



Six Sigma Training

Be Your Own Champion

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Rev 1



Preliminary Questions



- How many of you are trained as Master Black Belts, Black or Green Belts?
- How many of you have a trained, committed Champion?
- How many of you have completed your training project?
- How many of you have completed one or more project after your training project?
- How many of you are working on one or more formal LSS projects now?



Outline



Roles of the Champion
Identifying a Champion for your project
Setting expectations for your project
Defining the deliverables
Creating the schedule
Impact on you



Primary Roles of the Champion



Lead the LSS implementation
Select and manage projects
Overcome organizational inertia
Mentor Belts

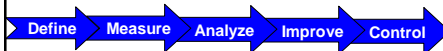


Project Selection

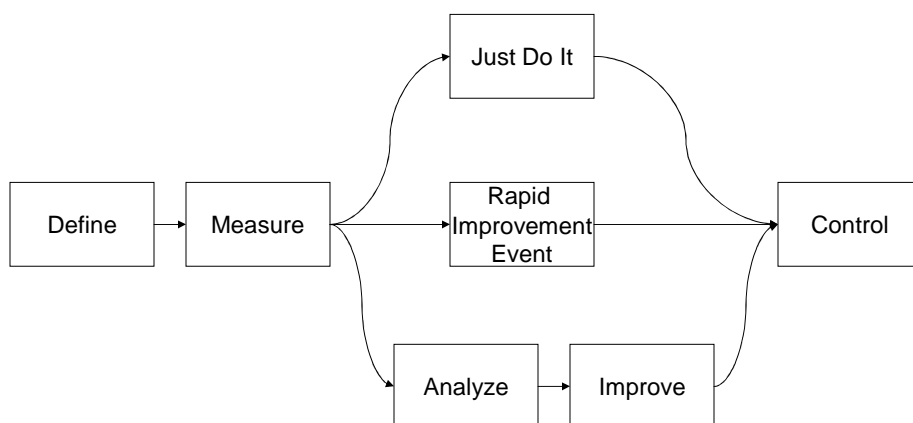


There never has been, nor is it likely there ever will be a perfect LSS project; but before undertaking a project you should be able to answer:

1. Do I have at least 20 hours per week to dedicate to this project?
2. Do the team members have their managers' support to work on the project?
3. Who has the requisite process expertise?
4. What organizational objective is supported by this project?
5. What customer will benefit from this project?
6. How will that customer benefit from this project?
7. Can the project be completed in 2-4 months (5-8 months for a project assigned to a Black Belt in training)?
8. Is the process owner involved in the project?
9. Which executive supports the project?
10. Has the project success criteria been clearly defined?
11. What approach and methodology are required for this project?



Define Projects – Select Methodology



Just Do It



- Opportunities identified during Define/Measure phases which:
 - Are under the process owner's direct control
 - Have an obvious, low risk solution
 - Have relatively short lead times
 - Do not cross organizational boundaries
- Process owner should authorize implementation of:
 - The solution
 - A data collection method to validate the effectiveness of the solution
 - Control method to sustain the solution
 - Follow up action to standardize the solution



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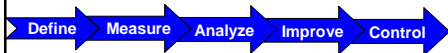
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Rapid Improvement Event (RIE)



- Opportunities identified during Define/Measure phases which:
 - Are under the process owner's control
 - Have an apparent low risk solution
 - Can be addressed in a short period of time (6-8 weeks)
- The process owner should authorize a RIE Team corrective action to:
 - Apply Lean principles
 - Current state Value Stream Map (VSM)
 - Future state VSM
 - Action plan
 - Implement the plan
 - Institute a data collection and control method
 - Validate the effectiveness of the solution
 - Follow up action to standardize the solution



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DMAIC Project



- Opportunities identified during Define/Measure phases which :
 - Impacts one or more strategic objectives
 - Have an executive sponsor
 - Have a direct impact on a Key Performance Indicator
 - Have financial impact >\$150,000
 - Have a reasonable scope with available data
 - Are the result of an existing process
 - Are compatible with the DMAIC tools
- Project Sponsor should authorize a Lean Six Sigma Black Belt project.



