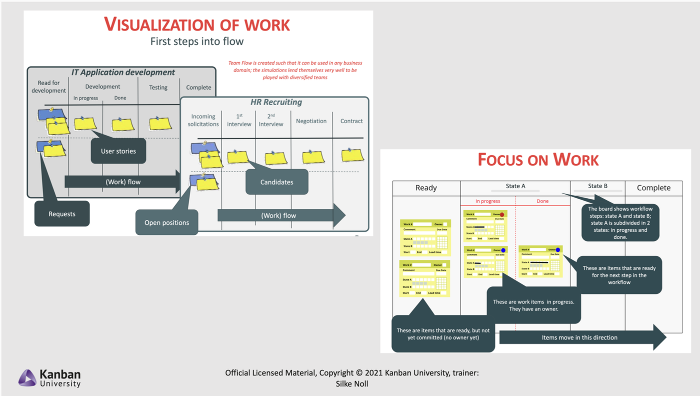
VISUALIZATION OF WORK
First steps into flow
FOCUS ON WORK
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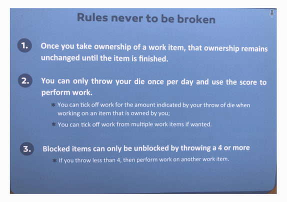
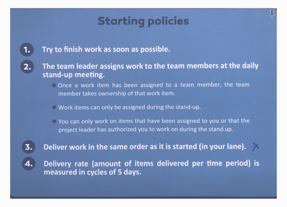
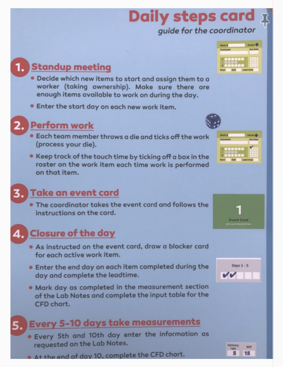
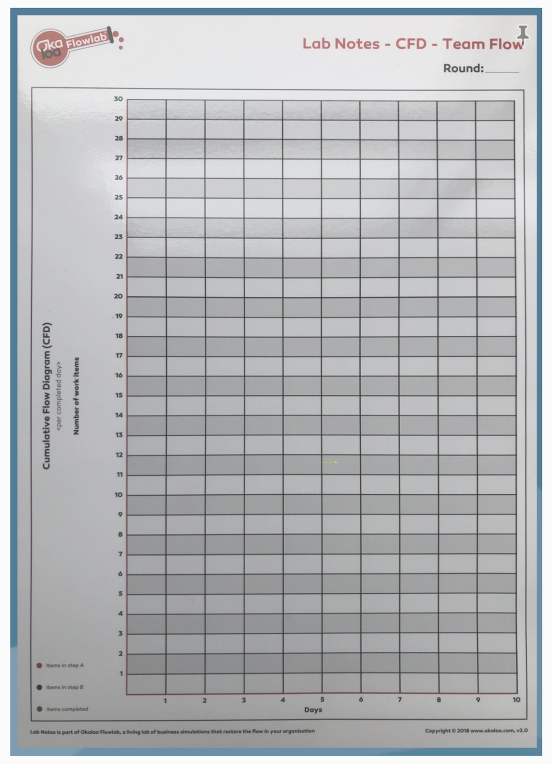
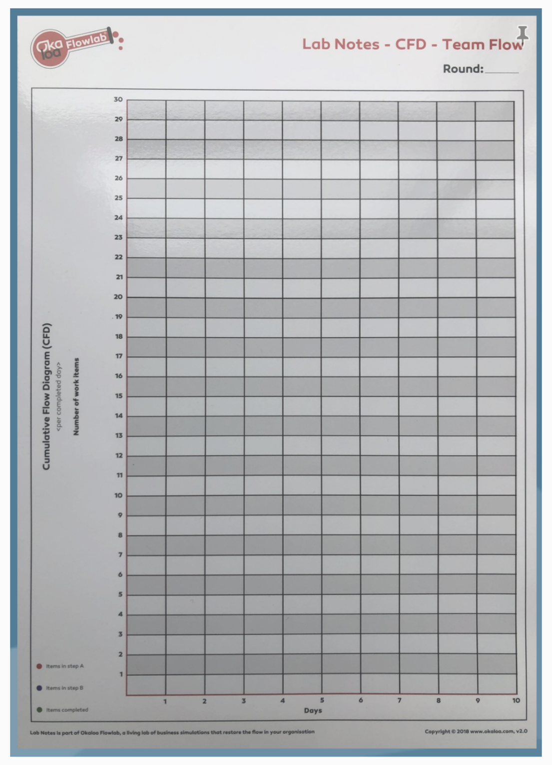
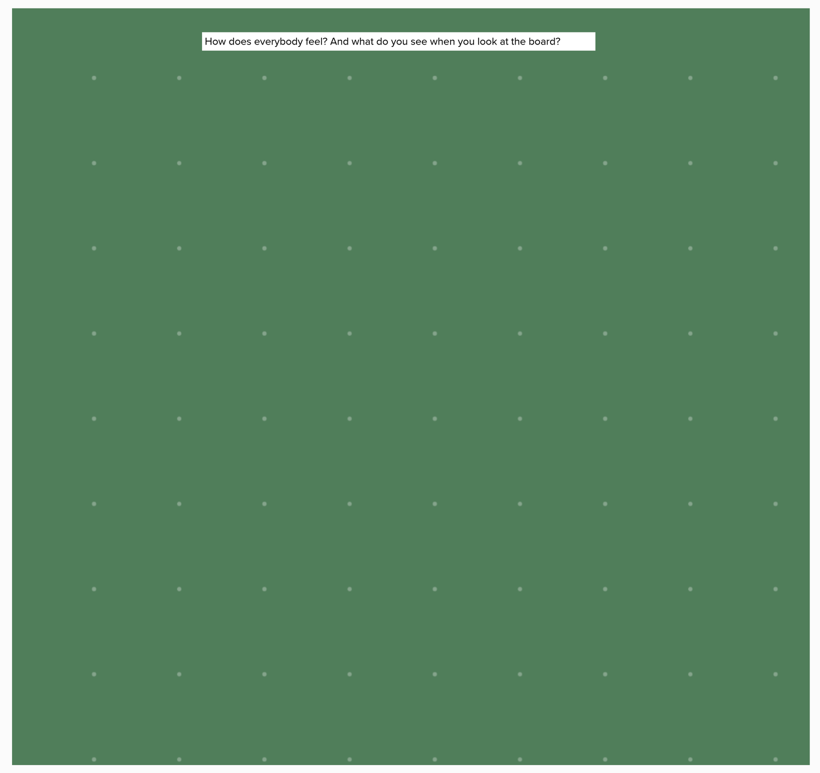

