

PI Journey and Learnings

Abhi Chaturvedi

<https://www.scalenow.com.au>

Sydney SAFe Meetup, June 7th 2018

Agenda



**About
Scalenow**

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Challenge**

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Discussion

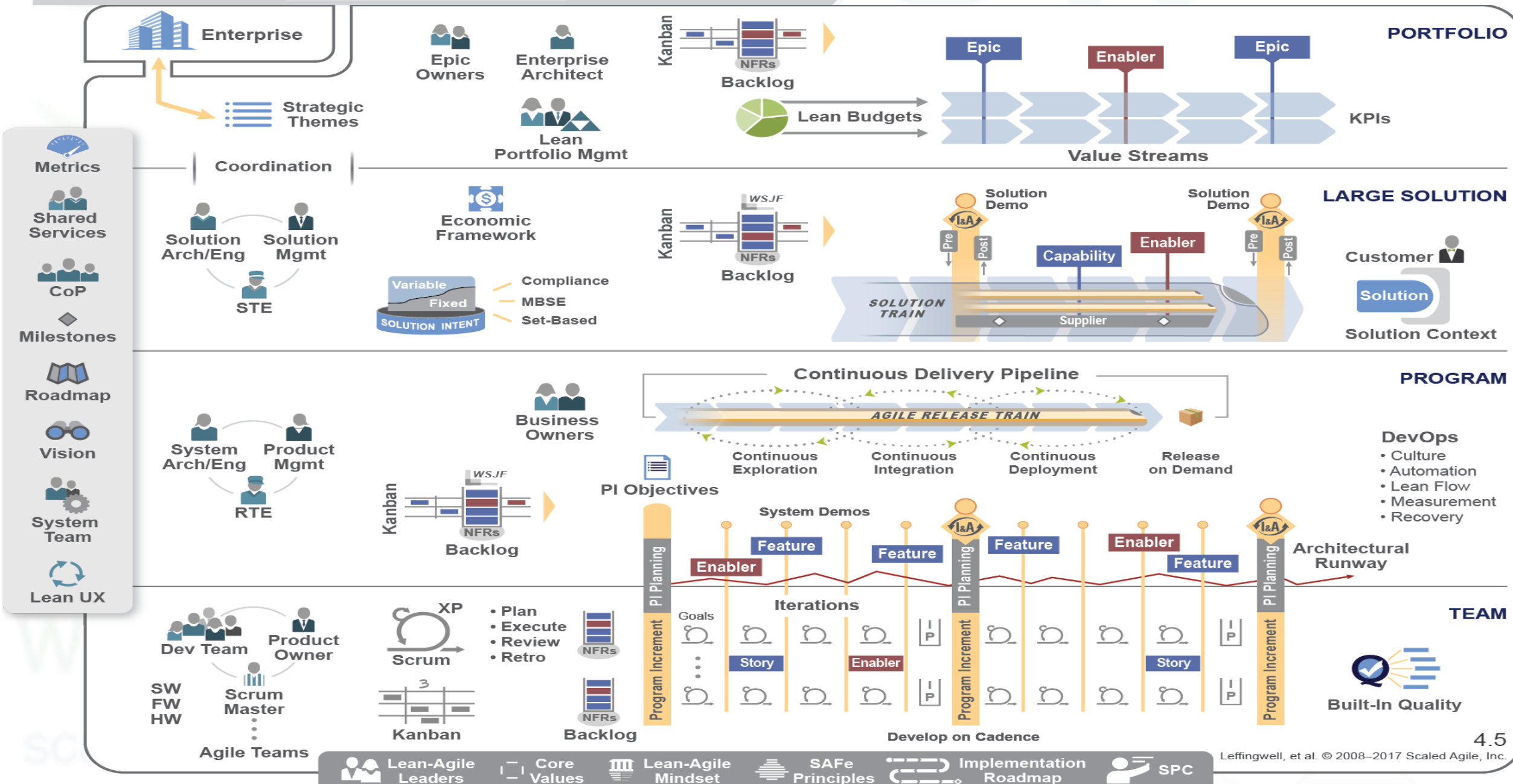
About Scalenow

Abhi Chaturvedi

Enterprise Lean Transformation & Training, Agile Coaching, Consulting

- I. A lean evangelist, training organisations and individuals on scaling agility to enterprise levels using SAFe™ framework.
- II. Leveraging lean frameworks to provide a clear synopsis for high level overviews.
- III. Developing corporate strategy using iterative approaches & collaborative thinking; strengthening the value proposition.

The Big Picture



The Challenge

Background:

PI planning meeting for four ART supporting retail operations
Teams had all presented their final plans and had voted high confidence in achieving their objectives

What went wrong:

During the final ART wide confidence vote, 4 product owners gave a confidence of 2!

Issue:

Availability of SMEs. They had NO confidence, the SMEs required to validate the solution would be available, due to conflicting priorities.

