

GOSEI

Systematic Problem Solving with A3 and Causal-Loop-Diagram

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Introduction round robin

Name?

Current role?

A thing to remember you about?



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2



Results are Not the Point

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3



**Developing people so
that they can
achieve successful
results is the point.**

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4

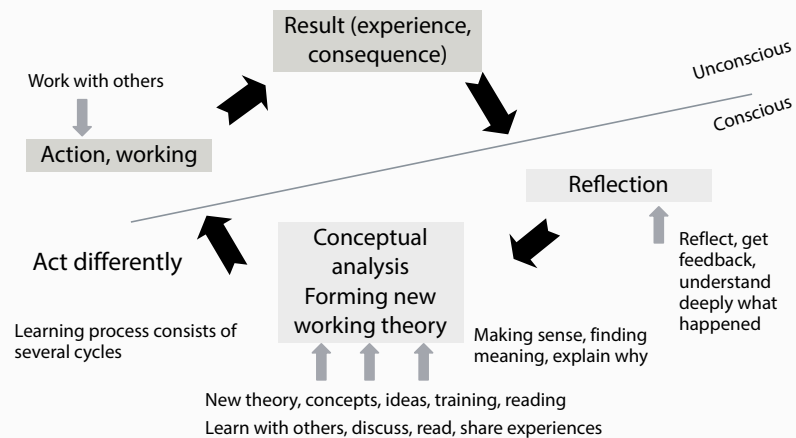


You cannot improve your system by stressing it to achieve aggressive targets. Systems don't work that way.

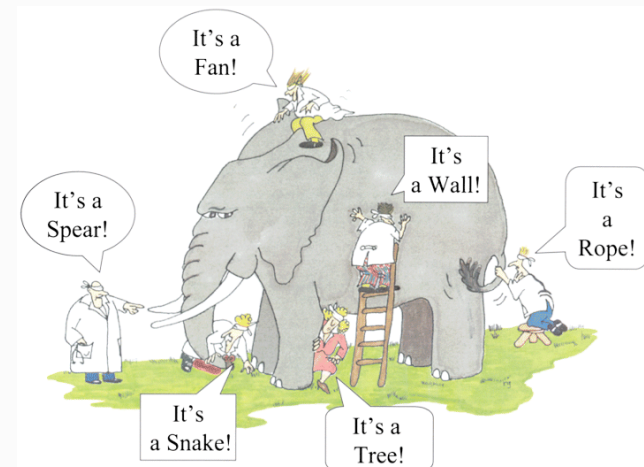
“As a problem gets worse, managers apply even more aggressively the very policies that are causing the problem”

Source: Forrester, System Dynamics and the Lessons of 35 Years

Learning process



Systems Thinking - see the whole



Learning and Improvement

The Deming Cycle (Plan – Do – Check – Act)

Data based problem solving



Typical PDCA Application

- Plan quickly
- Do immediately
- Check roughly
- Act pretty much the way you did before

High Velocity Organization PDCA

- Plan deeply
 - Really understand the problem and root causes
 - Devise experiments to check understanding
- Do many experiments
- Check carefully
- Act systematically
 - Update standards, processes, working agreements



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10

Theme: Is there a clear theme for the report that reflects the contents?	
Background 1. Is the topic relevant to the organization's objectives? 2. Is there any other reason for working on this topic (e.g., learning)?	P
Current Condition 1. Is the current condition clear and logically depicted in a visual manner? 2. How could the current condition be made more clear for the audience? 3. Is the current condition depiction framing a problem or situation to be resolved? 4. What is the actual problem in the current condition? 5. Are the facts of the situation clear, or are there just observations and opinions? 6. Is the problem quantified in some manner or is it too qualitative?	L
Goal / Target Condition 1. Is there a clear goal or target? 2. What, specifically, is to be accomplished? 3. How will this goal be measured or evaluated? 4. What will improve, by how much, and when?	A
Root Cause Analysis 1. Is the analysis comprehensive at a broad level? 2. Is the analysis detailed enough and did it probe deeply enough on the right issues? 3. Is there evidence of proper five-whys thinking about the true cause? 4. Has cause and effect been demonstrated or linked in some manner? 5. Are all the relevant factors considered (human, machine, material, method, environment, measurement, and so on)?	N
Owner Mentor Date Countermeasures (Experiments) 1. Is the analysis comprehensive at a broad level? 2. Is the analysis detailed enough and did it probe deeply enough on the right issues? 3. Is there evidence of proper five-whys thinking about the true cause? 4. Has cause and effect been demonstrated or linked in some manner? 5. Are all the relevant factors considered (human, machine, material, method, environment, measurement, and so on)?	Do
Confirmation (Results) 1. How will you measure the effectiveness of the countermeasures? 2. Does the check item align with the previous goal statement? 3. Has actual performance moved line with the goal statement? 4. If performance has not improved, then why? What was missed?	Check
Follow-up (Actions) 1. What is necessary to prevent recurrence of the problem? 2. What remains to be accomplished? 3. What other parts of the organization need to be informed of this result? 4. How will this be standardized and communicated?	Act