Rules never to be broken

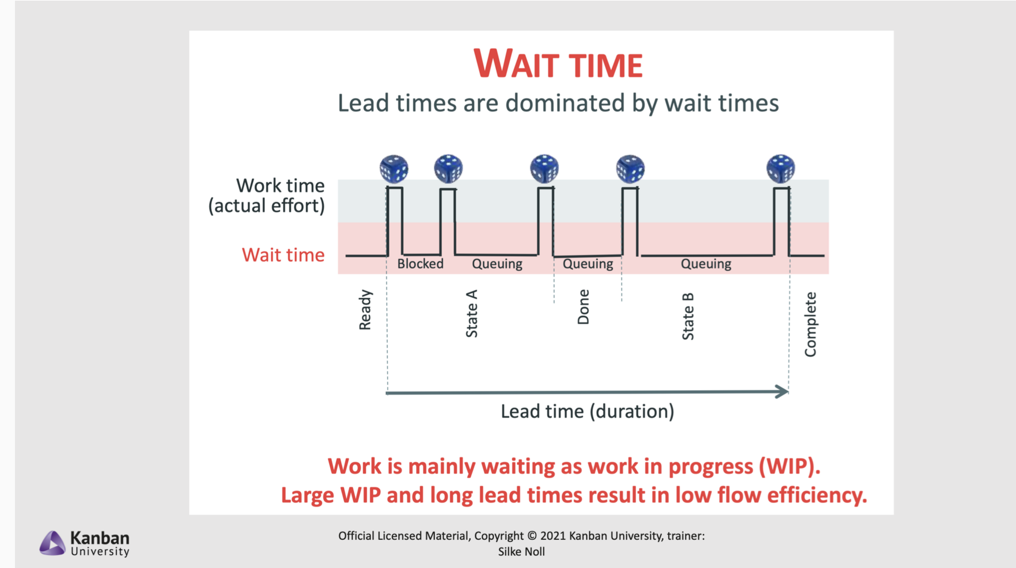

Starting policies


Daily steps card


Lab Notes - CFD - Team Flow
Round:
Cumulative Flow Diagram (CFD)


Lab Notes - CFD - Team Flow
Round:
Cumulative Flow Diagram (CFD)


How does everybody feel? And what do you see when you look at the board?