The Journey

Solution:

- I. Did root cause analyses and created an action plan (2 hours)
- II. Dropped an entire objective to create better focus
- III. Realistic ways to free SMEs from competing priorities.

Take-away

Confidence vote is critical, root cause analysis is a great tool, two days is critical

1. Causal Loop Diagram
2. Fish Bone Diagram

The Journey

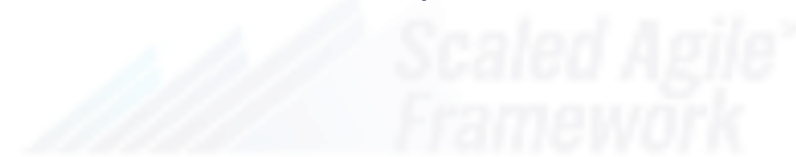
The causal loop diagram (CLD), is a foundational tool used in system dynamics, a method of analysis used to develop an understanding of complex systems.

Dr. Jay Forrester of MIT's Sloan School of Management founded system dynamics in the 1950s and his book *Industrial Dynamics* was ground breaking

Thirty years later, Peter Senge in his book *The Fifth Discipline* covered in detail systems thinking, another unique discipline, using the CLD as its centrepiece.

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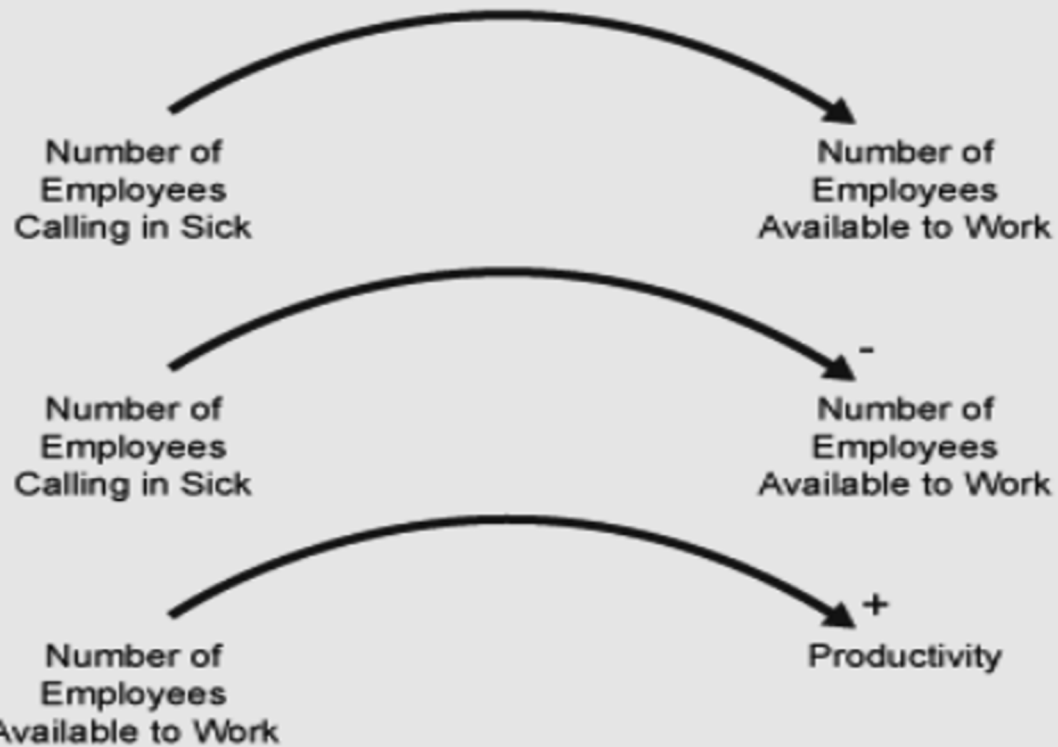
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The Learnings

