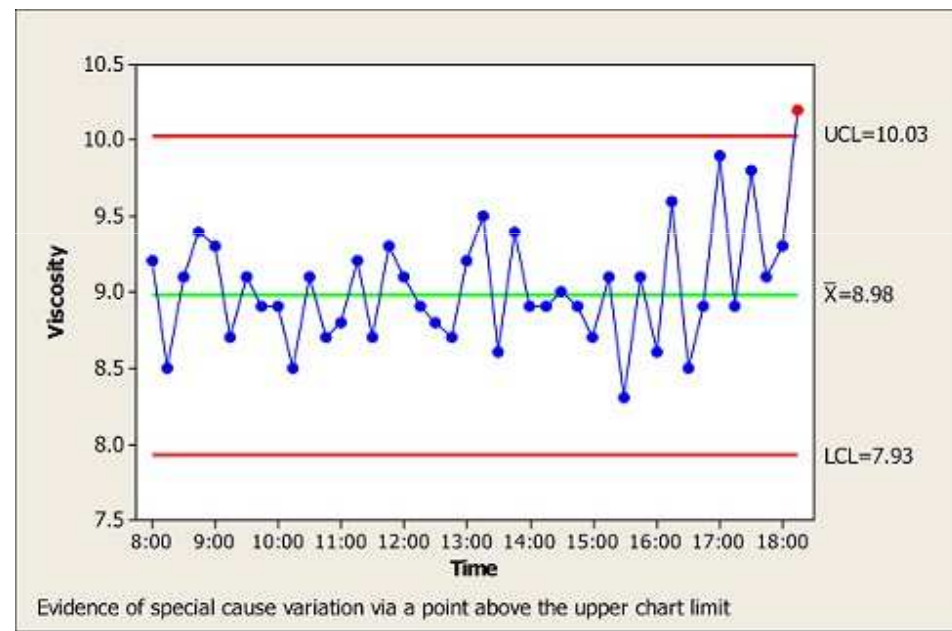


**Walter
Shewhart
1891 - 1967**



**Joseph Juran
1904 - 2008**

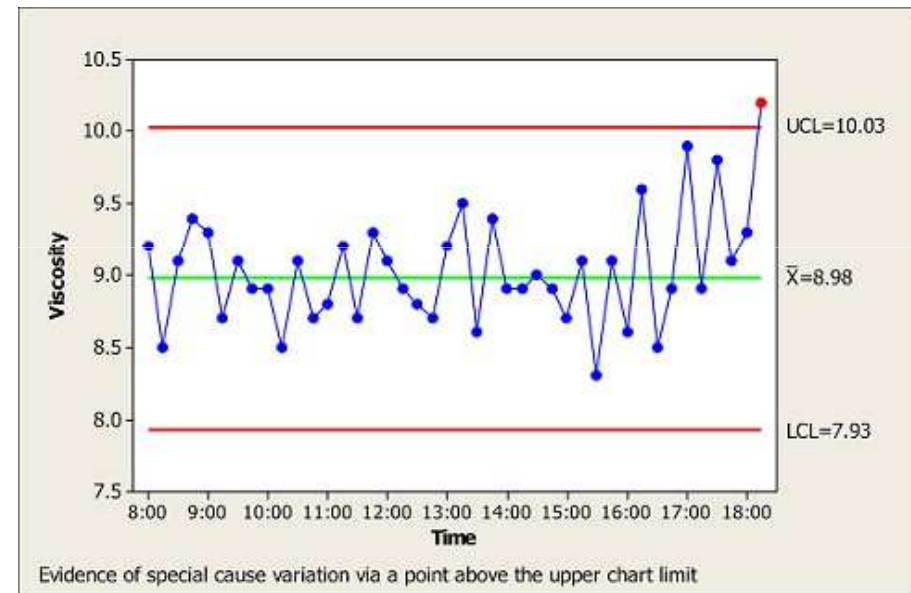
Walter Shewart's contribution?



