



Learn to Learn

An introduction to thinking like a data scientist

Objectives:

Explain the three-stage learning process

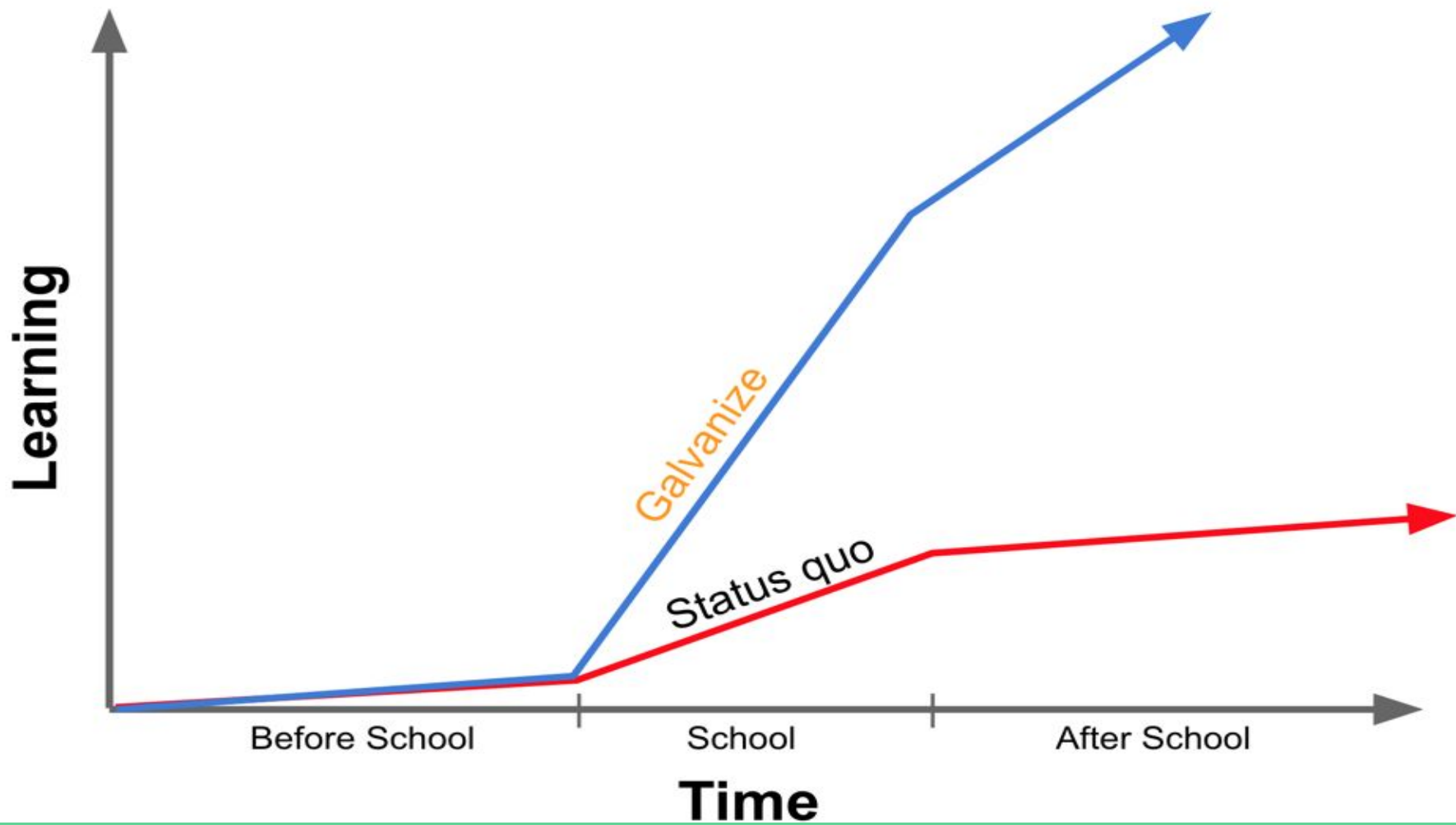
Identify strategies you will use in each of the three stages of the learning process

L2L - Why It Matters

Data scientists approach problems in a methodical and disciplined manner. Start practicing to be a good engineer now by changing the way you learn.

Practice does not make perfect.
Perfect practice makes perfect.