Figure 1: Examples of Causal Loop Diagrams



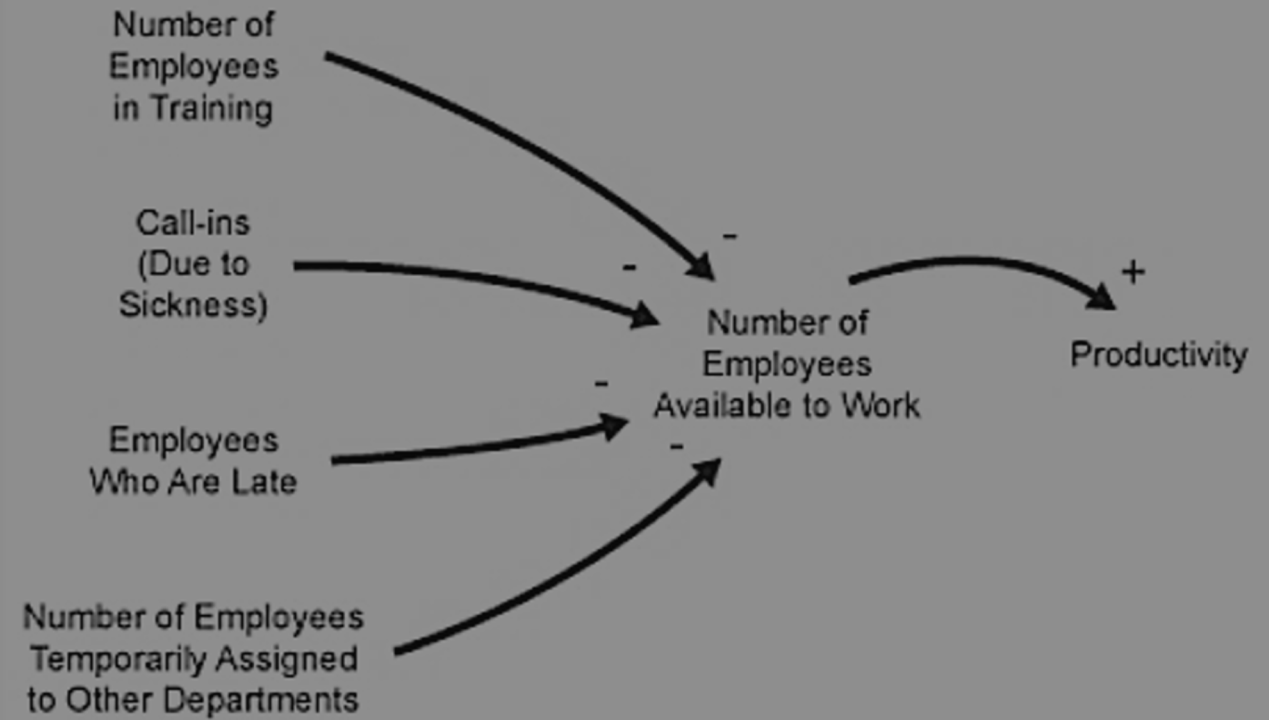
- I. The minus sign denotes that the first variable causes a change in the opposite direction in the second variable. In this case, as the number of workers calling in sick increases, the number of employees available to work decreases. The minus sign is placed at the head of the arrow as shown in the middle example in Figure 1.
- II. A plus sign is used to signify that a change in one variable causes the second variable to change in the same direction as shown in the bottom example in Figure 1. Thus, as the number of employees available to work decreases, organizational productivity also will decrease.