WAIT TIME
Lead times are dominated by wait times
Work time
(actual effort)
Wait time
Blocked
Queuing
Queuing
Queuing
Ready
State A
Done
State B
Complete
Lead time (duration)
Work is mainly waiting as work in progress (WIP).
Large WIP and long lead times result in low flow efficiency.
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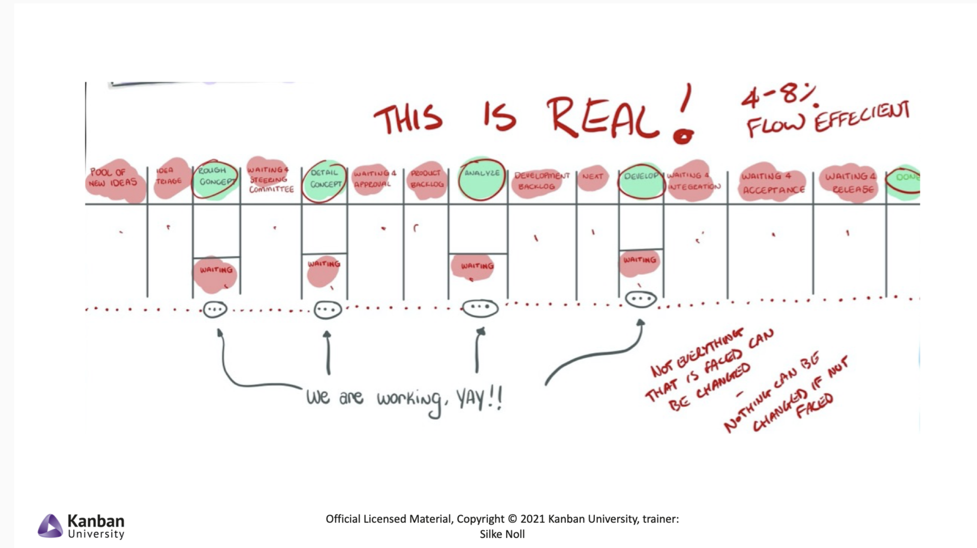
THIS IS REAL!
4-8% FLOW EFFICIENT
We are working, yay!!
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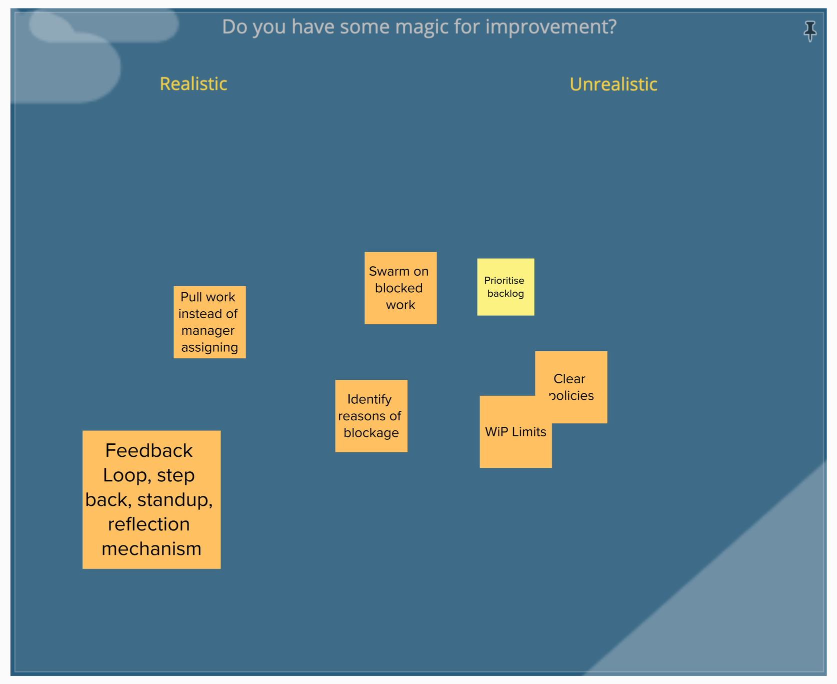
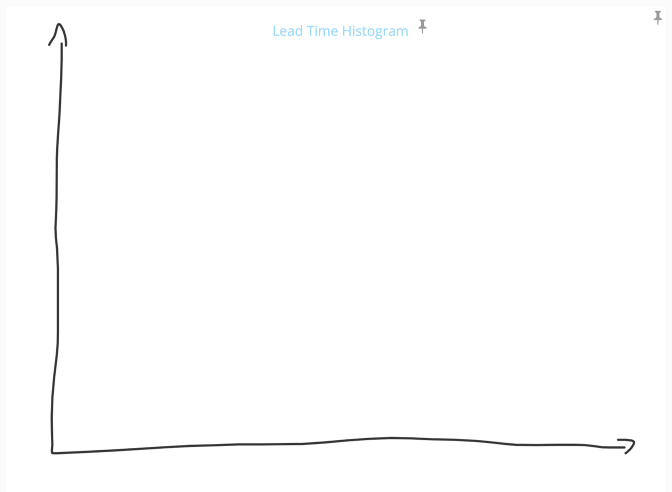
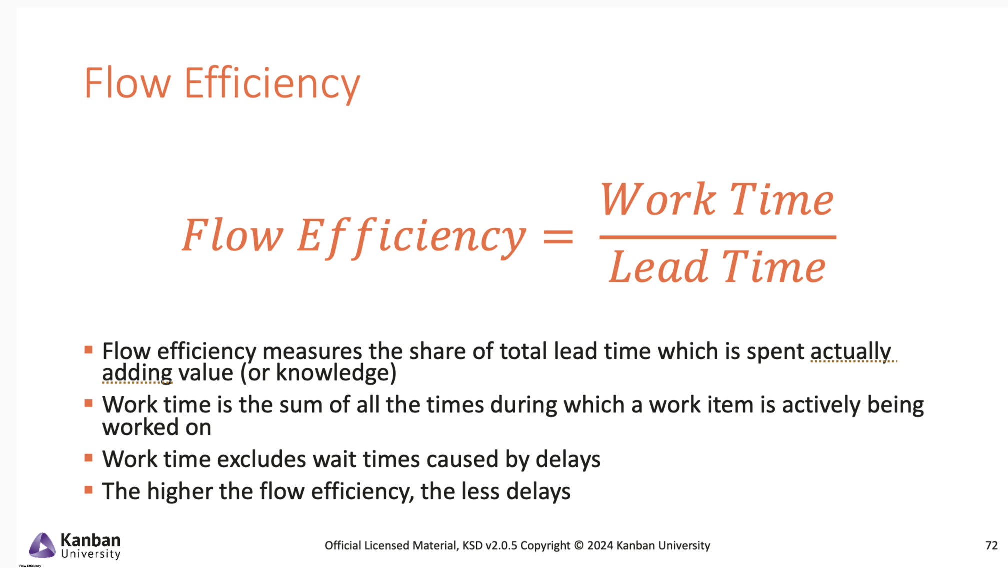

