



# Deep Learning + Dojo

Learning deeply Agile & DevOps

# About me



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# Agenda



## Introduction of the problem

Driving an organization transformation involves changing old habits



## Deep learning

What is deep learning and how that can help me?



## Ignition for change

Challenging situations motivates us



## Coaching on developing new skills

Role of the coach on the deep learning process



## Dojo

Impact of deep learning and how to model one with those concepts in mind



## Conclusion

What is next?

# Introduction of the problem



Lean and Agile practices involves change of habits



From books and classrooms we memorize things and don't know how to apply them later



Humans are motivated to change when they see results of the new



We have seen in many places, as part of transformation efforts, coaches and change agents having hard time on changing old habits and teaching new skills on all levels of organization. We have seen intents using well structured workshops, classroom trainings, guided exercises and some executive coaching, as few examples of techniques, being applied very thoughtfully, where new skills or desired behaviors, with very convincing arguments, are presented, understood and soon all forgotten, if applied some day.

“You will become clever through your mistakes” – German proverb

Why is so difficult to change behavior ?  
Or having a lasting learning experience?



# 8 reasons why



We're motivated by negative emotions.



We get trapped by thinking fallacies



We try to change too much ( at the same time )



We under estimate the process



We try to eat the entire elephant



We forget that failure is usually a given