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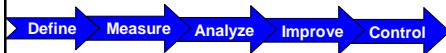
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Project Management



- I have anecdotal but long standing evidence from training hundreds of Black Belts that more than 80% of projects that are the subject of regular, formal, phase reviews succeed, while less than 20% of those that do not have those reviews succeed.
- In the absence of a formal Champion you should schedule monthly reviews with the process owner most closely associated with your project and your immediate supervisor to review your project at the conclusion of each phase or monthly whichever occurs first.



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Define Phase Deliverables



- The Champion should participate in the determination of the tools to be used/deliverables to be produced for each phase of a LSS project.
- In the absence of a Champion the Black Belt should:
 - Create a project charter
 - Determine the methodology to be used
 - Develop a preliminary project plan
 - Identify team members and their level of involvement
 - Propose project success criteria
 - Create a data collection plan
 - Identify project risk factors and propose mitigation strategies



Typical Define Phase Failure Mode



- Poor project selection
- Mitigation strategies
 - Limit the scope of each project to ~ 6 months and ~ 6 core team members.
 - Use a SIPOC and "in scope, out of scope" exercise to assure agreement on project scope.
 - Solicit input from experienced Black Belts and/or instructor.
 - Assure fit to the tools – reduce defects, variability and/or cycle time.



Measure Phase Deliverables



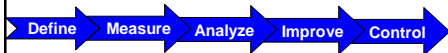
- Process and Value Stream maps
- Process Failure Modes and Effects Analysis (FMEA)
- Cause and effect diagram
- 6 S
- Measurement system analysis (Gage R&R)
- Process performance baseline (Process Capability)
- Preliminary definition of input/output relationships
- Updated project plan



Typical Measure Phase Failure Modes



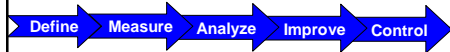
- Failure to correct the measurement system
- Failure to identify all of the critical process inputs
- Mitigation Strategies
 - Remind all involved that the purpose of data collection is to support good decision making
 - Using the average of multiple measures may provide a temporary solution.
 - Involve the entire team in the creation of the data collection plan and the process map.
 - Solicit expert opinion
 - Err of the side of inclusion
 - Report to the "Champion" any constraints what could keep the project from being completed on time and within budget.



Analyze Phase Deliverables



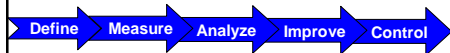
- Future state value stream map
- Kaizen plan
- Statistically significant and practically important process variables (inputs) identified
- Updated process map and FMEA
- DoE Plan
 - Reviewed by a subject matter expert
 - Reviewed by an analytical expert



Typical Analyze Phase Failure Modes



- Jumping to conclusions
- Scope creep
- Mitigation Strategies
 - Stick to the proven DMAIC methodology
 - Refer back to the SIPOC and project charter
 - Report to the "Champion" any constraints what could keep the project from being completed on time and within budget.



Improve Phase Deliverables



- Kaizen event
- Future state map implementation
- Designed experiment(s)
- Key factors identified
- Prediction equation
- Optimal/interim process parameter settings identified
- Standard work plan
- Updated process map, FMEA and process performance (Process Capability, Process Cycle Efficiency, WIP)



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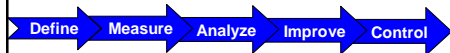
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Typical Improve Phase Failure Modes



- Spending too much on the first experiment
- Not continuing to the control phase
- Mitigation Strategies
 - Spend ~ 25% of your budget for experiments on the first experiment
 - Formal reviews by analytical and subject matter experts after every experiment.
 - Stick to the proven DMAIC methodology
 - Report to the "Champion" any constraints what could keep the project from being completed on time and within budget.



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Control Phase Deliverables



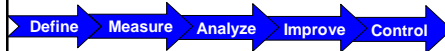
- Control plan
- Statistical Process Control
- Standard work plan implemented



Typical Control Phase Failure Modes



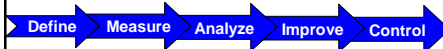
- Failure to implement the control plan and/or standard work
- Failure to start the next project
- Mitigation Strategies
 - Present the project charter for approval which includes acceptance and hand off of the control plan.
 - The just completed project will likely identify other potential projects.



You Should Seek Clarification About



- Reward and recognition for:
 - Team members
 - Self
- Your level of commitment
 - One shot project
 - Ongoing personal effort
 - Deliver training
- Impact on your career



Summary



- There is no substitute for a trained, committed Champion
- Steps have been described you can take to improve your probability of project success
- Increase your probability of success
- Call now!
- Schedule those reviews!