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Understanding A3 Thinking – Durward Sobek, Art Smalley

11

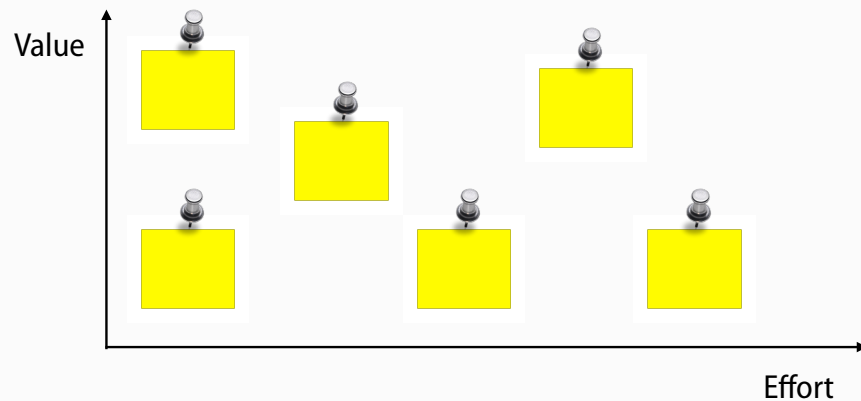
Problem: Improve Physical Health	Name(s): Joel Gross	Date: 29Dec2013
Current Condition / Problem <p>Facts as of 29Dec2013... Weight → 204.3 % Body Fat → 31% Blood Pressure → 141/86 Bench Press → 135 lbs. Life Expectancy = 78.75 years</p>		Cause Analysis Why am I in poor health? ① Exercise < 1x per week ② I choose not to exercise ③ When I eat, I eat too much ④ When I eat, I make poor food choices ⑤ new job ⑥ new baby ⑦ long commute ⑧ Relieves stress temporarily Root Cause: - when tired/stressed, I make poor food choices and choose not to exercise to seek temporary relief. (willpower?)
Target Condition / Goal <p>Strategy Improve healthy by: 1.) Lose Weight 2.) Build Strength 3.) Protect Heart Target for 31Dec2014 Weight → 171 lbs. Body Fat % → 15% Blood Pressure → 120/80 Bench Press → 185 lbs.</p>		Countermeasures / Actions • How do I better manage my stress? • How do I improve decision making when eating or exercising? • make better decisions • don't make a decision! • pre-commit to exercise (no choice req.) • create eating plan (no choice req.)
Verify / Standardize Status as of 31Mar2014 Weight: 187 lbs. } -22 lbs fat loss Body Fat: 22% } +5 lbs muscle gained Blood Pressure: 116/78 Bench Press: 205 lbs. Current Life Expectancy: 86.24 years		

6 Steps

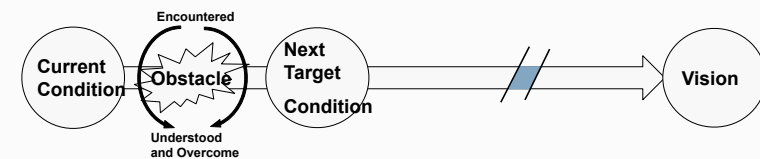
1. Create common understanding of the goal
 2. Create common understanding of the problem
 3. Create common understanding of the root causes
 4. Identify potential solution (formulate experiments)
 5. Do those experiments and measure 2 things: do you do the experiments and do they bring you closer to the goal?
 6. Manifest successful experiments into your processes
- } CLD

What is your System Optimization goal?

Map the experiments



Toyota Kata



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Nürnberg, Germany 17.11.2020 – 19.11.2020

Munich, Germany 8.12.2020 - 10.12.2020

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