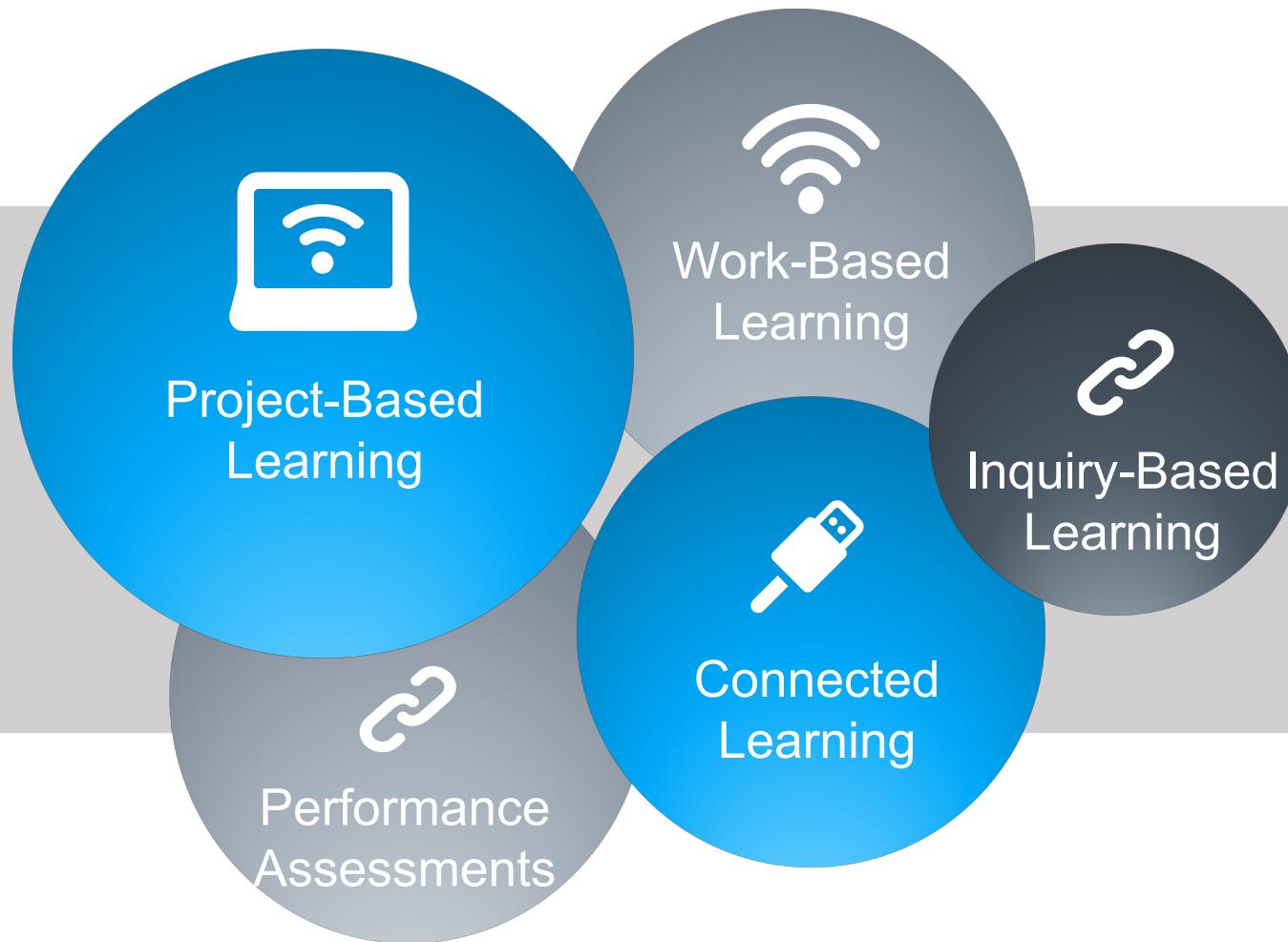


We neglect the toolbox



We don't make a commitment

# What is deep learning ?



“Deeper learning is the process of learning for transfer, meaning it **allows a student to take what's learned in one situation and apply it to another.**”

— Maryellen Weimer, PhD

# And how that can help me?



## CONTENT MASTERY

Students apply new knowledge to real-world situations.



## EFFECTIVE COMMUNICATION

Students demonstrate skills in active listening, clear writing, and persuasive presentation.



## CRITICAL THINKING & PROBLEM SOLVING

Students consider a variety of approaches to produce innovative solutions.



## COLLABORATION

Students work with their peers, assume leadership roles, resolve conflicts, and manage projects.



## SELF-DIRECTED LEARNING

Students use teacher feedback to monitor and direct their own learning, both in and out of the classroom.



## ACADEMIC MINDSET

Students feel a sense of belonging and the motivation to persist through their school work.

# Deep practice and skill building

“I have always maintained that excepting fools, men did not differ much in intellect, only in zeal and hard work.”

– Charles Darwin

Deep practice is a strange concept for two reasons:

- ✓ The first reason is that it cuts against our intuition about talent.
- ✓ The second reason deep practice is a strange concept is that it takes events that we normally strive to avoid—namely, mistakes—and turns them into skills. To understand how deep practice works, then, it's first useful to consider the unexpected but crucial importance of errors to the learning process.



# Three rules of deep practicing

Try again. Fail again. Fail better.