Statistical Process Control

Understanding Variation

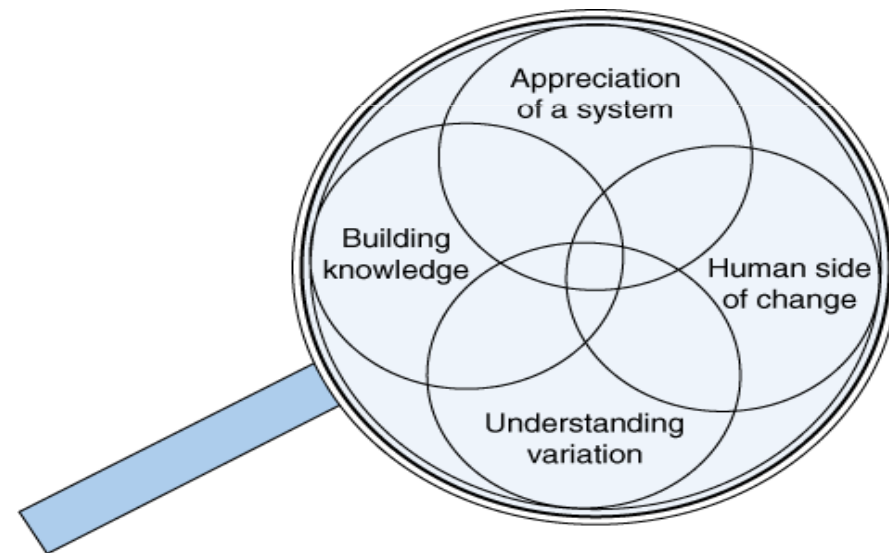
- Common cause?
- Special cause?



Deming- the father of Improvement Science



What's the method?



Source: McKean S, Ross JJ, Dressler DD, Brotman DJ, Ginsberg JS: *Principles and Practice of Hospital Medicine*: www.accessmedicine.com