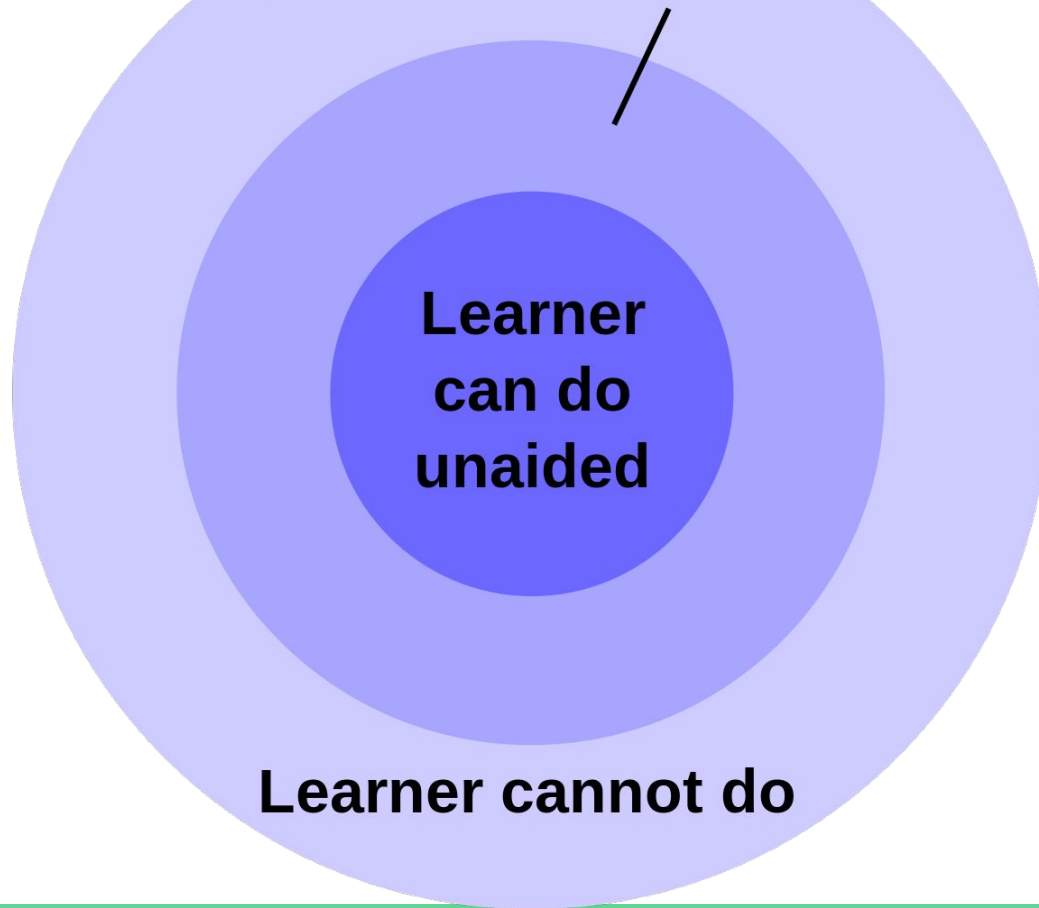
Vince Lombardi



Set the stage

- Clear the stage
- Clarify the *what* and the *why*
- Prioritize process over product

**Zone of proximal development
(Learner can do with guidance)**



**Learner
can do
unaided**

Learner cannot do

Check your learning

What are some of the ways you can set the stage?

Play

- Wrestle with it
- Take risks



Why don't people like to take risks?

WEBDOM

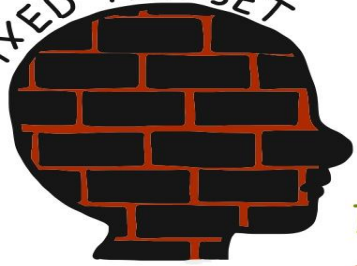


“Some failure in life is inevitable.
It is impossible to live without failing at
something, unless you live so cautiously
that you might as well not have lived at
all – in which case, you fail by default.”

— J. K. Rowling

10 Growth Mindset Statements

FIXED MINDSET



What can I say to myself?

INSTEAD OF:

I'm not good at this.

I'm awesome at this.

I give up.

This is too hard.

I can't make this any better.

I just can't do Math.

I made a mistake.

She's so smart. I will never be that smart.

It's good enough.

Plan "A" didn't work.

TRY THINKING:



- 1 What am I missing?
- 2 I'm on the right track.
- 3 I'll use some of the strategies we've learned.
- 4 This may take some time and effort.
- 5 I can always improve so I'll keep trying.
- 6 I'm going to train my brain in Math.
- 7 Mistakes help me to learn better.
- 8 I'm going to figure out how she does it.
- 9 Is it really my best work?
- 10 Good thing the alphabet has 25 more letters!

Play

- Wrestle with it
- Take risks
- Have fun!



Check your learning

Why is it important to have fun, and how might you do it?

Reflect

- Self assess
- Ask new questions
- Repeat



Check your learning

What are some questions you can use to self assess?

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Questions?

<https://github.com/gSchool/instructional-design-wiki/wiki/Learn-to-Learn#repeat>