

An Agile Toolkit: An Agile Toolkit
Industrial Engineering and Operations Management
Factory Physics for Managers: How Leaders Improve Performance in a Post-Lean Six Sigma World
Outstanding Practices and Cases
Follow the Learner

Value Stream Mapping to Add Value and Eliminate Muda
The basics of supply chain management

Shingo Research and Professional Publication Award recipient This workbook explains in simple, step-by-step terms how to introduce and sustain lean flows of material and information in pacemaker cells and lines, a prerequisite for achieving a lean value stream. A sight we frequently encounter when touring plants is the relocation of processing steps from departments (process villages) to product-family work cells, but too often these "cells" produce only intermittent and erratic flow. Output gyrates from hour to hour and small piles of inventory accumulate between each operation so that few of the benefits of cellularization are actually being realized; and, if the cell is located upstream from the pacemaker process, none of the benefits may ever reach the customer. This sequel to Learning to See (which focused on plant level operations) provides simple step-by-step instructions for eliminating waste and creating continuous flow at the process level. This isn't a workbook you will read once then relegate to the bookshelf. It's an action guide for managers, engineers, and production associates that you will use to improve flow each and every day. Creating Continuous Flow takes you to the next level in work cell design where you'll achieve even greater cost and lead time savings. You'll learn: * where to focus your continuous flow efforts * how to create much more efficient work cells and lines * how to operate a pacemaker process so that a lean value stream is possible * how to sustain the gains, and keep improving Creating Continuous Flow is the next logical step after Learning to See. The value-stream mapping process defined the pacemaker process and the overall flow of products and information in the plant. The next step is to shift your focus from the plant to the process level by zeroing in on the pacemaker process, which sets the production rhythm for the plant or value stream, and apply the principles of continuous flow. Every p

Winner of the Shingo Publication Award Accelerate your organization to win in the marketplace. How can we apply technology to drive business value? For years, we've been told that the performance of software delivery teams doesn't matter—that it can't provide a competitive advantage to our companies. Through four years of groundbreaking research to include data collected from the State of DevOps reports conducted with Puppet, Dr. Nicole Forsgren, Jez Humble, and Gene Kim set out to find a way to measure software delivery performance—and what drives it—using rigorous statistical methods. This book presents both the findings and the science behind that research, making the information accessible for readers to apply in their own organizations. Readers will discover how to measure the performance of their teams, and what capabilities they should invest in to drive higher performance. This book is ideal for management at every level.

This proceedings volume gathers together selected peer-reviewed papers presented at the second edition of the XXVI International Joint Conference on Industrial Engineering and Operations Management (IJCIEOM), which was virtually held on February 22-24, 2021 with the main organization based at the Pontifical Catholic University of Rio de Janeiro, Brazil. Works cover a range of topics in industrial engineering, including operations and process management, global operations, managerial economics, data science and stochastic optimization, logistics and supply chain management, quality management, product development, strategy and organizational engineering, knowledge and information management, sustainability, and disaster management, to name a few. These topics broadly involve fields like operations, manufacturing, industrial and production engineering, and management. This book can be a valuable resource for researchers and practitioners in optimization research, operations research, and correlated fields.

Gemba is a Japanese word meaning the actual place where value-creating work happens. Many leaders use gemba only for solving problems, visiting only when there is an issue. Others practice gemba walks on a daily basis to follow up and monitor the situation. However, Toyota believes that leaders truly develop through daily experiences at the gemba. In reality, gemba is a principle for managing, developing and improving people and processes. It is a valuable tool that helps lean practitioners learn the true facts so they can base management decisions on the actual situation.

A Practitioner's Guide

Just in Time Factory

The Lean Builder: A Builder's Guide to Applying Lean Tools in the Field

Manufacturing and Quality Management

Practical Lean Techniques for Building to Demand, Second Edition

Recent Advances in Information Systems and Technologies

Lean transformations is your start-to-expert guide for Lean. It describes the crucial steps to implement lean tools which directly lead to measurable productivity improvements, while minimizing investments. Part one of the book describes the Leadership skills required to make Lean work for the organization in the long term. Part two describes why Lean can help you, your team and your organization in process improvement, based on the history and learnings of other organizations. Maturity, where the crucial steps of different tools are highlighted, and more importantly: how you use the tools to reach your organizational targets. Part four is focused on Value Stream Mapping, where the 8 step approach will help you identify the most important process design improvements to improve total performance. Part five describes another set of lean tools in more detail. Lean Transformations will give you the theory and practical steps you need to create a culture

continuously use lean tools to find the next improvement. Get your copy now to reap the real benefits of lean, starting today!