The Learnings

Figure 1: Examples of Causal Loop Diagrams



Figure 2: Number of Employees Available to Work



The Learnings

Figure 3: Effects of Decreased Productivity

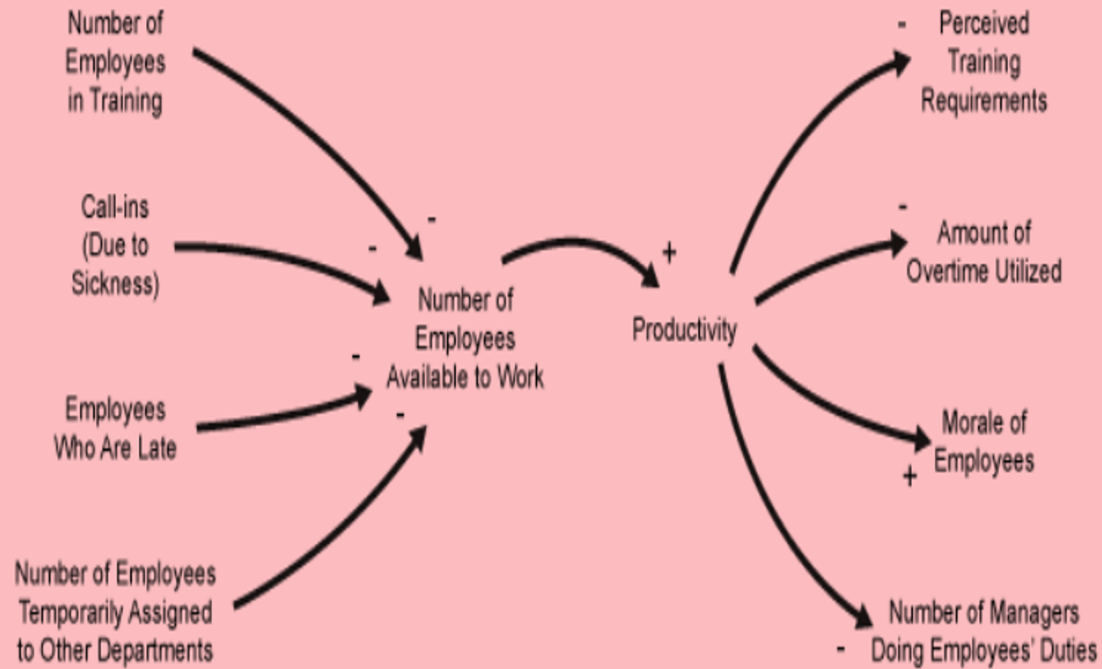
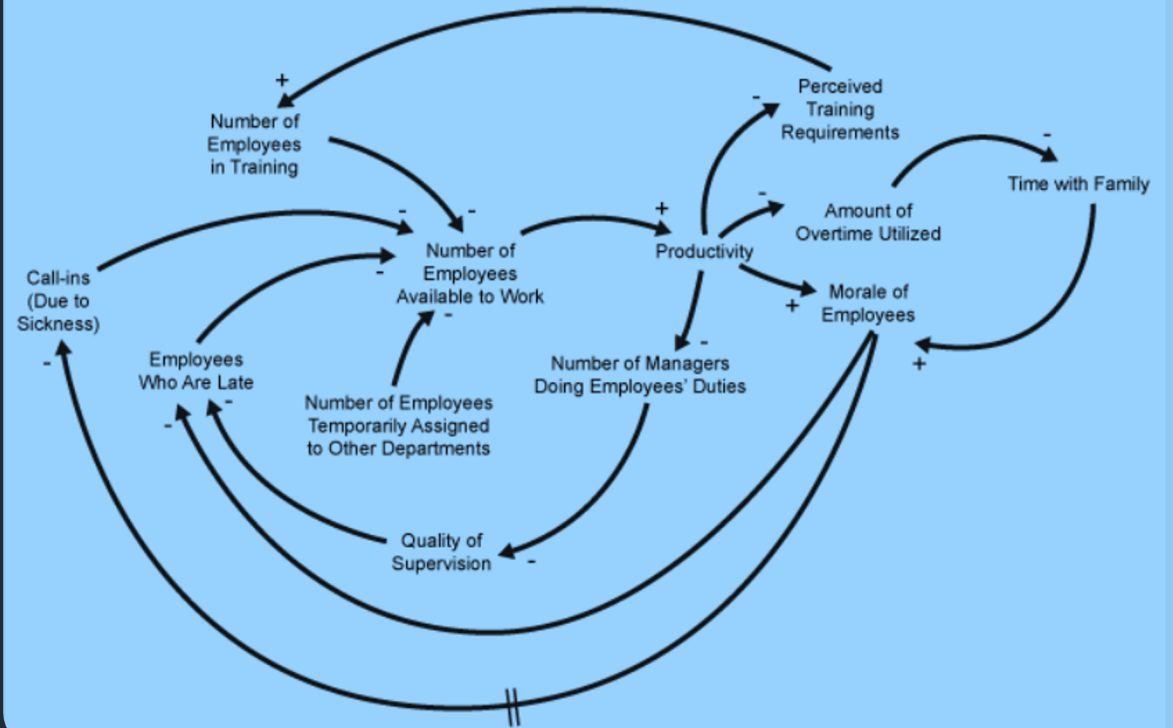


