

# Adopting Scala From Inside and Out

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# THE EDIT

Sunshine  
STYLE  
statements  
Bright bikinis,  
chic sun hats  
and the new  
beach bag

## HOT right NOW


From sleek swimsuits  
to beach-to-bar  
dresses – your ultimate  
vacation wardrobe

### WHAT TO BUY NOW



#### THE NOW BAG

Artisanal Manu Atelier leads the way



#### CLOSET CLASSICS

Anything-but-basic wardrobe staples

https://www.net-a-porter.com/Shop/Bags/All?pn=1&npp=60&image\_view=product&dScroll=0&cm\_sp=Homepage\_-Mk1\_-TheNowBag\_-09-06-16

# Our Team

Formed in June 2015

No initial Scala experience

Initially 4 devs, 6 by September, now 8

Currently ~100k LoC

# Underscore

Initial training

Ongoing mentoring

2 days a week over 3 months

# Agenda

Motivations and goals

Insights into teaching and learning

How to teach/learn

What to expect

# Motivations





Performance





Reliability



Powerful libraries





Familiarity





Increased productivity

# Transition Goals

productivity



time





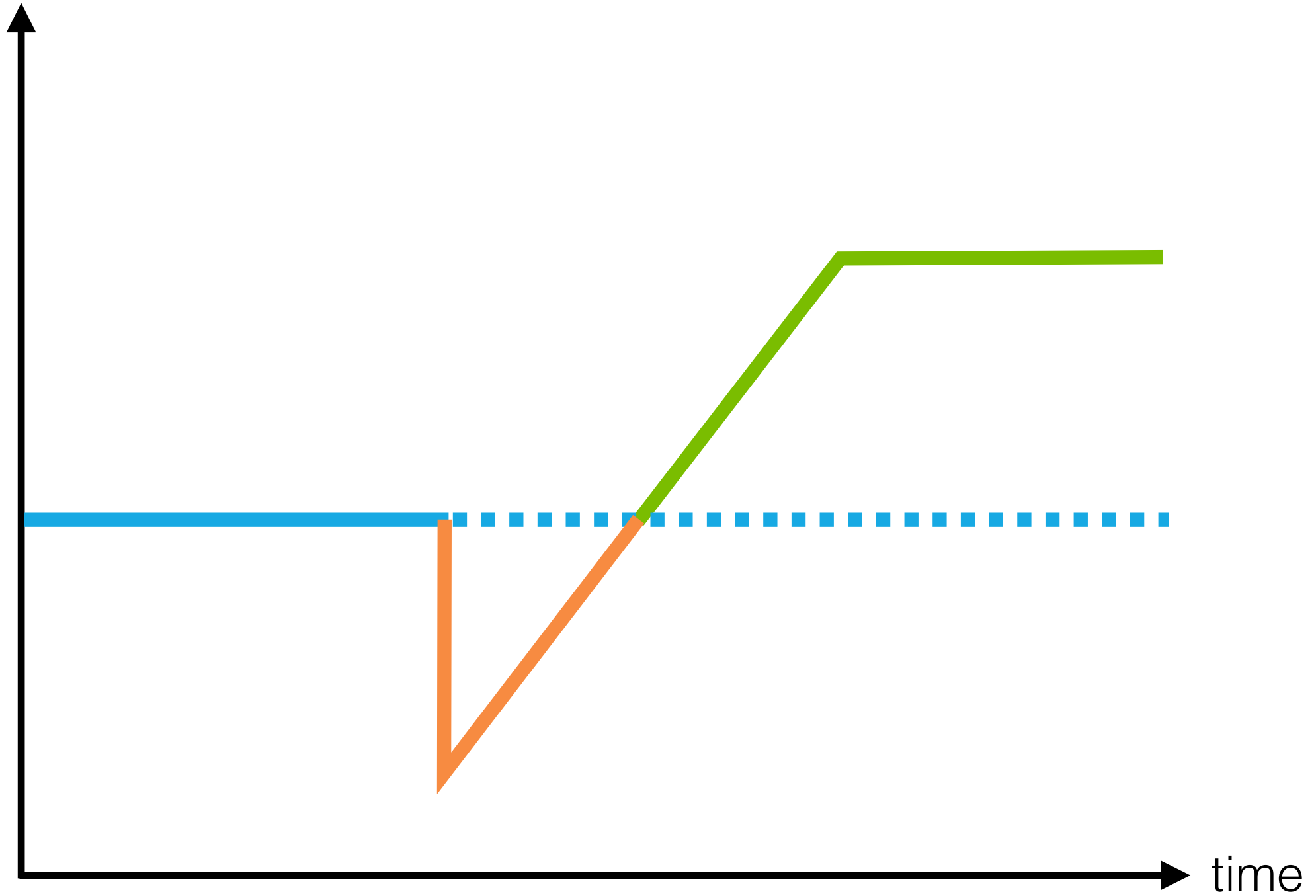
productivity



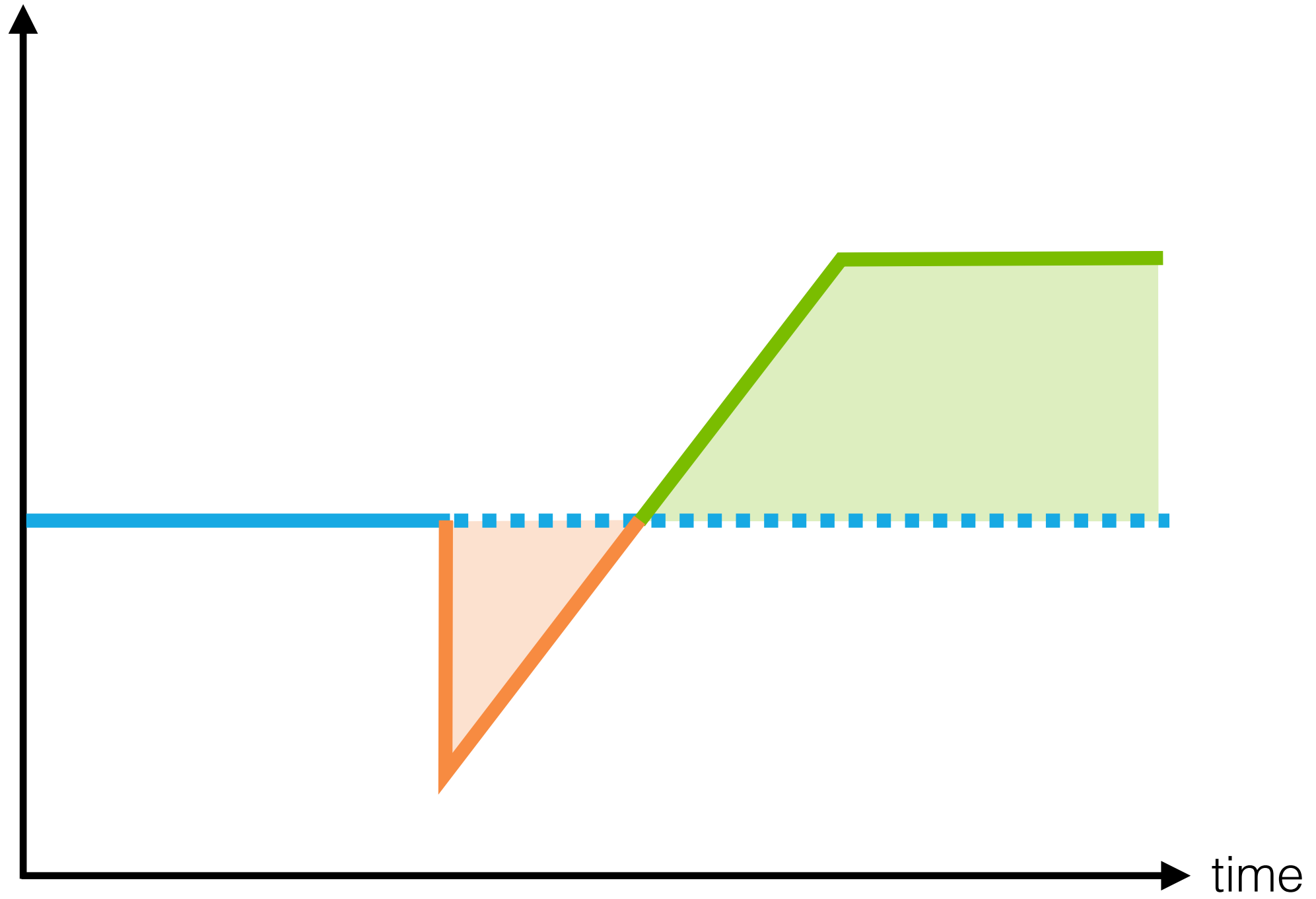
time



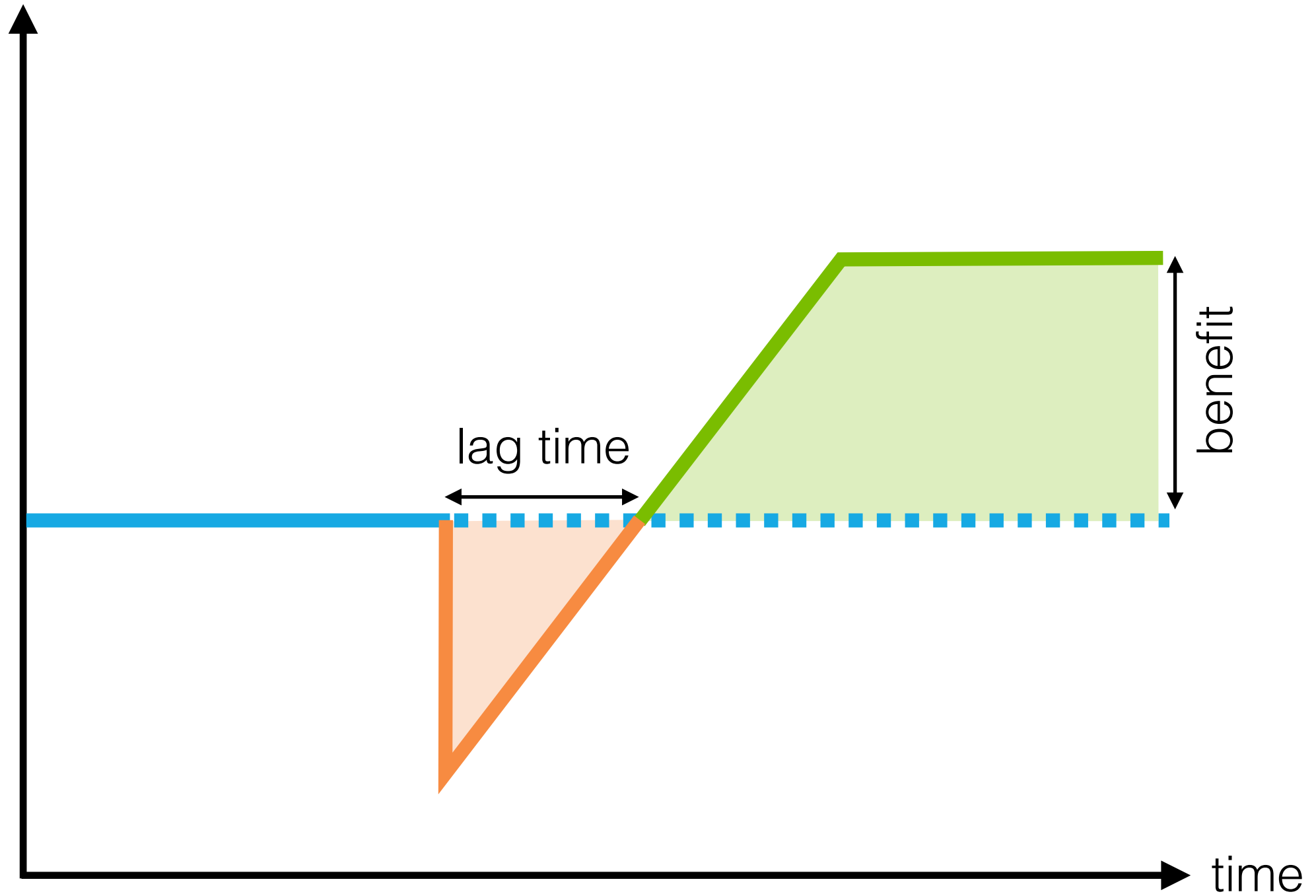
productivity



productivity



productivity



# How we Learn

# Insight #1

## It takes time to learn





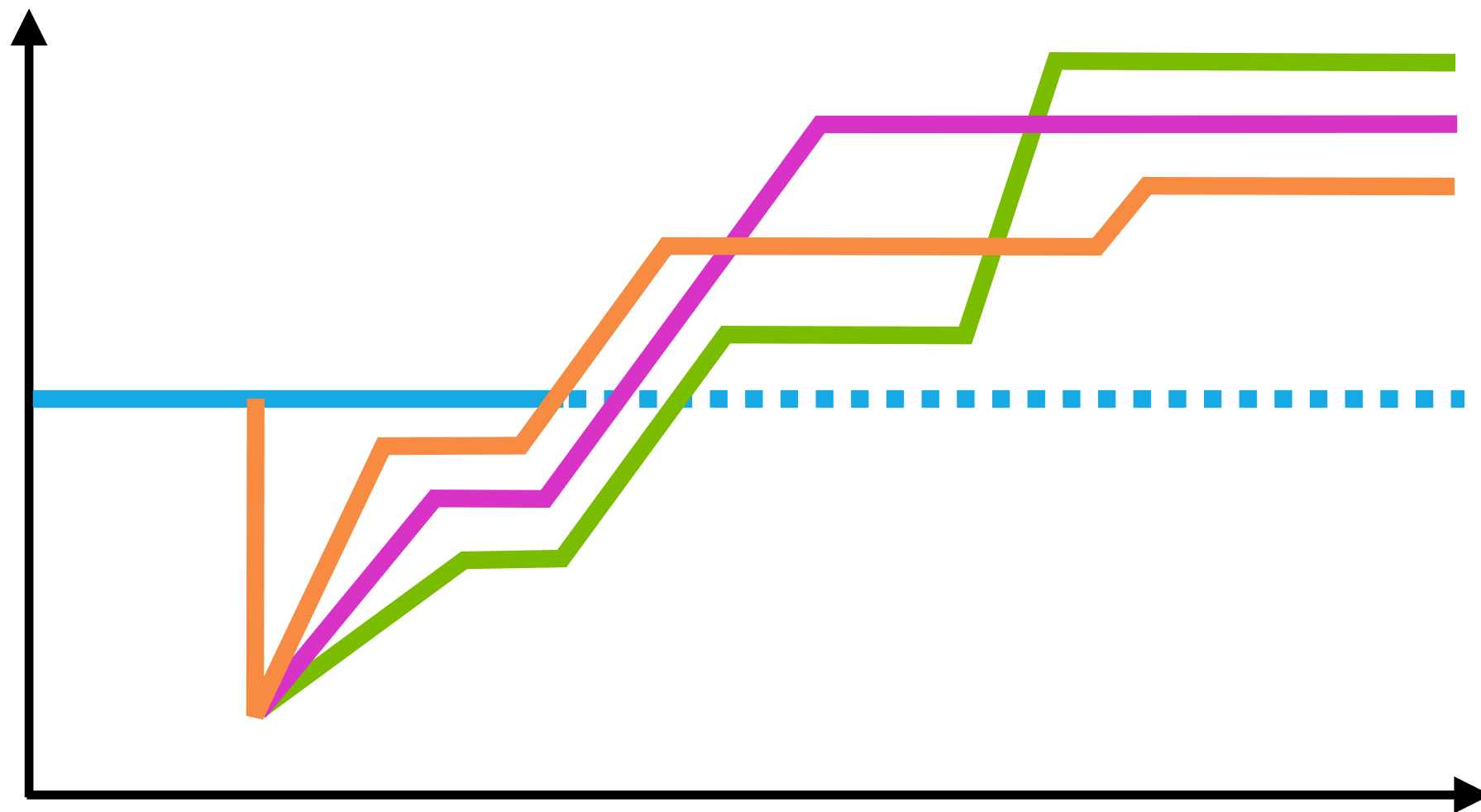
