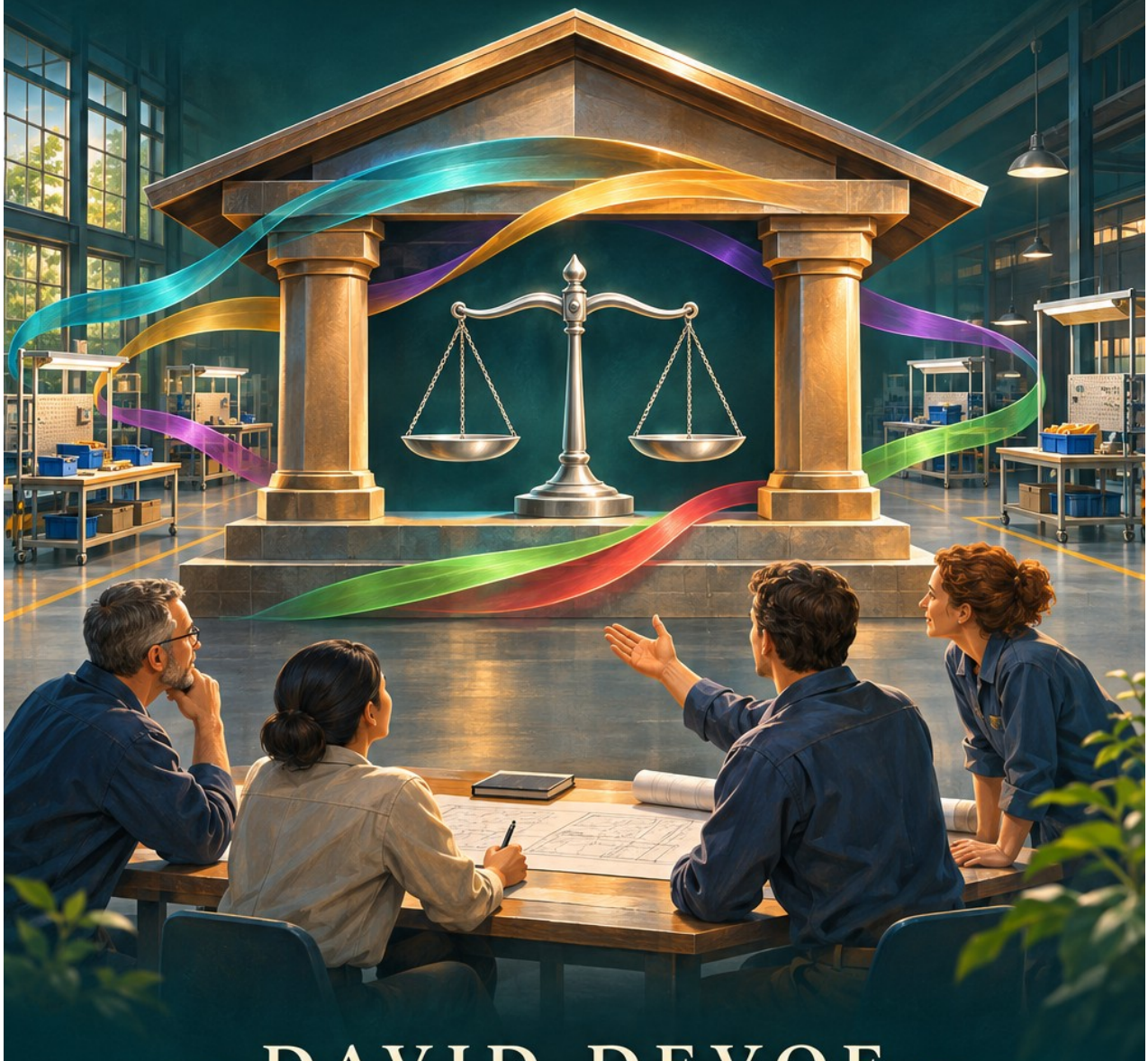
LeanTPS™

CHAPTER 8

APPLICATION OF LEAN TPS

Applying the Complete System



DAVID DEVOE

About this chapter

Application of Lean TPS explains how leaders and practitioners bring the disciplines of the preceding chapters into one operating system. The chapter follows the work from customer requirement through planning, preparation, execution, abnormality response, and verified improvement. A reader can use the chapter independently because the essential relationships are explained where they are needed. Readers following the complete book will recognize how each earlier chapter supplies a necessary part of the application.