Figure 4: The Effects of Interventions



The Learnings

Figure 5: Labeling the Types of Loops

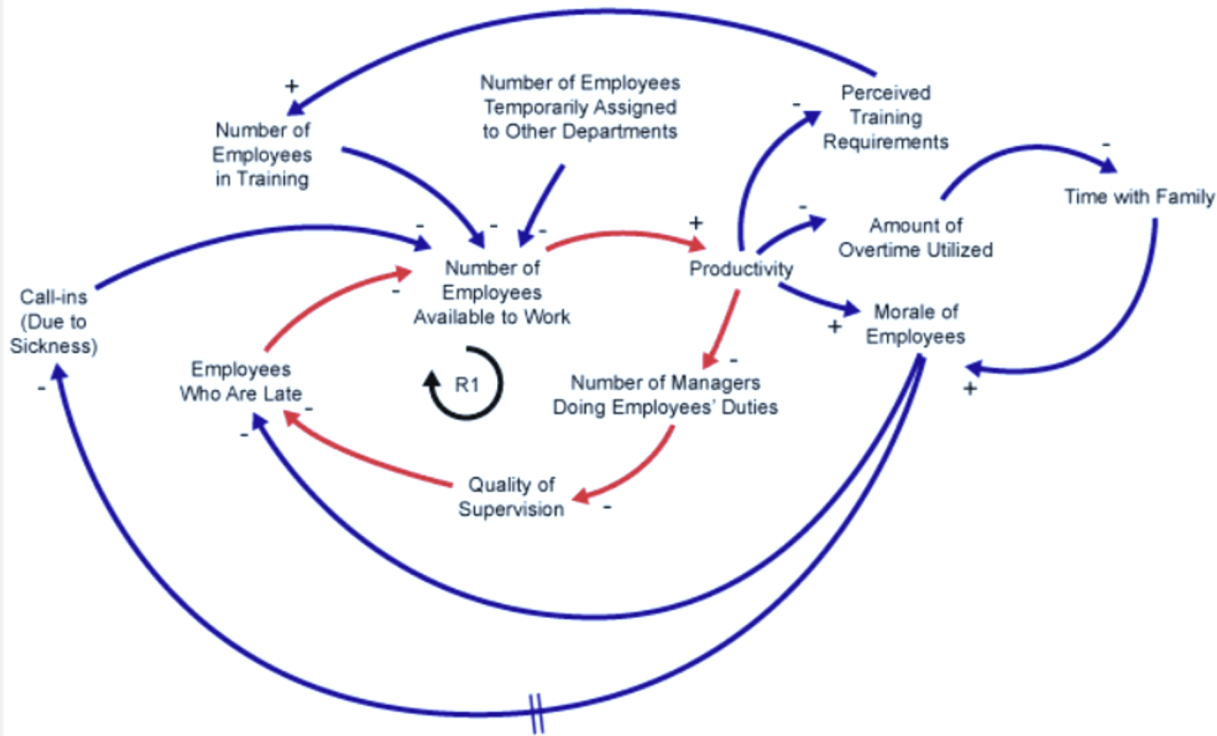
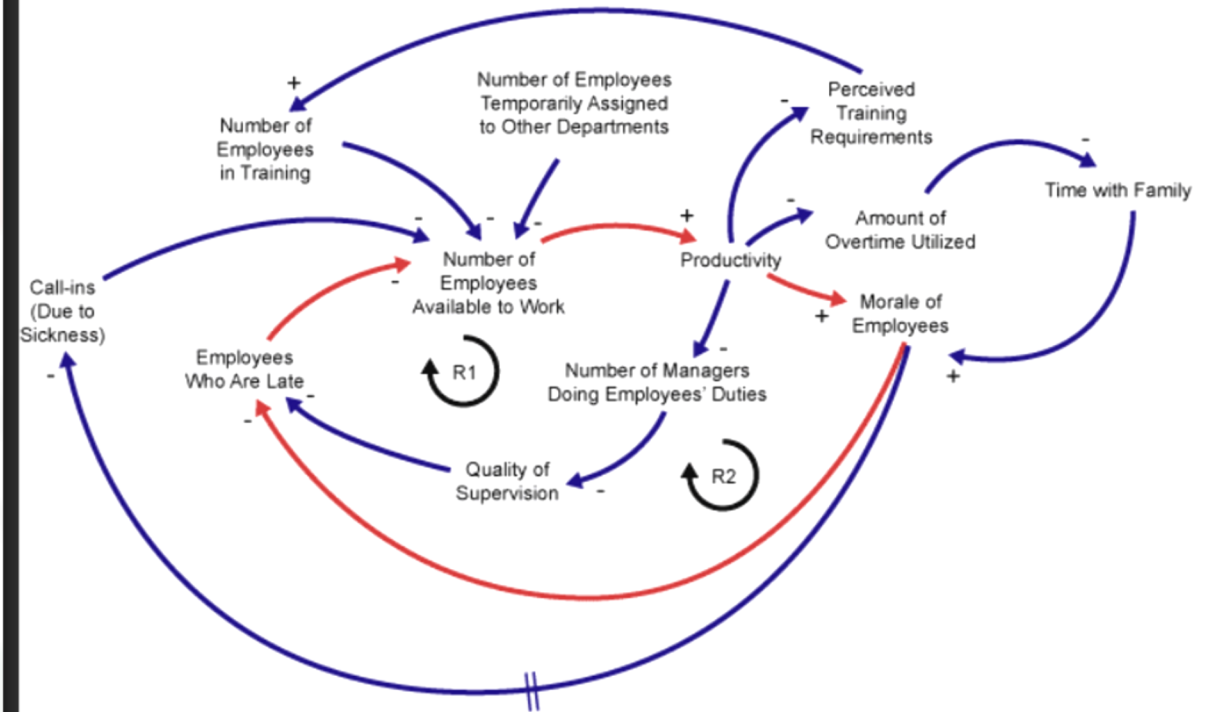