Do you have some magic for improvement?
Realistic
Unrealistic
Pull work instead of manager assigning
Swarm on blocked work
Prioritise backlog
Identify reasons of blockage
Clear policies
WIP Limits
Feedback Loop, step back, standup, reflection mechanism


Lead Time Histogram

Run Chart


Flow Efficiency
$Flow\ Efficiency = \frac{Work\ Time}{Lead\ Time}$
Flow efficiency measures the share of total lead time which is spent actually adding value (or knowledge)
Work time is the sum of all the times during which a work item is actively being worked on
Work time excludes wait times caused by delays
The higher the flow efficiency, the less delays
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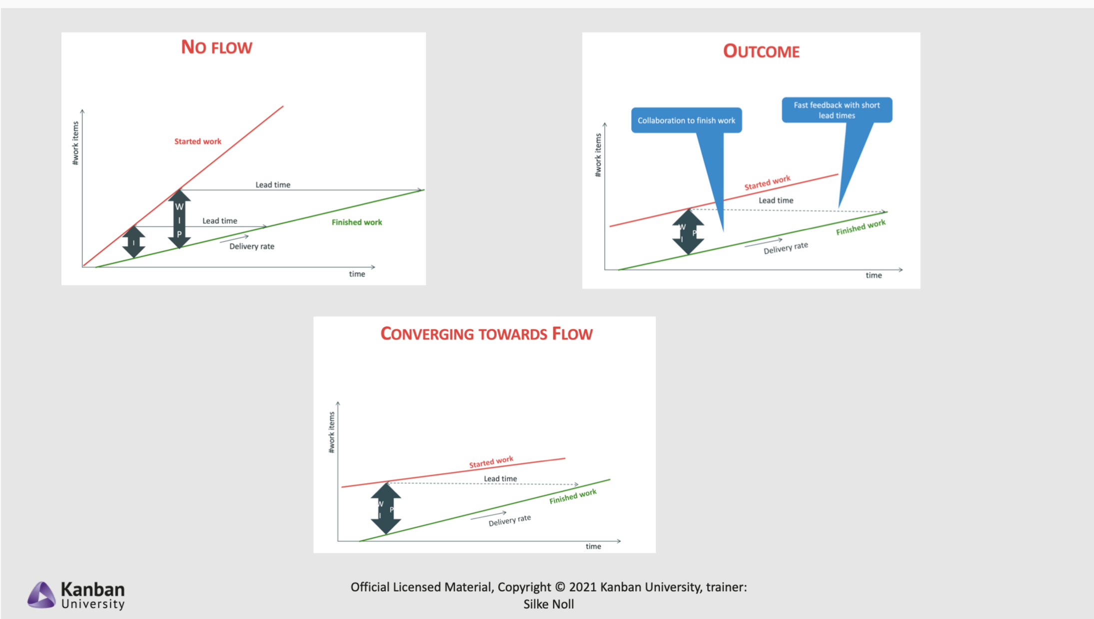
NO FLOW
OUTCOME
CONVERGING TOWARDS FLOW
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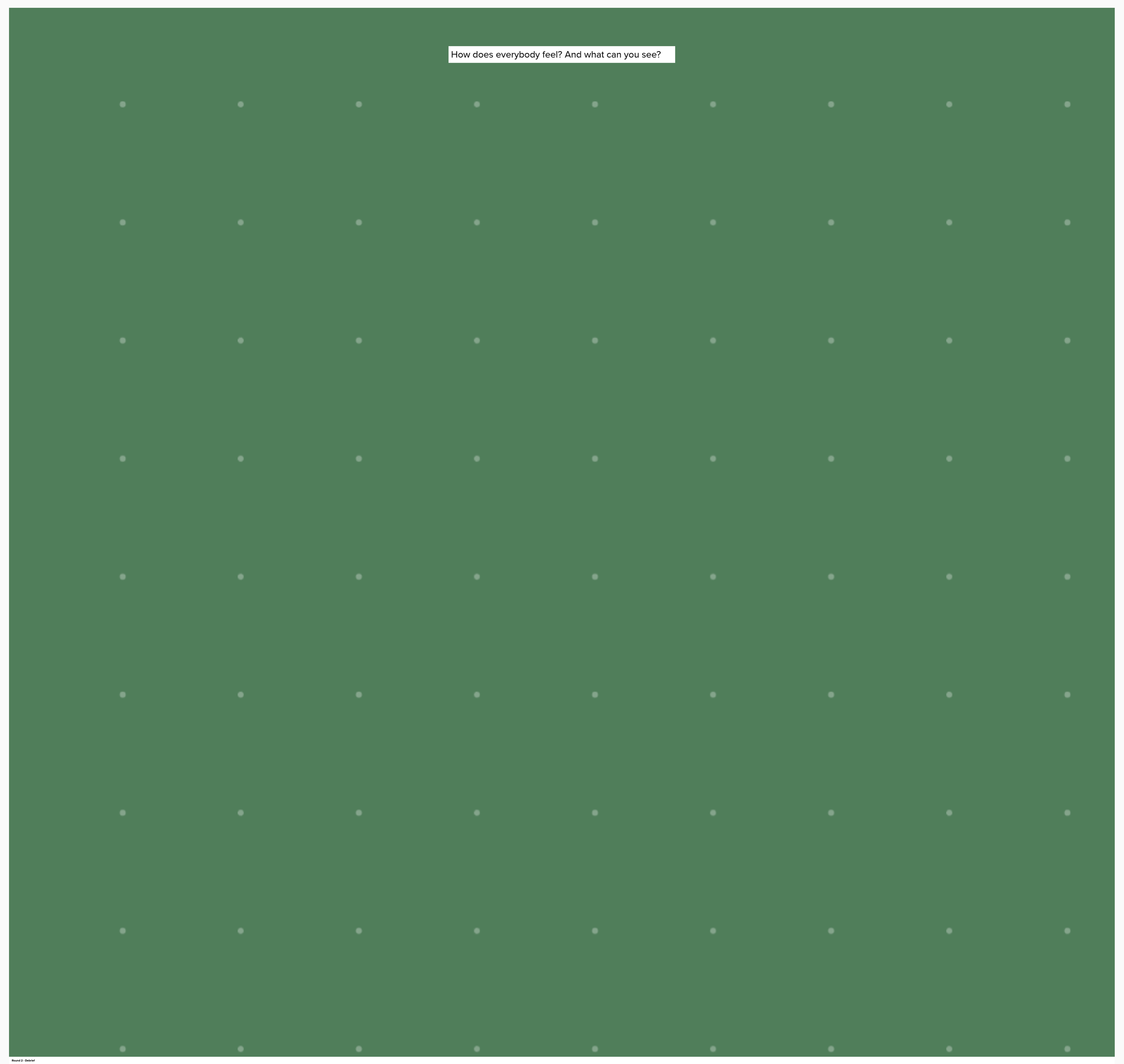
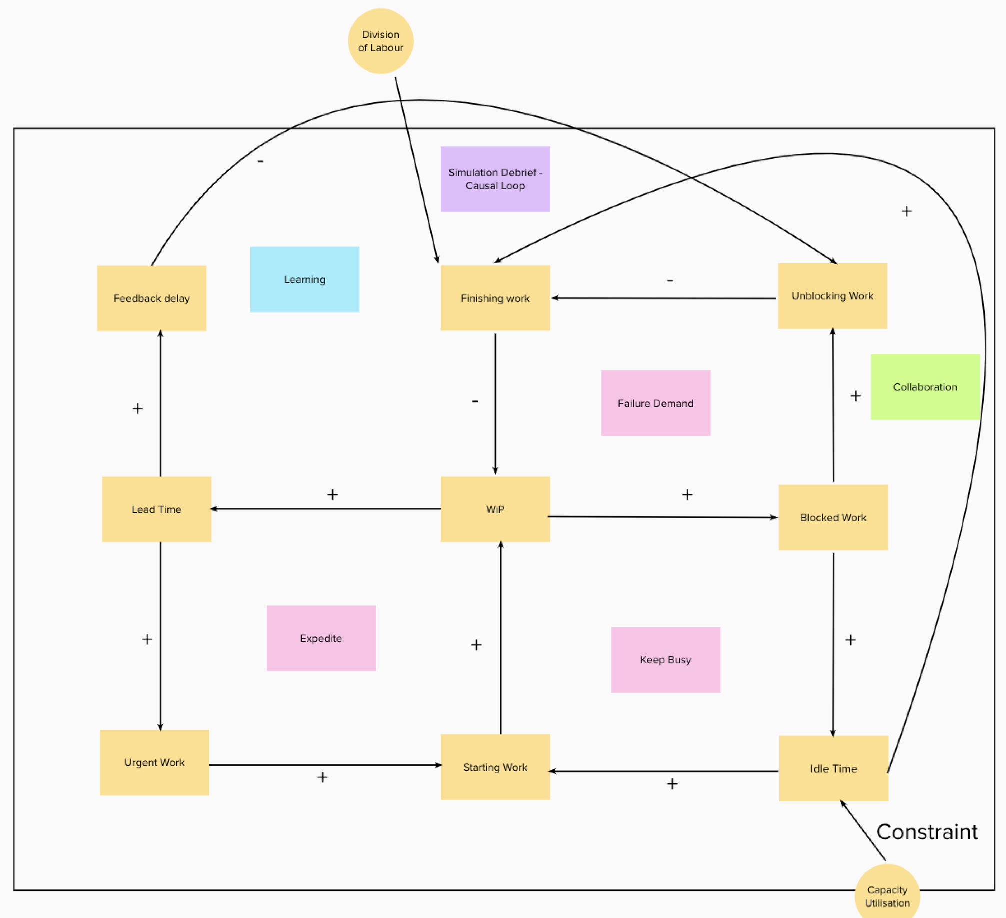
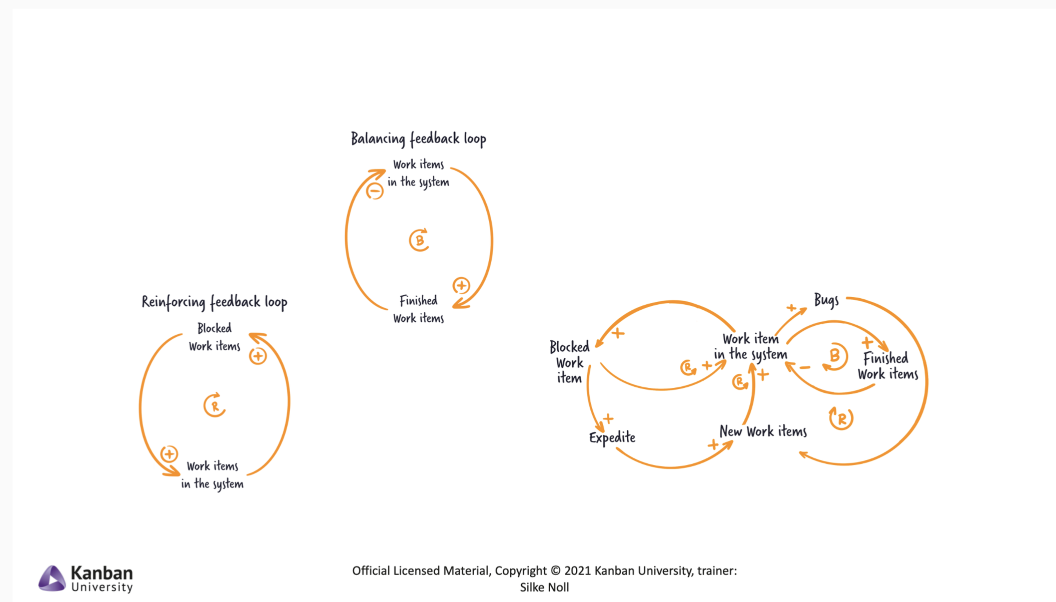