The sequence of the book

Chapter 1 introduces Lean TPS The Thinking People System and its management responsibilities. Chapter 2 establishes 5S Thinking. Chapter 3 develops Standardized Work. Chapter 4 develops Discovering Muda. Chapter 5 explains Jidoka, Chapter 6 develops Kaizen, and Chapter 7 explains Just In Time. Chapter 8 brings these subjects together through implementation decisions, examples, and continuing leadership practice.

Sources and examples

The main application source is my retained Employee Training Part II presentation on TPS Application at Raymond. The presentation records teaching, proposed changes, examples of physical arrangements, and leadership responsibilities. A photograph establishes the arrangement visible in the archive; a proposed state does not establish that every change was implemented or that a particular result was achieved. The numerical process and information-work examples in this chapter are constructed teaching illustrations. Their assumptions and limitations are stated with the calculations. They do not report Toyota, Raymond, or client performance.

Publication information

Copyright © 2026 David Devoe. All rights reserved. Revised application chapter, 11 November 2026. Independent publication. The chapter develops the author's interpretation and application of the supplied teaching relationships. Use the applicable workplace Safety, Quality, engineering, and operating requirements when considering changes to actual work. Source-specific arrangements and constructed calculations require confirmation under the conditions of the intended application.

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Application of Lean TPS

8.0 Applying the Production System as a Whole

Application begins when an organization accepts responsibility for the conditions under which work proceeds. A production target identifies an expected result, but the target does not establish whether people have the required information, materials, equipment, method, or support. Lean TPS connects those operating conditions with the customer requirement and the decisions that keep execution under control. The organization must be able to explain what work is authorized, how the work should proceed, what requires interruption, and who restores a dependable condition.

The preceding chapters establish the disciplines needed to answer those questions. 5S Thinking makes the environment usable and its departures recognizable. Standardized Work establishes the reference for the repeatable operator method. Discovering Muda examines the effort and loss within that method and its surrounding conditions. Jidoka requires a protective response when correct execution cannot continue. Kaizen develops and verifies a better method. Just In Time links capable processes to demand and replenishment. Application requires these relationships to function during ordinary work, including the periods when demand changes or the system encounters difficulty.

My application presentation at Raymond uses a relationship map to connect planning and leveled production with visualization, Jidoka, improvement, and waste reduction. The map presents Quality, cost, and lead time as related results. Standardized Work provides a common operating reference across the relationships. The teaching implication is that an isolated technique cannot carry responsibilities that belong to the surrounding system. A signal depends on a response, and a replenishment rule depends on a capable supplying process. [1, slides 1–2]

Toyota's public description identifies Jidoka and Just In Time as the two pillars of TPS and places making work easier for people within its purpose. The application developed here adds the explicit management questions needed to examine those relationships in a workplace. These questions express the governance argument of this book rather than a quotation of Toyota policy. [5]

The difference between installation and application

An organization can install racks, mark locations, publish work instructions, and place a display beside a line while leaving the reasons for abnormal work unresolved. Application becomes visible when those arrangements change the decisions made during execution. The correct component is available in a defined quantity. A person can distinguish the accepted method from an unapproved workaround. A missing condition produces a clear signal, and the appropriate leader responds before uncertain output passes onward.

Each implementation decision therefore needs an operating explanation. A rack should improve presentation and replenishment under specified conditions. A board should identify a departure that someone has responsibility to address. A standard should describe the method people are expected and able to perform. The evidence belongs in the work and its results, with records that preserve what was learned.

Reading an application through its operating relationships

A useful way to examine an application is to follow one unit of work and every decision needed to complete it correctly. Begin with the authority to release the unit, then identify the information and physical conditions required by the first operation. Follow the unit through each transfer and ask what tells the receiving person that the preceding work is complete. Continue through verification, delivery, and any feedback from the receiver. The examination should expose the responsibilities between departments as well as the activities within them.

Following one unit also reveals the difference between a documented system and a functioning system. A procedure may assign replenishment to a material handler, while the actual operator leaves the station whenever stock runs low. A chart may specify three pieces of standard in-process stock, while the actual sequence requires an additional unidentified piece to remain usable. A board may show a response owner who is normally occupied elsewhere. These discrepancies describe the current operating arrangement and belong in the study before a new method is proposed.

The application should be understood at two connected levels. At the immediate level, the method must produce an acceptable unit under the conditions of use. At the management level, the organization must sustain those conditions and revise them when the evidence changes. An excellent local sequence can still fail when scheduling releases an unsuitable mix, maintenance cannot respond, or instruction does not reach a replacement