# Insight #2

## Knowledge vs application

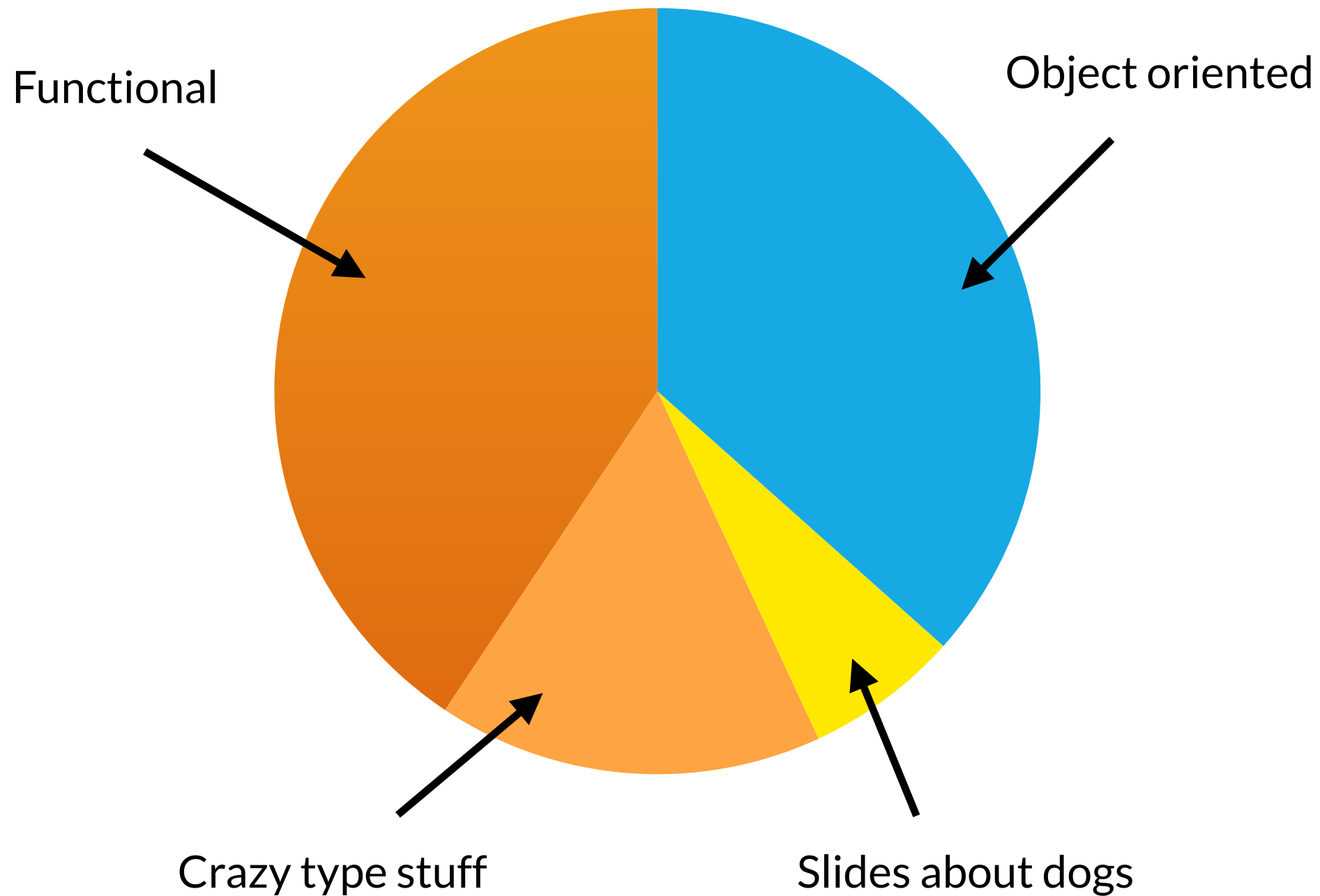


## Insight #3

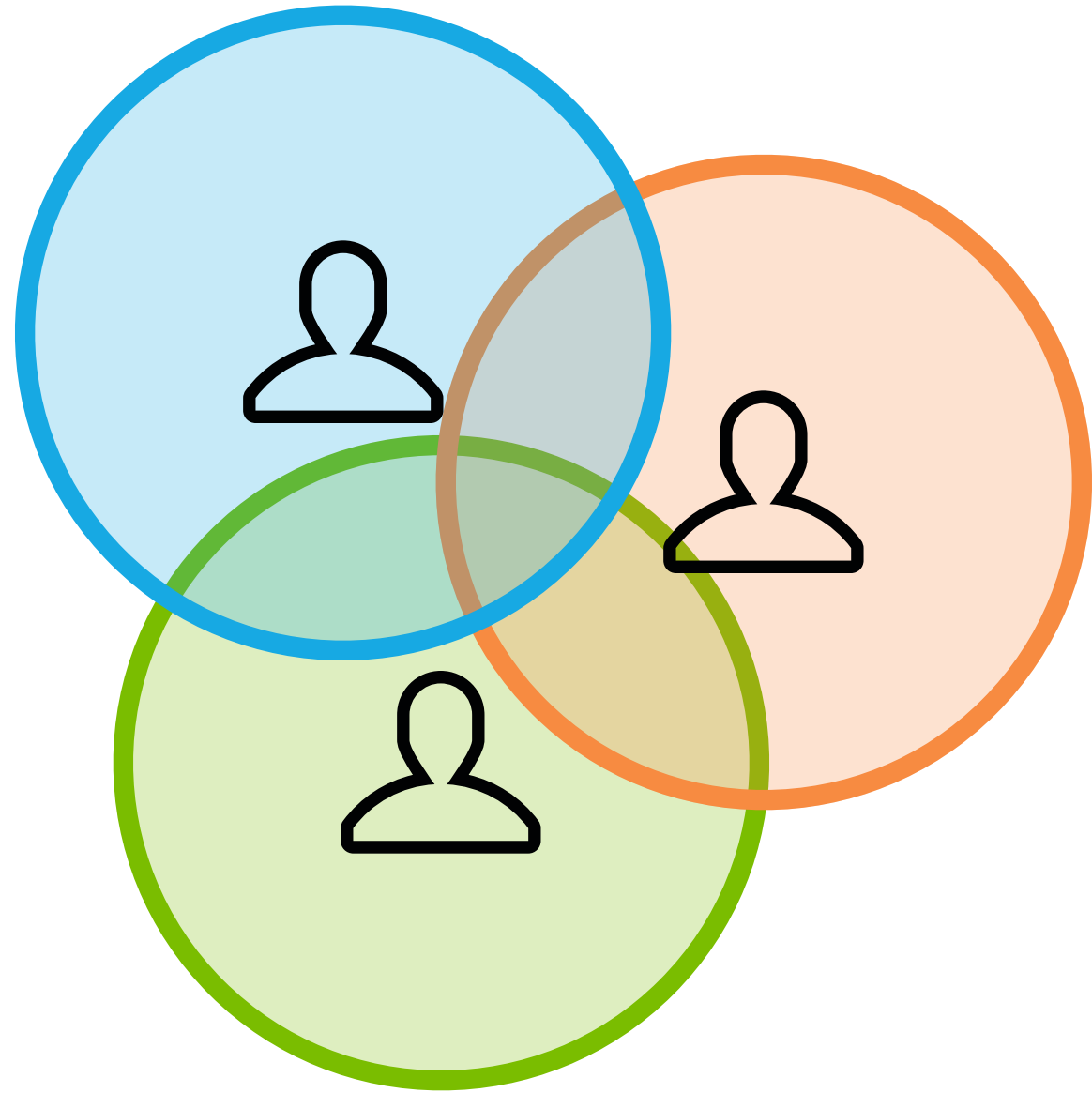
People learn at different rates

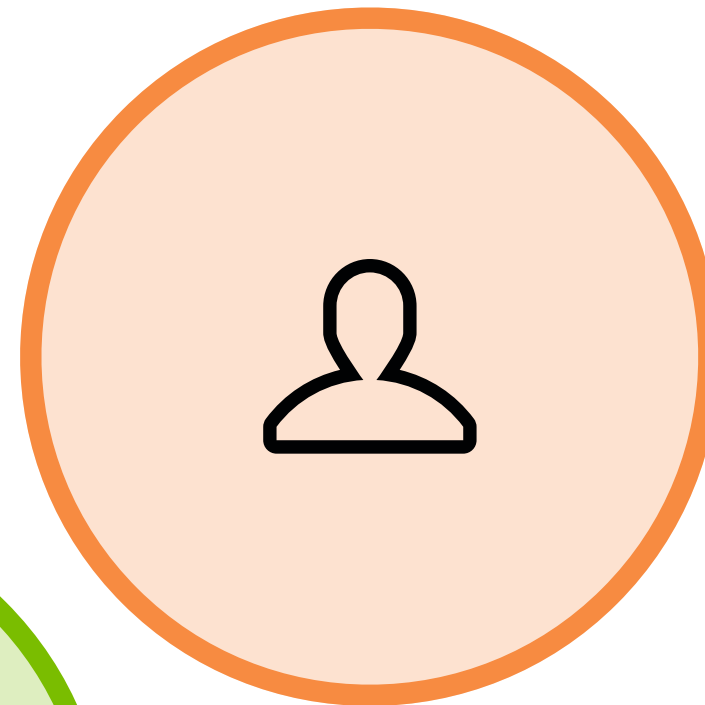


# Scala composition

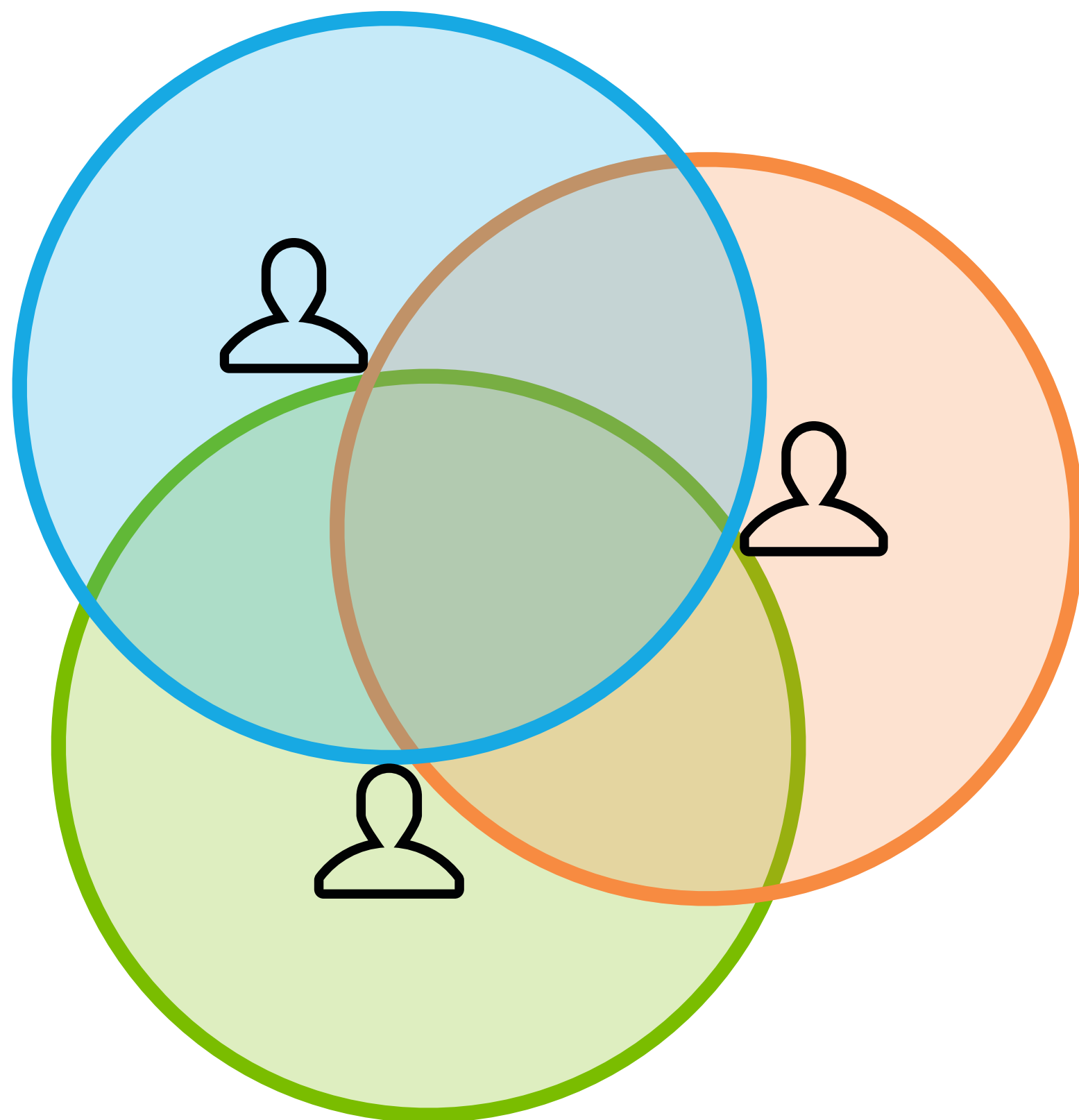












Insight #4

Familiarity  $\neq$  similarity

“Java without the Semicolons”