Figure 6: Another Reinforcing Loop



The Learnings

Figure 7: A Third Reinforcing Loop

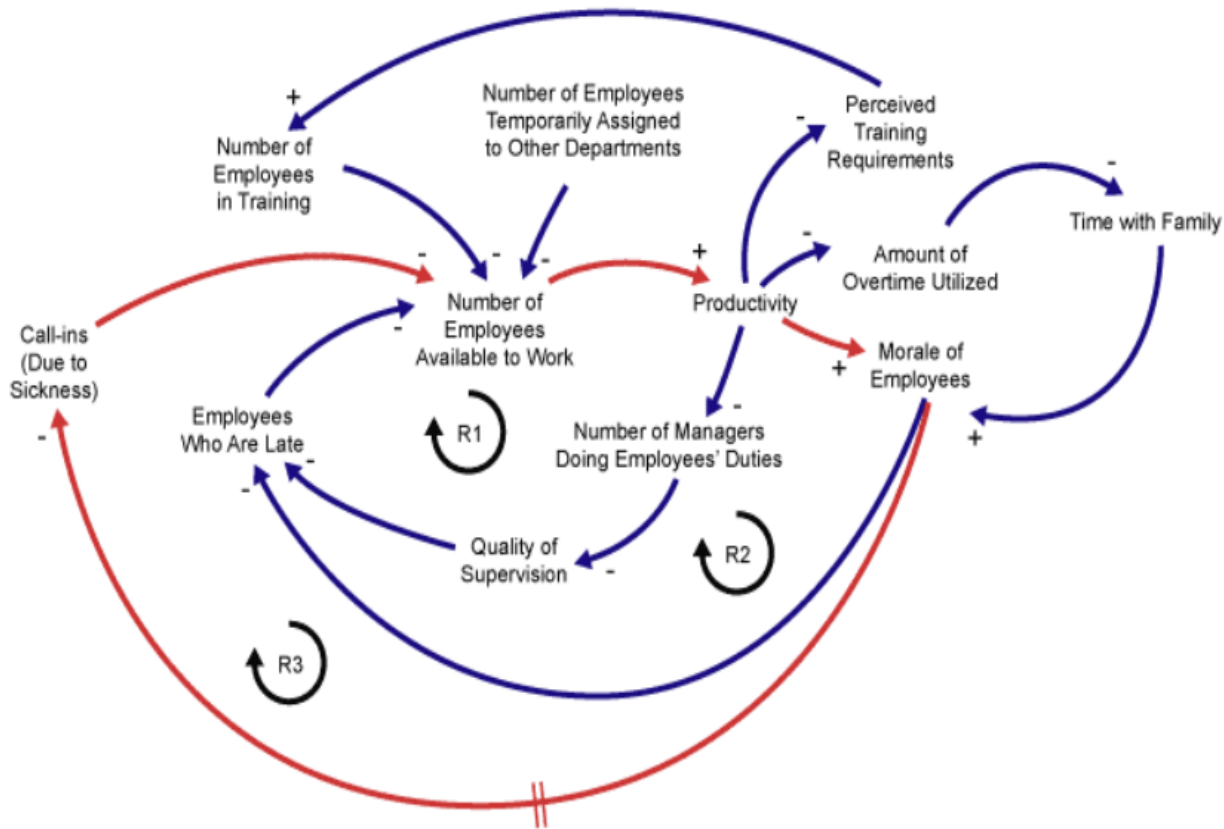
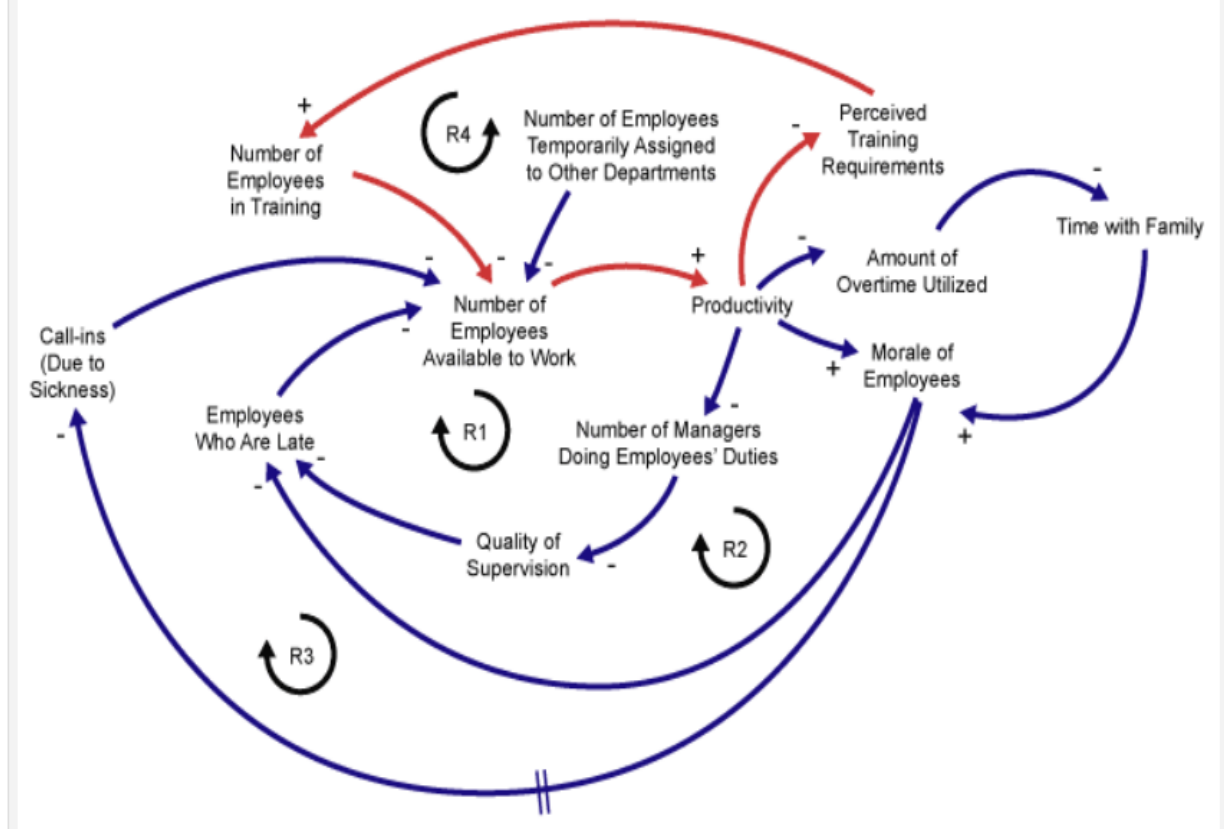
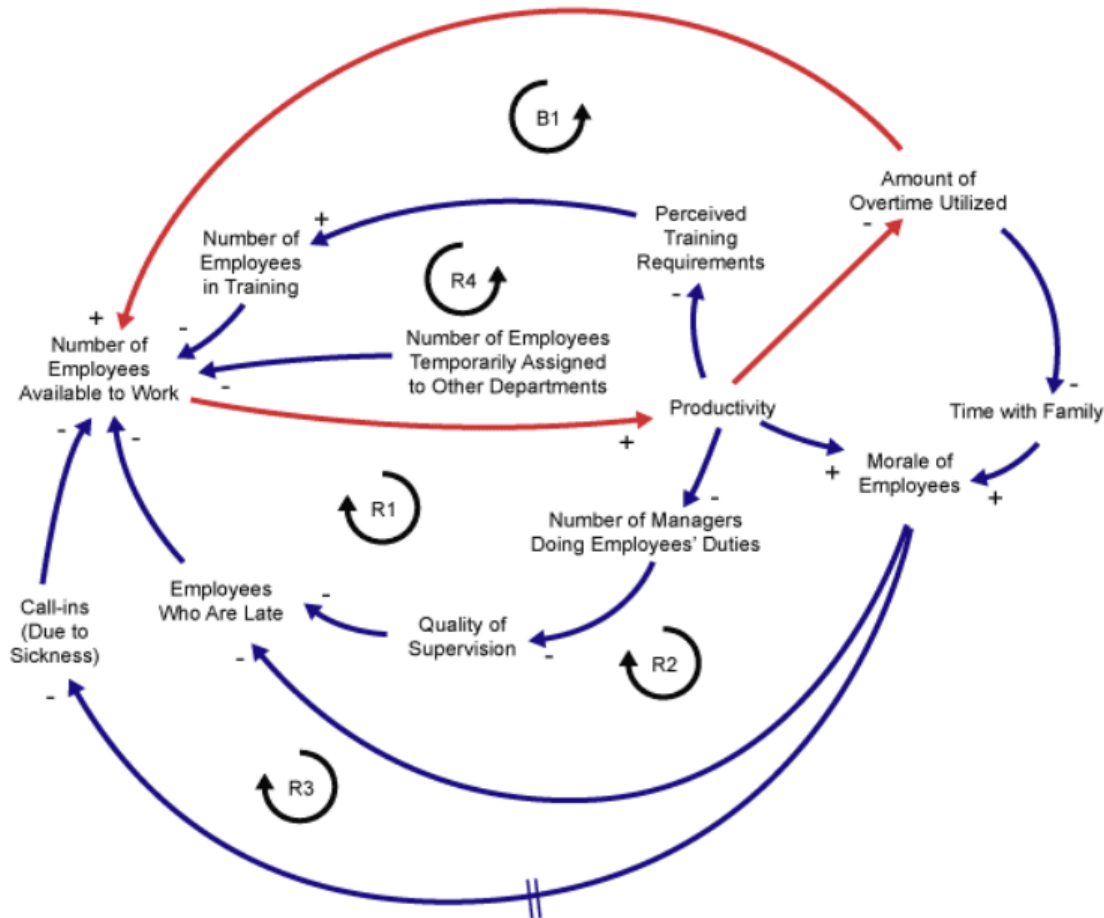


