



Advanced Design of Experiments Techniques for Lean Six Sigma Professionals



Upcoming Seminar Date
December 5-8, 2017
Knoxville, Tennessee

REGISTER NOW

(865) 927-0491, Ext. 223 • www.qualproinc.com

About Us

Faced with tougher competition and a more demanding customer, businesses recognize the need for process improvement. Many of the methods that can improve processes, however, are overlooked or misunderstood. Perhaps the least understood of these methods is design of experiments (DOE). QualPro's 12-Step MVT™ Process is a logical, easy-to-follow improvement methodology that utilizes DOE to identify the specific changes in a process that enable breakthrough performance improvement.

Over the years, QualPro consultants have taught hundreds of Six Sigma Master Black Belts how to effectively use DOE within the framework of QualPro's 12-Step MVT™ Process. In QualPro's Advanced DOE Techniques for Lean Six Sigma (LSS) Professionals seminar, attendees learn how to utilize DOE to enhance their ongoing LSS improvement efforts. QualPro consultants teach attendees how to test numerous improvement ideas—more than a dozen in some instances—simultaneously without disrupting operations or increasing capital expenditure.

QualPro's approach to DOE has generated improvements in industries from manufacturing to financial services to healthcare, yielding:

- Increased revenue.
- Improved sales.
- Increased throughput.
- Improved employee satisfaction.

	A/B Testing	Typical Factorial DOE	Typical Fractional Factorial DOE	QualPro's DOE
Cost	Low	Relatively Low	High	Low
Speed of Testing	Slowest	Slow	Rapid	Rapid
Likelihood of Significant, Measurable Improvement	Extremely Low	Low	Relatively Low	Certain
Likelihood of Breakthrough Improvement	Almost Impossible	Extremely Low	Low	High
Applicable across Numerous Industries	Yes	No	No	Yes
Ability to Estimate All Two-Factor Interactions	No	Yes	No	Yes
Ease of Execution and Analysis	Easy	Relatively Easy	Difficult	Easy
Designed to Foster Teamwork and Encourage Creativity	No	No	No	Yes
Designed for Continuous Improvement	No	No	No	Yes

"From a Lean Six Sigma and Performance Improvement background, I found MVT to be the missing tool I've needed. The Qualpro training was excellent and will change the lens through which you view and approach your projects. If you've had trouble seeing success, MVT will put your goal into clear focus."

BJC Healthcare, Kevin Leeseberg, PMP, CSSBB, Senior Performance Improvement Consultant

"Hands down the best Six Sigma training I have attended. DOE was the primary focus of the class, however, the examples and concepts discussed during the training took my basic understanding of statistical tools and language to a different level that can now be applied across multiple conditions at our site."

BASF Corporation, Carly Lousteau, Continuous Improvement Specialist

This seminar will take place on December 5-8 2017

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To request more information about this seminar, please contact QualPro by phone at (865) 927-0491, Ext. 223 or by email at seminars@qualproinc.com.

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Advanced Design of Experiments Techniques for Lean Six Sigma Professionals

Developed specifically for those with previous LSS education, this four-day seminar provides attendees with a review of statistical process control (SPC) techniques and an introduction to QualPro's approach to experimental design, the 12-step MVT[®] Process.

Our seminar content is presented as a simple, step-by-step approach to DOE with minimal technical detail. The seminar emphasizes the use of statistical techniques—and statistical software—to uncover opportunities for breakthrough improvement. The exercises included in the seminar have been collected from years of successful application in numerous industries. Through this seminar, you will learn how to utilize DOE to solve real-world business problems. Upon successful completion of this seminar, you will receive QualPro DOE Specialist certification and continuing education units (CEUs). This seminar is part of our DOE Master Certification Program. For more information on this program, please email seminars@qualproinc.com or visit qualproinc.com/seminars.

You will leave this seminar with an experiment designed to improve a specific process or problem in your organization. You will identify the problem or the key performance indicator (KPI) you wish to improve. We will help you design the experiment, and you will return to work ready to execute it.

Day 1

- Introduction to QualPro's DOE Approach: The 12-Step MVT[®] Process
- Understanding the role of Lean in experimental design
- Review of Six Sigma SPC techniques
- Validating measurement systems
- Using LSS tools to prepare for experimentation

Day 2

- Identifying factors (ideas included in an experiment) and levels (factor settings) to test
- Experimental strategy and design
- Introduction to QualPro's custom screening designs
- Fundamentals for designing and executing experiments

Day 3

- Introduction to factorial designs
- Fundamentals of analyzing experiments
- Analyzing experiments using software

Day 4

- Deploying and analyzing screening experiments
- The role and execution of refining experiments
- Workshops to evaluate, critique, and approve the designs of individual experiments
- Practical advice for using DOE and QualPro's DOE software within your business

In This Seminar You Will Learn:

- How to view production and operations as a system.
- How to use LSS tools to monitor key success measures and process characteristics.
- How to assess measurement systems, process stability, and process capability.
- How to use LSS tools to identify ideas to test.
- How to apply DOE to your most vital processes.
- How to plan and successfully deploy screening and refining experiments in order to:
 - ◆ Identify the areas that will improve performance.
 - ◆ Avoid the ideas that will hurt performance.
 - ◆ Optimally manage the ideas that have no effect on performance.

Benefits of the 12-step MVT Process

- Provides a logical, step-by-step methodology for utilizing DOE in your business
- Uses creative input from individuals throughout your business to generate ideas for testing
- Provides a methodology that enables substantial improvement without increased capital expenditure
- Enables DOE to be used as a continuous improvement tool
- Streamlines the execution of experiments to enable significant performance improvement in a short time period

"It is not enough to do your best; you must know what to do, then do your best."

- W. Edwards Deming
Statistician, Professor, Author,
Lecturer, and Consultant

Contact

For more information on the seminar or QualPro, please visit our website, email us, or call the number below.

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seminars@qualproinc.com

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“Our recent Social Media MVT at Lincoln Memorial University revealed a number of low-cost, high impact strategies that will significantly increase both alumni participation and fundraising outcomes. QualPro’s MVT Process provides rapid results, and it helps us accurately target areas for further planning and improvement.”

– **Lincoln Memorial University**, Frank W. Woodward,
DPA, University Advancement



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