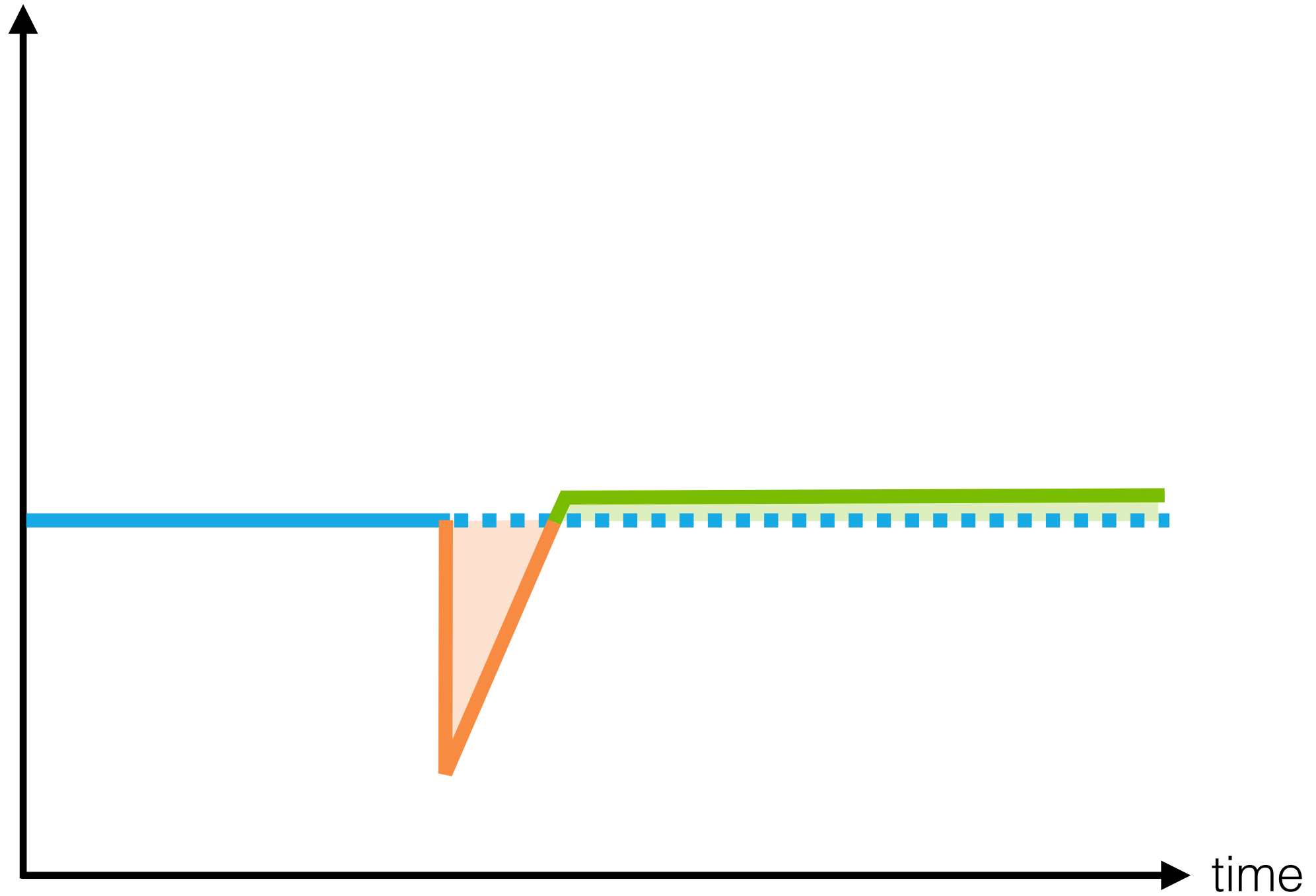
```
public int getAverageRevenue(Film[] films) {  
    int total = 0;  
  
    for(int i = 0; i < films.length; i++) {  
        total += films[i].getRevenue();  
    }  
  
    return total / films.length;  
}
```

```
def averageRevenue(films: Array[Film]) = {  
    var total = 0  
  
    for(film <- films) {  
        total += film.revenue  
    }  
  
    total / films.length  
}
```