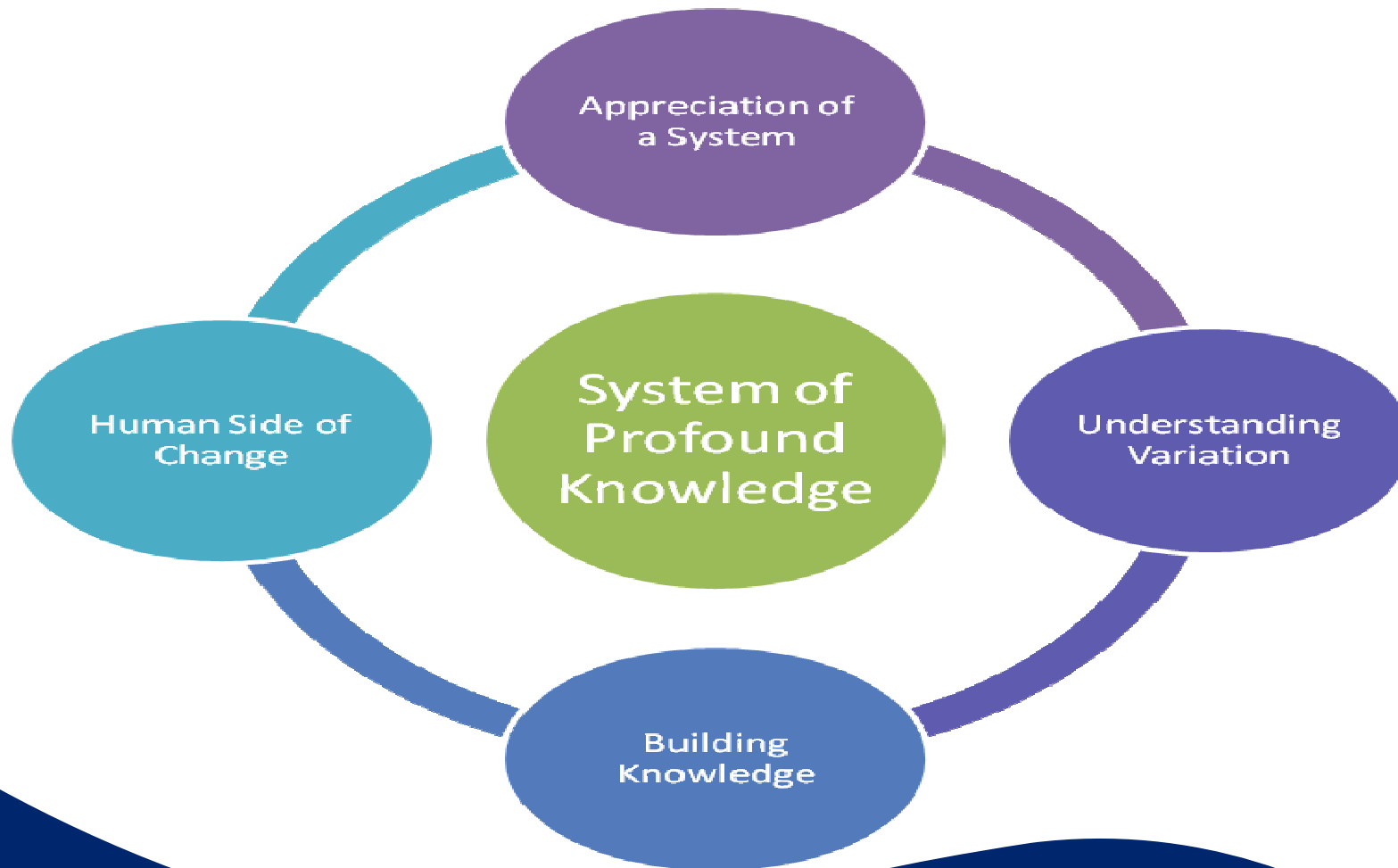
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**Subject Matter
Knowledge**