- Samuel Becket

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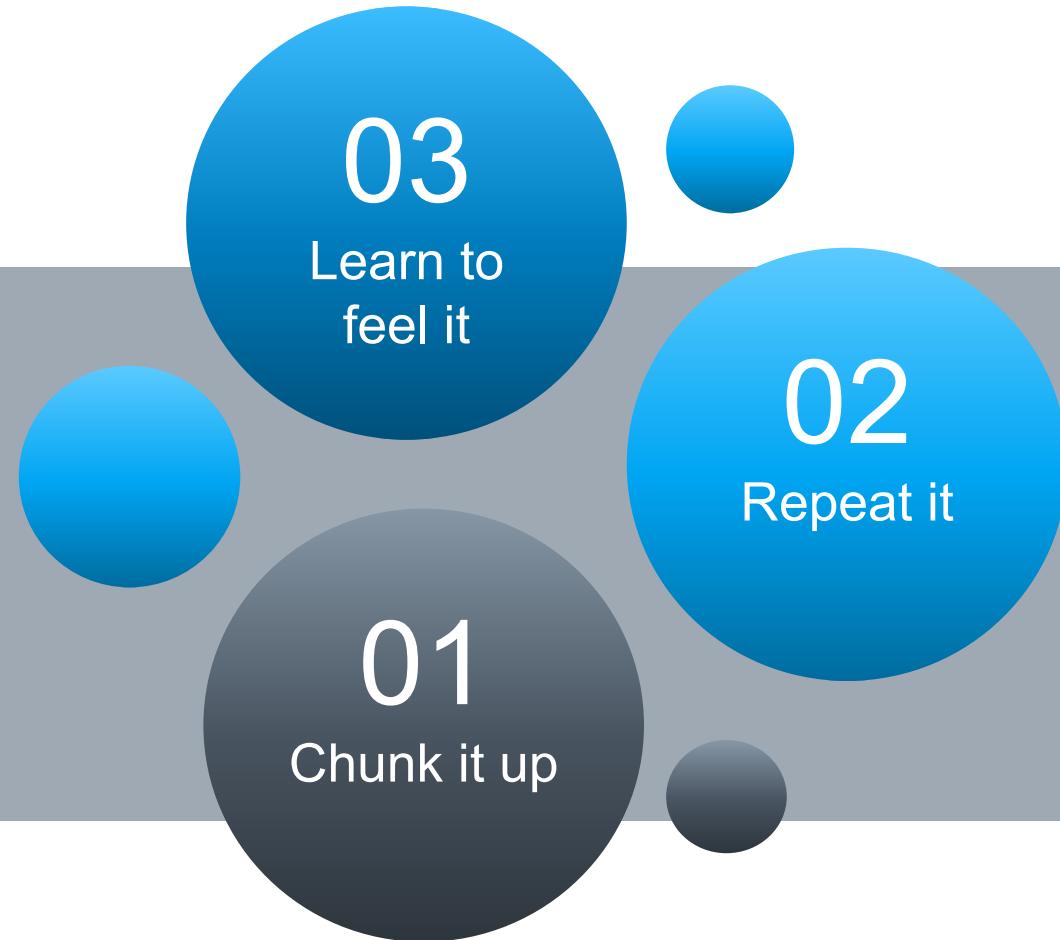
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# Three rules of deep practicing

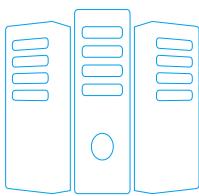


We need failures with the learning effect of the learning loop, the participants took at the task as a whole, as one big chunk, and the effort to develop the new skill—and that makes deep practicing. First, they play with the skill, closing the gap between your current state and the target—the impulse down the nerve fiber, fixing errors, honing the circuit.

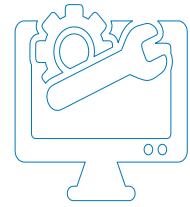
“Try again. Fail again. Fail better” - Samuel Becket

# Ignition for change

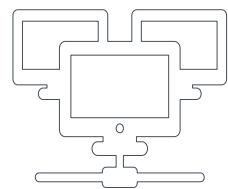
As we agile tend to estimate on relative points, its difficult to give up on linking to a more "concrete" thing like hours. This is a practice from unmatured teams or teams starting the journey. This is not the preferred way as a mindset shift needs to be enforced.



Dates don't account for non-project related work that inevitably creeps into our days : emails, meetings, and interviews that a team member may be involved in



Dates have an emotional attachment to them. Relative estimation removes it.



Each team will estimate work on slightly different scale, which means their velocity will naturally be different. This, in turn, makes it impossible to play politics using velocity as a weapon



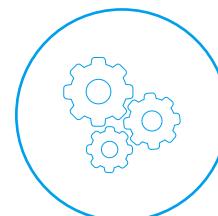
Once you agree on the relative effort of each story point value, you can assign points quickly without much debate.



Story points reward team members for solving problems based on difficulty, not time spent. This keeps team members focused on shipping value, not spending time

# Coaching for new skills

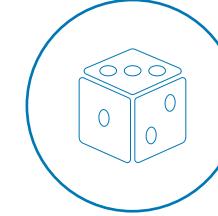
What does a story point represent?



What is included within a story point estimate?



Are story points an excuse for not being able to estimate correctly?



Who should be involved in story point estimation?



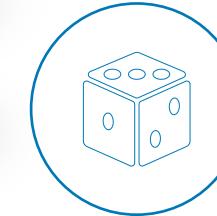
How do we plan/schedule a project using story points?



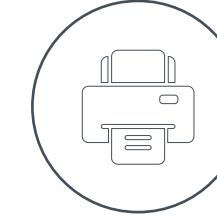
Can story points be standardized across teams?