Lean transformations are decidedly more challenging when the math is inconsistent with lean principles, misapplied, or just plain wrong. Math should never get in the way of a lean transformation, but instead should facilitate it. Lean Math is the indispensable reference for this very purpose. A single, comprehensive source, the book presents standard and specialized approaches to tackling the math required of lean and six sigma practitioners across all industries—seasoned and new

thoughtfully organized entries. Ten chapters cover system-oriented math, time, the "-ilities" (availability, repeatability, stability, etc.), work, inventory, performance metrics, basic math and hypothesis testing, measurement, experimentation, and more. Two appendices cover standard work for analyzing data and understanding and dealing with variation. Practitioners will quickly locate the precise entry(ies) that is relevant to the problem or continuous improvement opportunity at hand.

lean principles, formulas, examples, figures, and tables, but also tips, cautions, cross-references to other associated entries, and the occasional 'Gemba Tale' that shares real-world experiences. The book consistently encourages the practitioner to engage in math-assisted plan-do-check-act (PDCA) cycles, employing approaches that include simulation and "trystorming." Lean Math truly transcends the "numbers" by reinforcing and refreshing lean thinking for the very purpose of Figure

O'Connor provide both the novice and experienced lean practitioner a comprehensive, common-sense reference for lean math. For example, I know that our Lean Support Office team would have gladly used dozens of Lean Math entries during a recent lean management system pilot. The concepts, context, and examples would have certainly helped our execution and provided greater clarity during our training activities. Lean Math is a must have book for Lean Support Office people!

Aircraft Group "A practical math book may sound like an oxymoron, but Lean Math is both pragmatic and accessible. Hamel and O'Connor do an excellent job keeping the math as simple as possible, while bringing lean principles to the forefront of the discussion. The use of insurance and healthcare industry examples especially helps simplify the translation for lean practitioners in non-manufacturing industries. Readers will be able to use the numerous tables and figures to clearly illustrate

reference book that every lean practitioner or Black Belt should have in their library!" —Peter Barnett, MBB, Liberty Management System Architect, Liberty Mutual Insurance "Lean Math is a comprehensive reference book within which the lean practitioner can quickly find straightforward examples illustrating how to perform almost any lean calculation. Equally useful, it imparts the importance of the relevant lean principal(s). While coaching some recent transformation efforts, I put

practitioners to reference it during their work. They were promptly rewarded with deeper insight and effectiveness—a reflection of this book's utility and value to the lean practitioner." —Greg Lane, international lean transformation coach, speaker, and author of three books including, "Made-to-Order Lean: Excelling in a High-Mix, Low-Volume Environment" "While the technical, social, and management sciences behind lean must be learned by doing, their conceptual bases are absolutely

crucial to overcoming common blind spots ingrained by traditional practice. Hamel and O'Connor's text is a comprehensive and readable resource for lean implementers at all levels who are seeking a deeper understanding of lean tools and systems. Clear diagrams and real-world examples create a bridge for readers between theory and practice—theory proven by practice. If math is the language of science, then Lean Math is indeed the language of lean science." —Bruce Hamilton, Emeritus

Director, National Operations, QMS Continuous Improvement, Quest Diagnostics "Too many lean books dwell on principles, but offer little to address critical how-to questions, such as, 'How do I use these concepts to solve my specific problem?' With plain English explanations, simple illustrations, and examples across industries, Lean Math bridges a long-standing gap. Hamel and O'Connor's Lean Math is sure to become a must-have reference for every lean practitioner working to improve

Fuchs, Executive Director, Maryland World Class Consortia, Past Chairman, Lean Certification Oversight Committee "Lean Math fills a huge gap in the continuous improvement library, helping practitioners to translate data, activities, and ideas into meaningful information for effective experimentation and intelligent decisions. This reference comes at a critical time for the healthcare industry as we struggle to improve quality, while controlling costs. Though we don't make widgets, or

provided in this reference. The numerous examples, as well as the Gemba Tales scattered throughout the book, bring life to the principles and formulas. Lean Math is impressive in both scope and presentation of content." —Tim Pettry, Senior Process Improvement Specialist, Cleveland Clinic "Lean Math is a great book for those times when only the correct answer will do. The math, along with the Gemba Tales, are helpful for those in the midst of the technical aspects of a transformation

haven't used it in a while." —Beau Keyte, organization transformation and performance improvement coach, author of two Shingo-Award winning books: "The Complete Lean Enterprise" and "Perfecting Patient Journeys" "Math and numbers aren't exclusively the domain of six sigma! Toyota leaders describe lean as an organizational culture, a managerial approach, and a philosophy. They also maintain that the last piece of lean is technical methods, which includes the math we need for gauging improvement, and more. Lean Math is a useful book that compiles important mathematical and quantitative methods that complement the people side of lean. Hamel and O'Connor are extremely qualified to deftly explain these methods. Lest you think it's a dry math text, there are Gemba Tales and examples from multiple industries, including healthcare, which illustrate these approaches in very relatable ways." —Mark Graban, Shingo-Award winning author, speaker, consultant

starting an exercise regimen—the most important thing is to start. But as you mature, and as you achieve higher levels of excellence, rigor becomes increasingly important. Lean Math provides easy, elegant access to the necessary rigor required for effective measurement and analysis and does so in practical terms with excellent examples." —Misael Cabrera, PE, Director, Arizona Department Environmental Quality

One of lean manufacturing's most important calculations is takt time, or the rate of customer demand for a group or family of products produced by one process. This book provide quick guide for Takt Time calculation, machine Cycle Time and One-Piece Flow Cell.

Guide To Takt Time

Designing, Implementing, and Maintaining Kanban, CONWIP, and Other Pull Systems in Lean Production

Implementation Through Lean Manufacturing Tools

Woven Terry Fabrics

The OEE Primer

Behind the Mask