## **Quantitative Improvement Cycle**

**Steps** 

Purpose	<b>Example Technique</b>	Timing (min)
Gather Data	Sailboat	15
Pick a Purpose	Cluster & dot-vote	4
Root causes & context	Fishbone	15
Generate Solutions	Silent generate; 15% solutions	6
Refine & Pick Improvements	1-3-All	15
Define Measures	Decider protocol	10
Implement	-	(part of daily work)
Analyze results	-	4/day + 5 at end
Demo	-	15

## **Notes**

Cycle start / end:

Purpose:

Root causes addressed

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Other key root causes / context in play:

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Change concept / big idea:

Results analysis:

## **Facilitator Notes**

A few sections are less obvious. Here are some insights to try to incorporate.

Purpose	Considerations
Gather Data	At first you will find lots of small problems, a new one at each cycle. Take one on at a time and change it.  Later you will start finding purposes that take several cycles to understand and incorporate. At that point, you might drop the Gather Data and Pick a Purpose sections for several cycles in a row.
Pick a Purpose	The first few cycles, pick <i>problems</i> to solve / <i>blockers</i> . After that, try to also pick lucky <i>successes</i> to make systematic.
Root causes & context	If you are continuing a prior purpose, still do this section to see if you have changed the context. It might take less time, but it is still worth doing.
Generate Solutions	
Refine & Pick Improvements	Depending on the exercises chosen, this and the Generate Solutions step might combine in various ways.  Pick one central theme / concept, and then create stories for each part of that.  Remember to distinguish experiments and improvements!
Define Measures	Pick one measure of implementation (did you do the thing you planned to try?) and one measure of impact (what effects did it have on the situation?).
Implement	
Analyze results	
Demo	This is the most important part of the process. Celebrate! It provides the pull that makes everything else work. It also keeps you concrete.

There are also several alternate techniques you can use for each section. Each will give you different results - each exercise makes a different kind of interactions become obvious. Here are some alternatives:

Purpose	Alternate exercise options
Gather Data	Timeline, pile of stickies, emotion inventory, emotion box, appreciative interviews, w3 part 1 (what), wicked questions
Pick a Purpose	(might be part of prior step), 1-2-4-all, decider protocol, cluster and dot vote, agreement & certainty matrix
Root causes & context	Drawing together, w3 part 2 (so what)
Generate Solutions	Improv prototyping, min specs, w3 part 3 (now what), 25/10 consulting, Troika consulting
Refine & Pick Improvements	as per Pick a Purpose