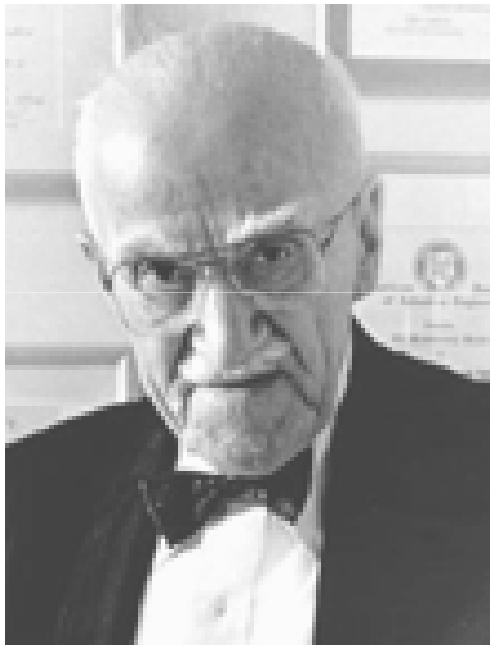
Improvement

**Profound
Knowledge**

Deming's System of Profound Knowledge

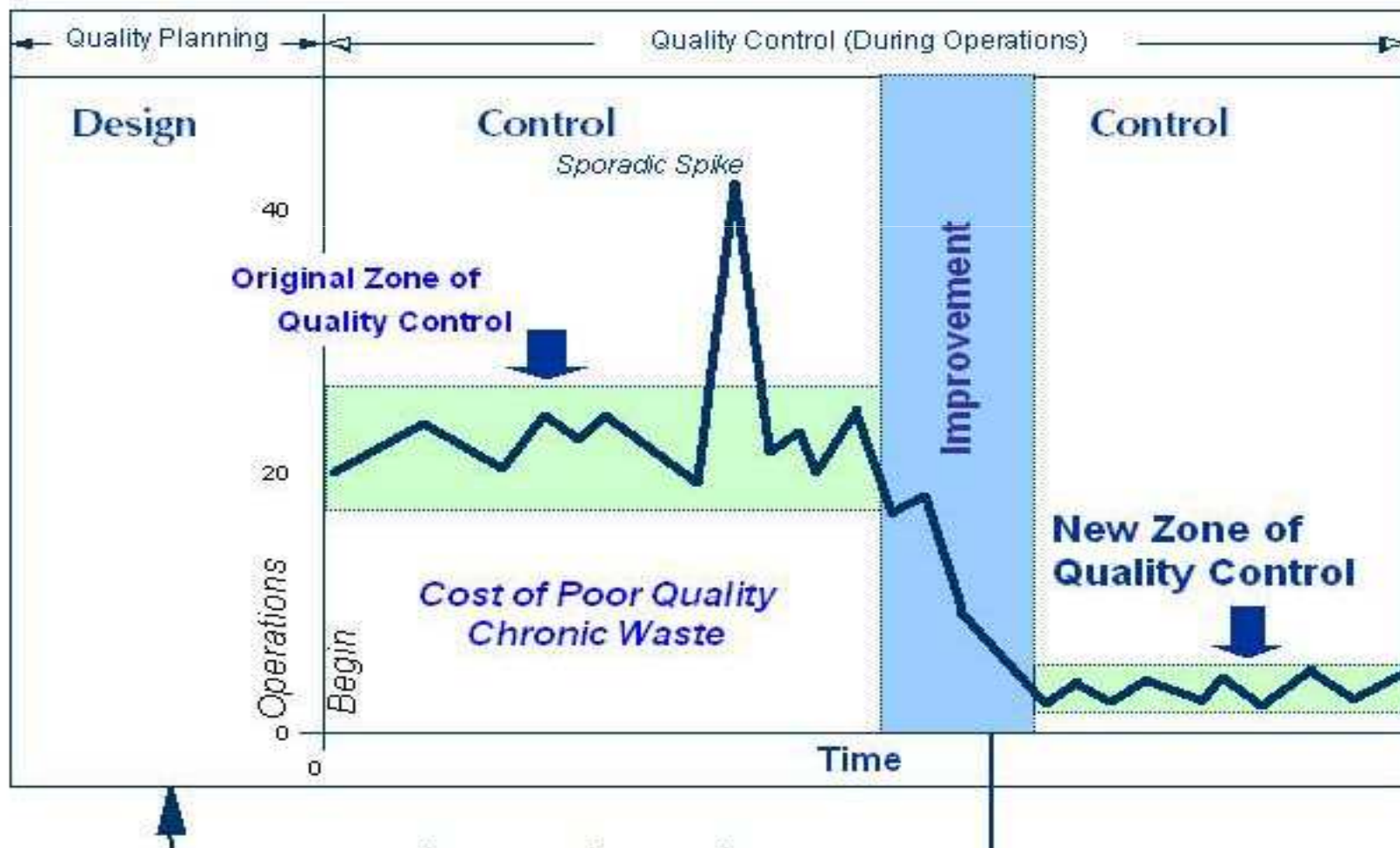


Three legged stools, trilogies and Juran

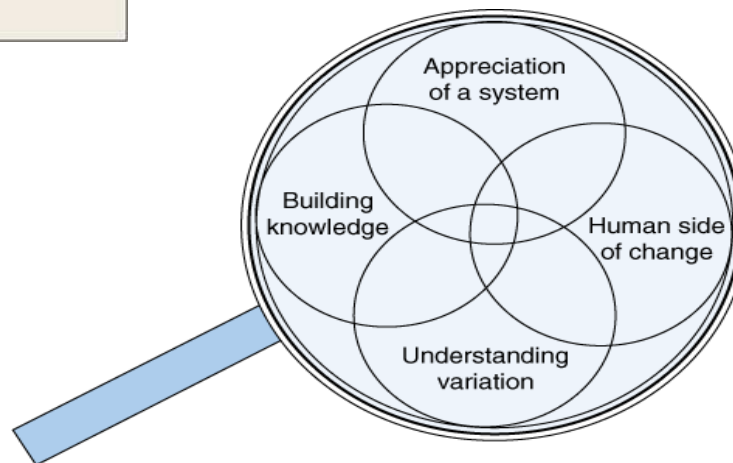
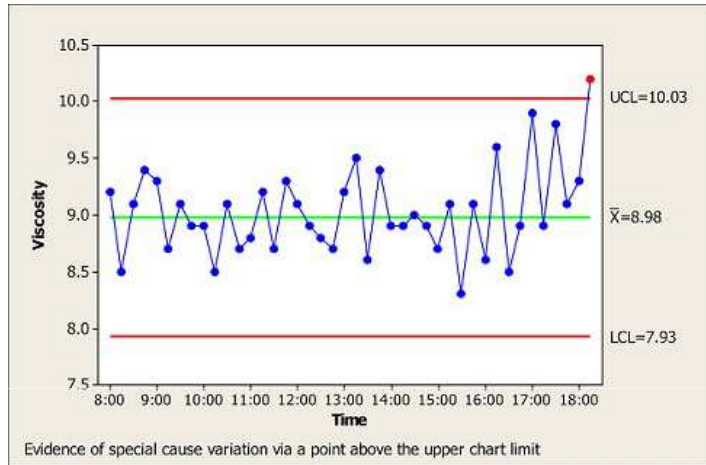


Juran Trilogy

THREE UNIVERSAL PROCESSES OF THE JURAN TRILOGY®



Summary of History of Improvement Science



Source: McKean S, Ross JJ, Dressler DD, Brotman DJ, Ginsberg JS: *Principles and Practice of Hospital Medicine*: www.accessmedicine.com

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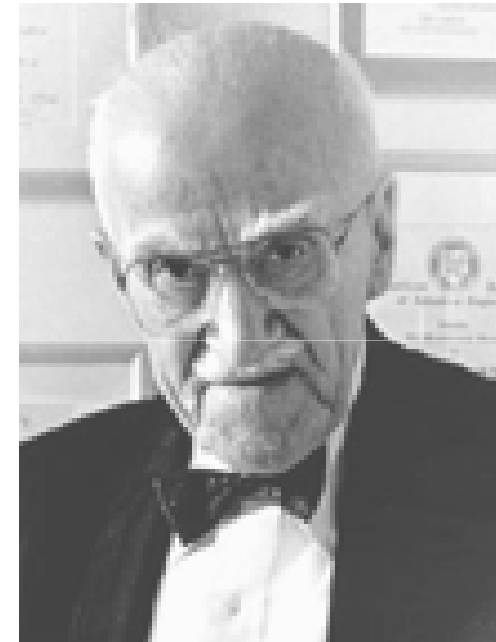
Three men to remember



**W. Edwards
Deming**
1900 - 1993



**Walter
Shewhart**
1891 - 1967



Joseph Juran
1904 - 2008

Questions they asked (paraphrased)

- Shewart – there is always variation, what kind of variation, and how do you know?
- Deming – what is your method?
- Juran – do you understand your processes?

What does this mean for us?

- Tools and techniques
 - From Statistical Process Control to Fishbone Diagrams
- Develop Profound Knowledge
 - Expertise in Improvement Science
- Getting back to basics, what is the process and how to understand it – plan, improve, control

What is Quality Improvement?

Quality Improvement is defined as the application of a ***systematic*** approach that uses ***specific techniques*** to improve quality.

Health Foundation 2014

Many methods...why is it
different for you in your
context?

Challenges of an Improvement Leader

Are you too busy to improve?

No
thanks!

We are
too busy