How does everybody feel? And what can you see?


Division of Labour
Simulation Debrief Causal Loop
Feedback delay
Learning
Finishing work
Unblocking Work
Collaboration
Failure Demand
Lead Time
WIP
Blocked Work
Expedite
Keep Busy
Urgent Work
Starting Work
Idle Time
Constraint
Capacity Utilisation


Balancing feedback loop
Reinforcing feedback loop
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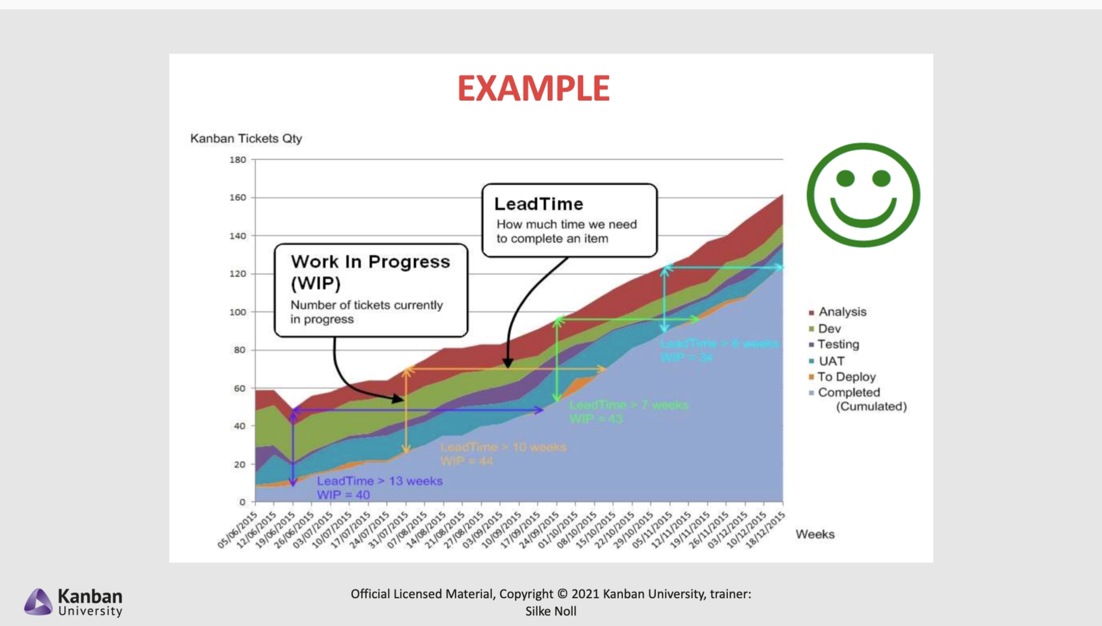
EXAMPLE
Kanban Tickets Qty
LeadTime
How much time we need to complete an item
Work In Progress (WIP)
Number of tickets currently in progress
Analysis
Dev
Testing
UAT
To Deploy
Completed (Cumulated)
Weeks
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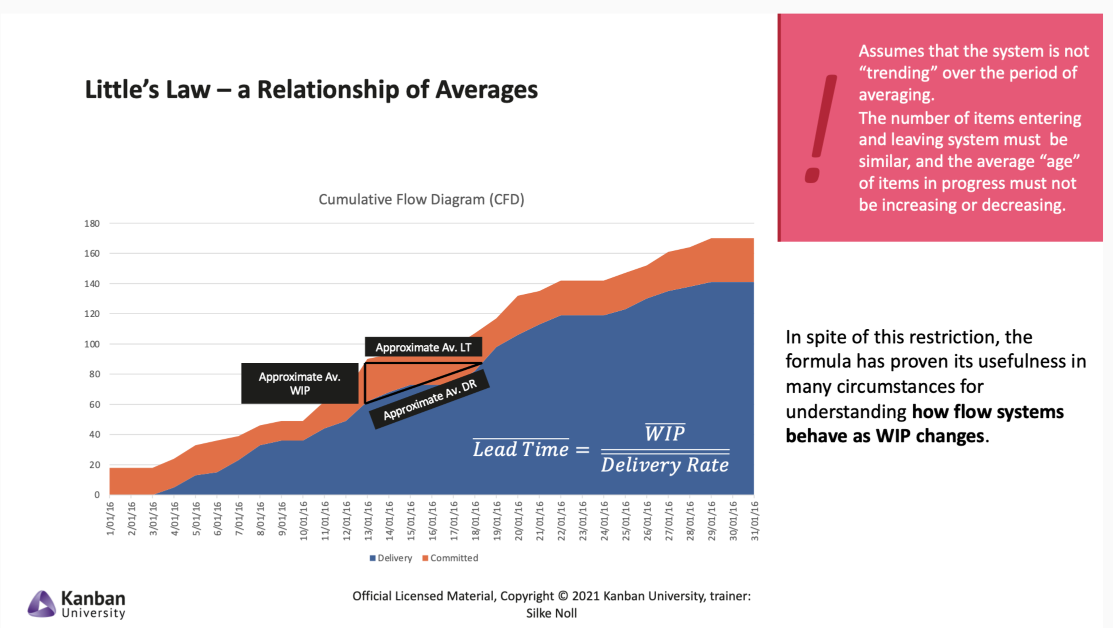
Little's Law – a Relationship of Averages
