Building Process Improvement Proficiency through Blended Learning

Tim Kelley
February 23, 2016
• Process Improvement Training & Technology
• Trained 506,000+ Lean Six Sigma professionals
• Served over 50% of the Fortune 500
• Courses reviewed and approved by ASQ and PMI
• Academic Partnerships with The Ohio State University, University of Notre Dame, California Polytechnic University, and George Washington University
The Five Phases of Six Sigma = DMAIC

- Define
- Measure
- Analyze
- Improve
- Control
Lean Six Sigma means meeting customer requirements every time.
PRACTICE WHAT YOU PREACH!

WE
Designing a better blended learning model
Data in this presentation were collected from two sources.

Answers to the first two survey questions (training drivers and most important skills) were collected during a series of one day benchmarking conferences conducted in the US and Europe during 2014 and 2015.

Answers to questions about eLearning effectiveness were collected from MoreSteam’s larger enterprise customers in a survey conducted in September of 2015. Respondents include IBM, HP, Hertz, AB-InBev, Tyco, Honeywell, PPG, Eli Lilly, Ohio State, Emerson Network Power, Nationwide Insurance, and Cardinal Health.
Which driver has the most influence on your training design?

- Training Effectiveness: 33
- Training Flexibility: 13
- Travel Cost: 12
- Instructor Time/Cost: 11
- Something Else: 3

Data collected over last 12 months
What skills/tools are most important to you and your people?

- **Skill at Implementing Change**: 64
- **Lean Methods**: 35
- **Simple Data Analysis Tools**: 32
- **Team Leadership**: 22
- **Complex Data Analysis Tools**: 8

Data collected over last 12 months
How effective is your blended training model compared to the training model you used previously?

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<th>0%</th>
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- **Median**: 30% Better
- **Mean**: 39.5% Better

**Std. Deviation**: 35.7%

**N**: 29
How effective is your blended training model compared to the training model you used previously?

New Anderson Darling
created 19 hours ago / modified 19 hours ago

Statistics
- Count: 29
- Mean: 39.48
- Standard Deviation: 35.74
- Min: 10
- Max: 100
- Anderson-Darling Test Statistic: 0.5994
- Anderson-Darling p-value: 0.1087

Charts of Effectiveness

Normal Q-Q Plot

Histogram
Effectiveness perspective

100 projects per year
$50,000 per project
$5,000,000 total value

30% effectiveness improvement (median value)
x $5,000,000 = $1,500,000

Caveat: Multiple inputs to the process of training; effectiveness does not solely influence project completion rates, e.g., project selection, coaching, complexity, management support, etc. However, this perspective does raise the question of process improvement entitlement.
Some things don’t need much design work...
Some do...
RECIPE: Tomato vegetable pasta

Serves: 5
Cost per portion: 32p

Ingredients:
- 500g prepared veg (carrots, broccoli, cabbage)
- 1 onion, peeled
- 2 cloves garlic, peeled
- 1 tbsp cooking oil
- 1kg passata
- 2 tbsp dried mixed herbs
- 100g spaghetti

Method:
1. Finely chop the veg, onion and garlic in a food processor.
2. Put the oil in a pan and add the vegetable mix. Fry for 5–10 minutes until they are soft.
3. Add the passata and herbs, stir and leave to simmer for 20 minutes.
4. Make up the spaghetti according to the package instructions.
5. Remove the sauce from the heat and pulse in a blender.

Star rating (out of 5): ★★★★★
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VOB

VOS

Ingredients
- Process Steps
- Sequence
- Timing
- Environment
- Structure
Learning Activities Used in Blended Model – Beyond eLearning

- Project Work
- One-on-one Coaching
- Study Halls
- Online Sims (SigmaBrew, InBox)
- Physical Sims (catapult, Sigma Station)
- Classroom Lecture

All responses: n=29
Learning Activities Used in Blended Model

Comparison of 9 Worst vs. 8 Best
What are the most important success factors for your training model?

Success Factors

- Structured timeline and deadlines
- Realistic Simulation/Practice
- Scheduled Weekly/Monthly meetings
- Reporting
- Leadership Support for Training Time

From responses with greatest improvement
If you had a do-over on your blended learning design, what would you do differently?

From responses with least improvement
A typical college football teams plays 12 games, each of which has 60 minutes of running clock time, for a total of 12 hours, split between offense and defense.

During the season, the team practices approximately 380 hours (this would probably be higher if not limited by the NCAA).

The ratio of practice to play is therefore **63:1**
Bloom’s Taxonomy

- Remembering
- Understanding
- Applying
- Analyzing
- Evaluating
- Creating
Bloom’s Taxonomy

- Remembering
- Understanding
- Applying
- Analyzing
- Evaluating
- Creating
Learning Activities

Active
- Dynamic
- Complex
- Open-Ended

Passive
- Structured
- Simple, Linear
- Close-ended

Bloom’s Taxonomy
- Creating
- Evaluating
- Analyzing
- Applying
- Understanding
- Remembering
Map Your Learning Activities

- Simple
- Complex
- Open-Ended
- Close-Ended
Key Ingredients:

Realistic Simulation
Multiple Components

Key Methods:

Clear Expectations,
Structure, Follow-up,
Leadership Support
Questions?

Would you explain how you’ve approached ....

Have you ever encountered ....

How have you handled ....
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506,527
The number of professionals that have trained through MoreSteam programs.

POPULAR PRODUCTS
- Black Belt Training
- Green Belt Training
- EngineRoom
- TRACtion

Thank you

Tim Kelley, Executive Vice President – MoreSteam.com
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Join us tomorrow:
“LSS Leadership Guide” – Dr. Sandy Furterer, VP of Process Transformation Park National Bank

Archived presentations and other materials:
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