How do we know if a team is getting better at estimation?



Why are story points better than estimating in hours or days?



# Dojo + Deep Practice

This is a iterative process you must do during your PBRs ( my preference ) or as part of estimation meeting, for all stories marked as “ready” on your backlog.



Always estimate stories against each other. We thus need a frame of reference, to relatively size stories

Define the buckets you will have. My suggestion to have at most 4 buckets.

Relatively size each story against benchmark story by discussing only the implementation details that affect its size

Place each story into a bucket

At the end, for each story bucket, do a quick review of the stories in them. Validate they are all reasonably close in “size” to each other.

# Dojo structure



Problem : When we estimate relatively in size, we get different developers would complete the same 2 size story in different speeds.

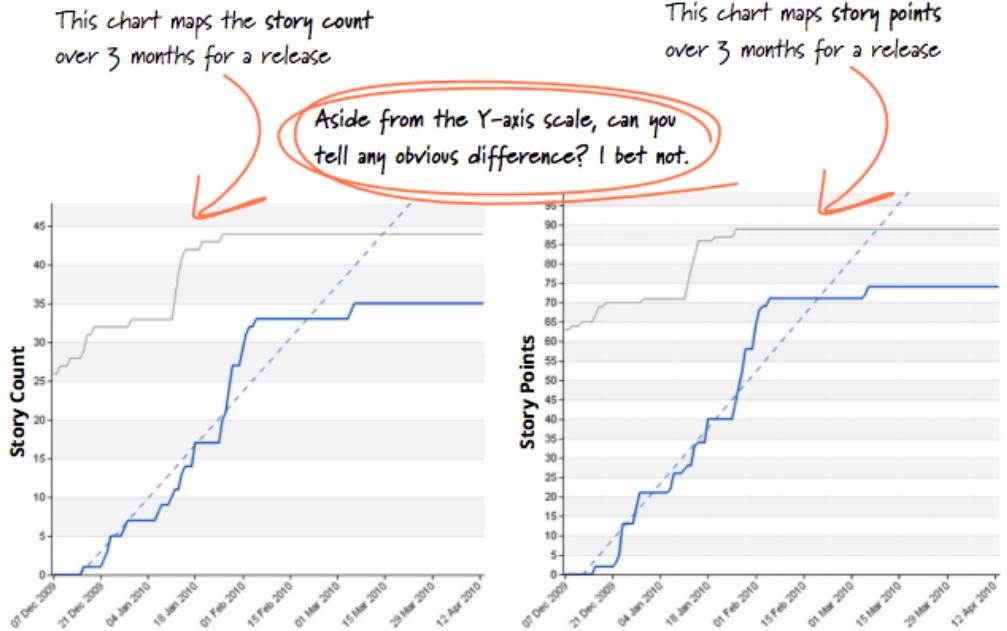


The theory says that if we calculate the velocity based on speed that each team member completes the same size story, then this deviation on speed will not matter, when we define a scope for a fix period of time

# Expected results

This calculation is considering the bucket theory and the concept of individual speeds over a fix period of time.

# Now its your time



Introduced by Thoughtworks consulting company after experience in tens of projects with clients

Over time, when doing the distribution in groups ( like buckets ) by points, they saw that most og the stories were getting into the same bucket

Comparing the burn up graphs based on story points or number of cards, they started to look all the same, independent of the size of the cards after a span of 2 weeks.



Changed to follow progress using story count on burn up



Still use estimated points as reference for prioritization



Still keep the estimations sessions. There are still high value on team conversation catalyzed by gauging the size of the work

# In summary



blablsa the purpose of estimation



Explore different ways to estimate and pick one that suits your team/product



Understand that each team's approach to estimation evolves as the product progresses or team matures



In agile model, the estimation is not to track progress against a plan. Its to help define scope of a release



As important as the estimation is the conversation and understanding it generates



Understand velocity is as important as understand the size of the story

# Thank you!!

“ So whenever you’re thinking of asking for an estimate, you should always clarify what decision that estimate is informing. If you can’t find one, or the decision isn’t very significant, then that’s a signal that an estimate is wasteful. “

Martin Fowler