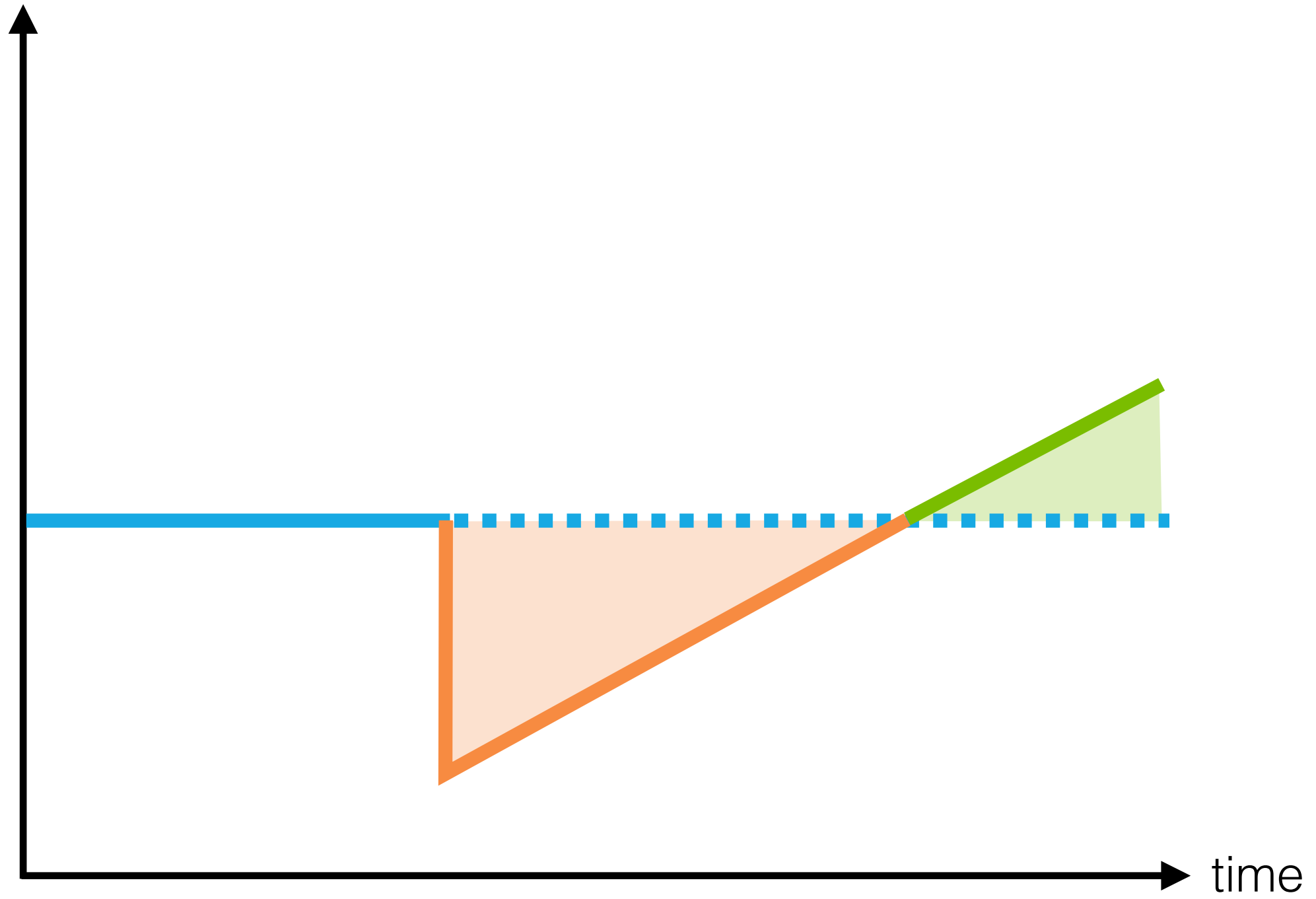
```
def averageRevenue(films: Seq[Film]) =  
    films.map(_ .revenue).sum /  
    films.length
```