Figure 8: A Fourth Reinforcing Loop

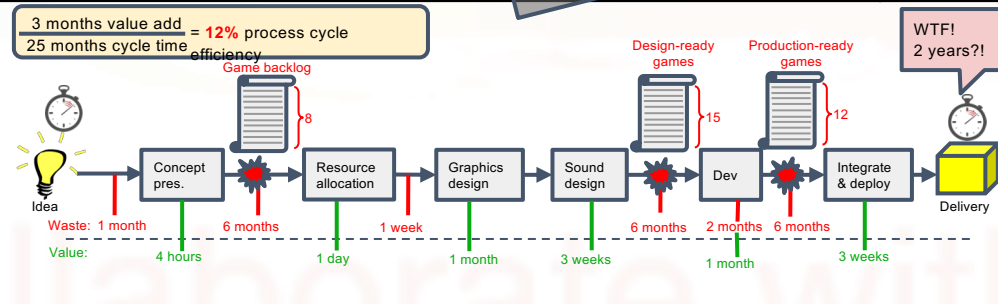
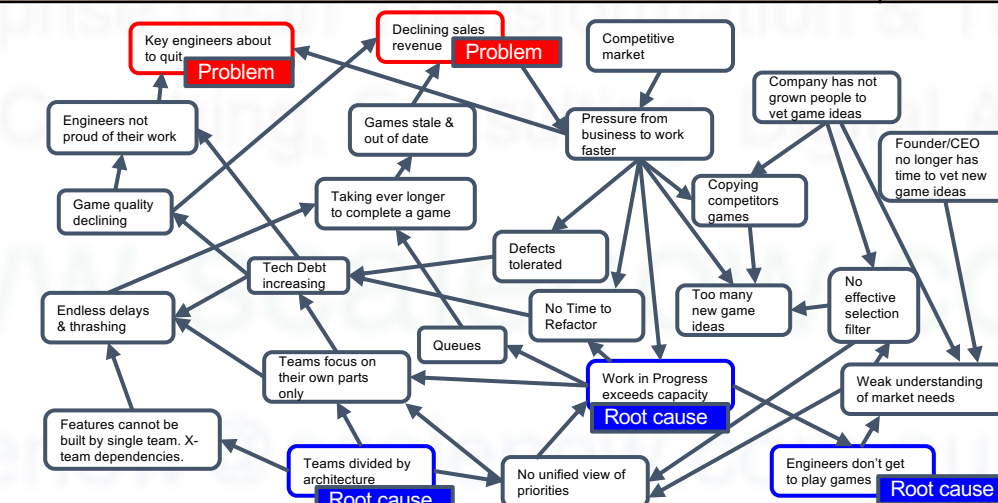



Observations

Figure 9: A Balancing Loop



- I. Determine if those employees in training (especially those locally) can be pulled back early.
- II. Negotiate with those other departments that have personnel on assignment to them to see if their assignment length can be shortened.
- III. Evaluate the training being attended by employees (both currently and in the future) to determine if it has an impact on the strategy and goals of the company. If the training adds no true value or has little-to-no return on investment, consider cancelling it to free up the employees.
- IV. Reinforce human resources policies on tardiness and calling in sick. Remind employees that there are valid steps to follow when calling in sick or late and penalties for abusing these company policies.
- V. See if other departments can offer up employees on temporary assignment.

Background	PLAN
<p>Games out of date, 2 years time to market</p> <ul style="list-style-type: none"> ● Missed market windows → revenue declining ● Demotivated teams → key developers about to quit ● Overhead costs → Time to develop games steadily increasing due to declining technical quality ● Pressure to Work FASTER! 	
Current condition (value stream map)	PLAN
	
Goal / Target Condition	PLAN
<ul style="list-style-type: none"> ● 8x faster cycle time ● 5x fewer escaped defects ● 20% improvement in revenue 	
Root Cause Analysis (cause-effect diagram)	PLAN
	

Countermeasures (experiments)	DO
<ol style="list-style-type: none"> 1. Cross-functional teams - Graphics design through deployment <ul style="list-style-type: none"> ○ Predict 2x faster delivery => End dependencies - now spend 75% of time waiting/negotiating 2. Abandon all but most promising 3 games in each queue. Do ONE game at a time per cross-functional team. <ul style="list-style-type: none"> ○ 4x faster delivery from reduced task switching ○ Eliminating queues will cut 1.3 years from schedule 3. Engage developers in playing games and selecting ideas <ul style="list-style-type: none"> ○ 30% more profit to par with best competitor => improved filtering on which games to develop => more fun games, more popular 	
Confirmation (results)	CHECK
<ol style="list-style-type: none"> 1. Cross-functional teams => Half as much time waiting 2. One game at a time => Queues eliminated, time to complete game is 3-4 months (6-8x faster) => Technical Debt is decreasing - escaped defects down by 2x so far. 3. Engage developers in playing games and selecting ideas => One team taking to to play is producing more innovative games. => Impact on profit is to be determined. 	
Follow up (actions)	ACT
<ol style="list-style-type: none"> 1. Consider more cross training of team members to reduce waiting for expertise. 2. Reduce difficulty of integration and deployment steps 3. Improve processes for generating and selecting game ideas <ol style="list-style-type: none"> a. Recruit talent if identifiable/available b. Improve skills/process of best people already in company c. Broaden both participation in selection and game playing experience of everyone in the company 4. Continue improvement of reused game components/engines to improve development throughput and reduce defects. 	
<p>A3 Problem Solving Template v1.2 (April 2015) by Henrik Kniberg and Tom Poppendieck License: Creative Commons Attribution 4.0 International Original link: http://www.crisp.se/lean/a3-template</p>	

Discussion

Training Needs



Please send me an email on
scalenow@scalenow.com.au

or

contact me directly at +61 (0) 422-149-614
expressing your level of interest for SAFe
certifications.