### **Better Questions, Better Answers**

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This document presents some questions around T. Edwards Deming's Plan-Do-Study-Act cycle. It is incomplete, intended only to inspire your creativity to find better questions from which you can derive better answers.

#### Plan

- Why document what and how we do things? Training, communicate, measurable conformity, basis for continuous improvement
- If the objection to documentation is, "We don't have time," how can we get more time?
- If we are too busy, then busy doing what? Is being busy the same as accomplishing work?
- To what must we conform?
- To what can we conform?
- Adapt or adopt?
- How must we document? Do we have a plan for planning?
- How can we document so that people use it?
- Who needs what information, when, where, and why? In what form or format?
- What is the right balance between text, graphics, video, audio, props?
- Who is the audience?
- What is the prerequisite knowledge of the audience?
- Must everything we write have a downstream reader? What if it doesn't?
- Must everything we report weigh on a downstream decision? What is it doesn't?
- Would it help if the documentation was Consistent? Clear? Concise?
  Valid?
- Controlled vocabulary? i.e. Might vs may; should vs do.
- Would it help to have a writing standard? i.e. Procedure syntax? Guide to concise writing?
- What are my inputs? Who needs my outputs?
- Specify Tools and Templates?
- Train people how we use the tools with our templates or assume that everyone knows?
- Are our templates effective? E.g. Different formats in Word with the style Normal.
- Can we reduce or convert the procedure into a checklist?
- Will a checklist help? To remind? To record?

- Would we benefit from maximizing our use of structured data? Data instead of documents?
- To what level in each assembly do we need to manage?
  - Replaceable part?
  - Repairable part?
  - Interface
  - Technical requirement?

#### Do

- Where is the plan/process/procedure/checklist? Where is that documented?
- When are checklists advantageous or required for compliance?
- Are checklists guaranteed? i.e. Checklists in public washrooms that are checked, but the room is not clean.
- What if checklists were part of the system vs paper? i.e. RFID item scanning as items are moved through a doorway.
- What happens
- Can I conform to the plan/checklist?
- Can we study what and how we are doing things while we are doing them? How is it going?
- Do we need to perform more testing or reduce variance so that we can test by sampling? Would it be of interest to get the same level of quality with less testing?

# Study

- How did it go?
- Can I make it clearer? More concise?
- Where in the process did this defect occur or start to occur?
- Do we prefer lessons learned or lessons applied?
- Can we analyze the cause? Root cause(s)?
- What could we do to prevent recurrence?
- Could we convert correction effort into analysis effort to prevent defects?
- Can we learn anything from our help desk and development defect database(s)? Why are people calling? Can we do anything to prevent the ticket in the first place?

## Act (Change)

- Can we change the process to correct, adapt, prevent, perfect (enhance) the product or service?
- Who may initiate change?
- Who approves?

- If we learn a lesson about plans and tools, when do we want to apply the lesson? Now or wait? Can we bundle queued changes with a must-do change and release together?
- Are the process and transaction states meaningful? i.e. Help Desk with states Open and Closed only.

### **Miscellaneous Questions**

How much will it cost to document, test, verify, validate, approve? How much will it cost not to?

Why are we doing that?

Why are we doing it that way?

Why do people resist change? Objections? Are they seeking safety and comfort? Are they cynical?

Would people agree to improving?

Would people agree to improving in ways that make their lives easier? Who goes to work planning to do a bad job?

Would people agree to improving if they were involved in the improvement and rewarded for it?

Would it be easier to persuade with THEIR language for pain and benefits or ours?

What if I could show you a way to [improvement or benefit]? What if we could find a way to [improvement or benefit]?

Instead of telling people what to do, what if we asked them guiding questions?

Keep it simple? Simple for whom? Simple for development usually means more complex for users; simple for users usually means more complex for development. What if our designs and development processes made it simpler for both?

What is "intuitive?"

If we have no budget for improving efficiency, are we saying that we cannot afford to save money?

### Reference

Web: http://www.deming.org

Resources: http://deming.org/index.cfm?content=7

YouTube: http://www.youtube.com/results?search\_guery=deming&ag=f

Twitter: http://twitter.com/DemingSaid