What Causes Us to Fall Behind? Applying Lean Thinking to Avoid Backlogs

CIPMM National Workshop Craig Szelestowski craig@leanagility.com 06-06-2023



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- 1. The major causes of backlogs (variation, overwhelm and waste/failure demand) and how the backlog cycle works.
- 2. How you can intervene to prevent a backlog from forming
- 3. Simple tips to get you started, even if you're not the boss.



Definitions: Backlog

"A large number of things waiting to be done"

"An accumulation of something, especially <u>uncompleted</u> work or matters that need to be dealt with"

"A buildup of <u>work</u> that has <u>not been completed</u> in a <u>timely</u> fashion"



THE BACKLOG CYCLE



How Backlogs Develop

Causes

VARIATION

Variation in:

- volume of work
- # of resources available
- skill profile
- complexity of work
- effectiveness of tools
- other?





UNREASONABLENESS

2. Overwhelmed team, thus reduced productivity



- repeat Steps 2-5, fall further behind
- 5. Fewer files finished, a growing backlog



WASTE

3. Team spends its reduced capacity on non-value added, preventable, work



Overwhelm caused by

UNREASONABLENESS





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✔ files in progress NOT ✔ people



When we "multi-task*", we get less done. *actually, "switch-task"

Time Yourself



Scenario 1 (**Focus-Tasking**) 1. Write:

Multitasking eats time 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

2. Note how long that took.



Time Yourself



Scenario 2 (Context Switching)

1. Write one letter, then one number, one letter, one number, etc:

Multitasking eats time

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

2. Write down how long that took.



Cost of Context Switching

# simultaneous projects	% of time available for each project	% time lost to context switching	Hours per week lost (per person)
1	100%	0%	0 hours
2	40%	20%	6 hours
3	20%	40%	12 hours
4	10%	60%	18 hours
5	5%	75%	22.5 hours

From: Weinberg, Gerald M. Quality Software Management (New York: Dorset House, 1991)



Yerkes-Dodson Curve



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Yerkes RM, Dodson JD . "The relation of strength of stimulus to rapidity of habit-formation". Journal of Comparative Neurology and Psychology 18: 459–482



Square Wheels Guy" http://www.performancemanagementcompany.com/

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I said my name was Marc with a "C"



Limit your work-in-progress to increase focus and productivity

Backlogs are also caused by

WASTE





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The Problem

Procuring Cloud Software > \$ 100k

- Approximately 100 steps/handoffs
- 3-5 months of elapsed time
- Unhappy clients, procurement staff
- Procurement staff overloaded
- Slow process affecting delivery of core business

<u>NOW</u>:

- 3 weeks elapsed time from start to finish, by default.
- No heroics.
- Procurement staff happier, less-stressed.
- Clients delighted.

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SOLUTIONS



ELIMINATE FAILURE DEMAND



Eliminate Failure Demand

Work that is required because something failed the first time.

20-50% of our workload is fixing these problems.





Failure Demand: drains capacity and consumes time but does not add value

Туре	Example
1. Something not done	Document, information missing – go find it
2. Something is incorrect	Wrong information, misplaced info – redo it
3. Something is not clear	Unclear instructions, requirements – go get clarification
4. Something takes too long	Chasing progress, answering







FLOW EFFICIENCY VS RESOURCE EFFICIENCY



"Resource" Efficiency





"Flow" Efficiency





Flow Efficiency in Action

THE "ONE AND DONE" HUDDLE



Work with client via email

- Effort: 7 hours
- Elapsed Time: 20-40 days

Work with client face-to-face, "live"



- Effort: 3 hours
- Elapsed time: 1 day

"One and Done" Huddles

- Kickoff with client, including SME and Legal
- Developing/Refining RFS documents
- Bid Evaluation
- Review draft contract



Four things you can do next

- 1. Identify and Eliminate Variation to stop the root cause of the backlog
- 2. <u>Experiment with structured "One and Done" huddles</u> to create flow efficiency faster, with less effort.
- **3.** Experiment with eliminating Failure Demand so that your clients get it right the first time through.
- 4. <u>Come to the next backlog session</u> *How to Eliminate an Existing* Backlog Concurrent Session # 14 Room 110 at 2:30 pm this afternoon



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