Cumulative Flow Diagram (CFD)
Approximate Av. WIP
Approximate Av. LT
Approximate Av. DR
$Lead\ Time = \frac{WIP}{Delivery\ Rate}$
Assumes that the system is not "trending" over the period of averaging.
The number of items entering and leaving system must be similar, and the average "age" of items in progress must not be increasing or decreasing.
In spite of this restriction, the formula has proven its usefulness in many circumstances for understanding how flow systems behave as WIP changes.
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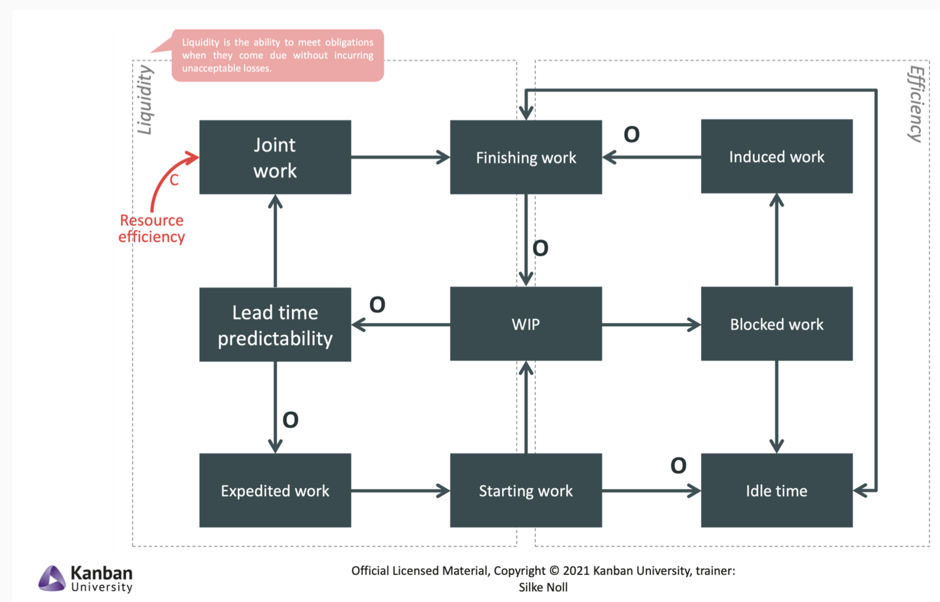
Liquidity
Efficiency
Resource efficiency
Joint work
Finishing work
Induced work
Lead time predictability
WIP
Blocked work
Expedited work
Starting work
Idle time
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