

Resources on A3s and Problem Solving

Books

- Cindy Jimmerson, *A3 Problem Solving for Healthcare: A Practical Method for Eliminating Waste*, CRC Press, 2007. (Practical guide written specifically for healthcare)
- John Shook, *Managing to Learn: Using the A3 Management Process to Solve Problems, Gain Agreement, Mentor, and Lead*, Lean Enterprise Institute, 2008. (Description of how A3s may be used as a management process to foster individual and organizational learning)
- Art Smalley, *The Four Types of Problems*, Lean Enterprise Institute, 2018. (Description of 4 main categories of problems, and how to approach each: trouble shooting, gap from standard; target condition and open ended/innovation).
- Derek K. Sobek III and Art Smalley, *Understanding A3 Thinking*, CRC Press, 2008. (Detailed guide on writing and reviewing A3s of various types, including templates, examples and practical advice)

Chapters and Articles

- Jeffrey K. Liker and David Meier, *The Toyota Way Fieldbook: A Practical Guide for Implementing Toyota's 4 Ps*, Chapter 18, "Telling the Story Using an A3 Report", McGraw-Hill, 2006.
- Mark Graban, *Lean Hospitals*, Chapter 7, "Proactive Root Cause Problem Solving", CRC Press, 2012.
- Roberto Priolo, "What is A3 Thinking?" *Planet Lean: The Lean Global Network Journal*. March 2, 2020. <https://planet-lean.com/what-is-a3-thinking/>

A3 Training Opportunities

- Lean Enterprise Institute, <https://www.lean.org/>
- Catalysis, <https://createvalue.org/>
- University of Michigan College of Engineering ISD, <http://isd.engin.umich.edu/>

[Web Resources - Quality Improvement Tools](#)

All of the tools included in the A3 content guide are further explained, with examples and templates provided, at one or more of these websites:

- [ASQ \(American Society for Quality\). The Seven Basic Quality Tools for Process Improvement: http://asq.org/learn-about-quality/seven-basic-quality-tools/overview/overview.html](http://asq.org/learn-about-quality/seven-basic-quality-tools/overview/overview.html)
- [Institute for Healthcare Improvement. IHI Quality Improvement Essential Toolkit: http://www.ihl.org/resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx](http://www.ihl.org/resources/Pages/Tools/Quality-Improvement-Essentials-Toolkit.aspx)
- Minnesota Department of Health. Public Health and Quality Improvement Resources and Tools: <https://www.health.state.mn.us/communities/practice/resources/phqitoolbox/index.html>