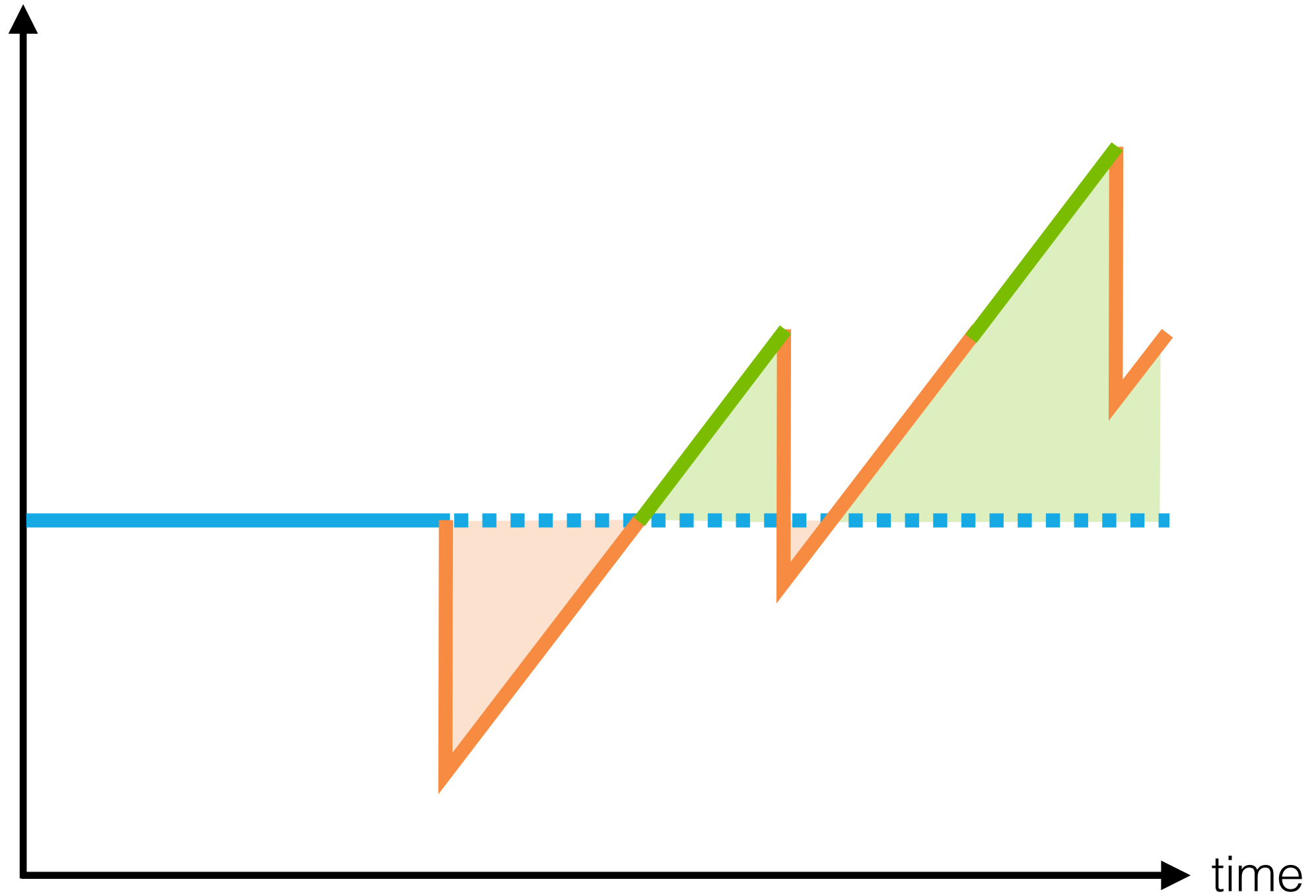
productivity



productivity



productivity



# Insights

It takes time to learn  
we can't learn everything in the classroom

Knowledge vs application  
we have to practice as we learn

People learn at different rates  
we can benefit from learning together

Familiarity  $\neq$  similarity  
embrace new concepts to benefit from them

# How to Learn & Teach

# Learning Toolkit

Collaborative learning

Feedback

Mastery learning

Meta-cognition and self-regulation

Peer tutoring

# Learning Techniques

Training courses

Peer review

Pairing

Workshops and dojos

# Training Courses

Initial knowledge boost ✓

Direction for further study ✓



# Training Courses

Initial knowledge boost ✓

Direction for further study ✓

Rate limited !

Require *immediate* follow-up !

# Peer Review

Promotes discussion ✓

Exchanges knowledge ✓

# Peer Review

Promotes discussion ✓

Exchanges knowledge ✓

Must be inclusive !

Must be positive !

Must be focused !

# Focusing Peer Review

Scalariform  
code formatter

Scalastyle  
linter

Wart Remover  
extra compiler checks

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YMMV !

# Pairing

Good knowledge transfer ✓

Benefit from discussion *and* coding ✓

# Pairing

Good knowledge transfer ✓

Benefit from discussion *and* coding ✓

Use proper technique !

Situational benefits !

Hard work !

# Workshops and Dojos

Pairing and “Randori” formats ✓

Katas and “Mob programming” ✓



# Workshops and Dojos

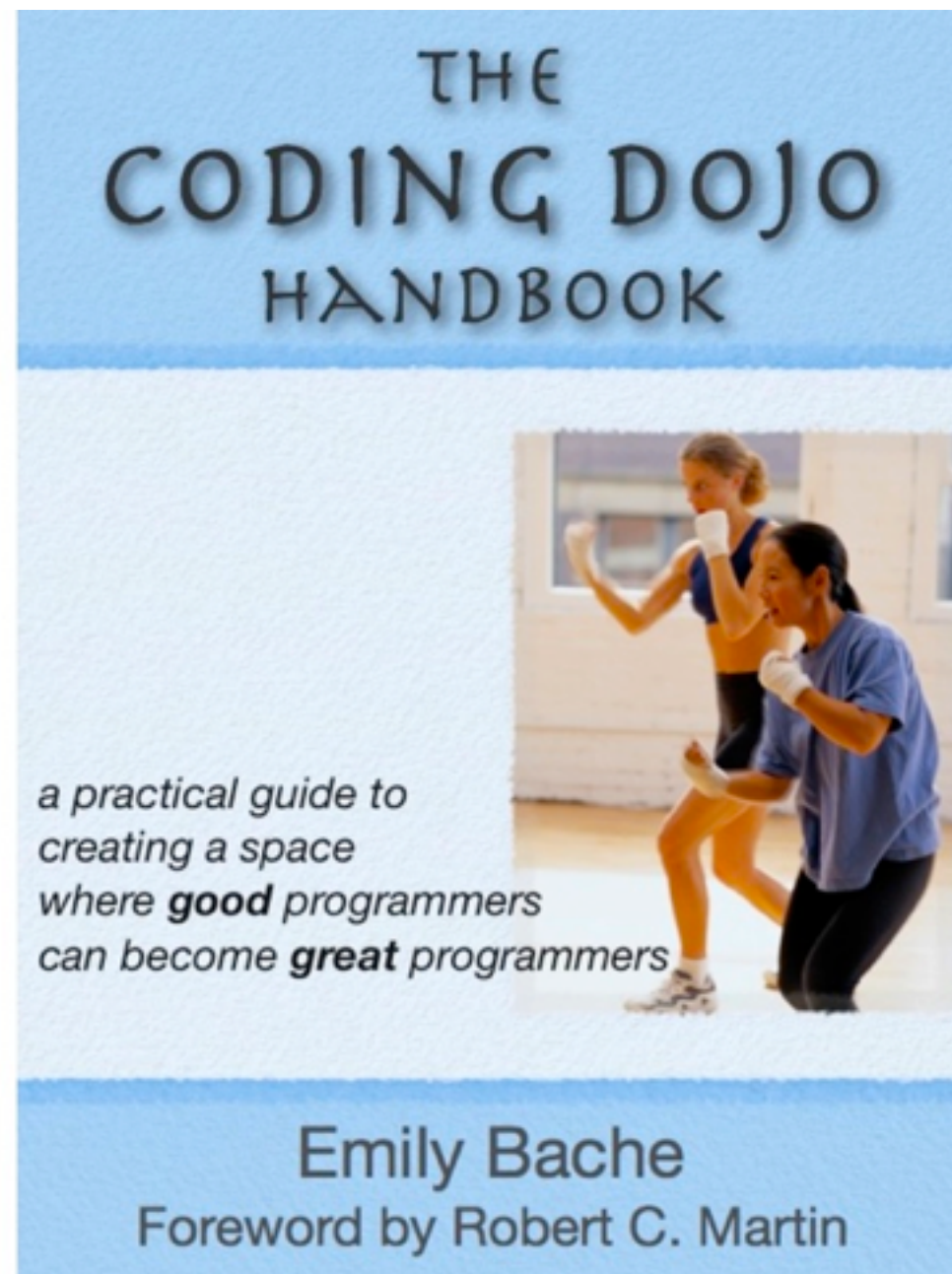
Pairing and “Randori” formats ✓

Katas and “Mob programming” ✓

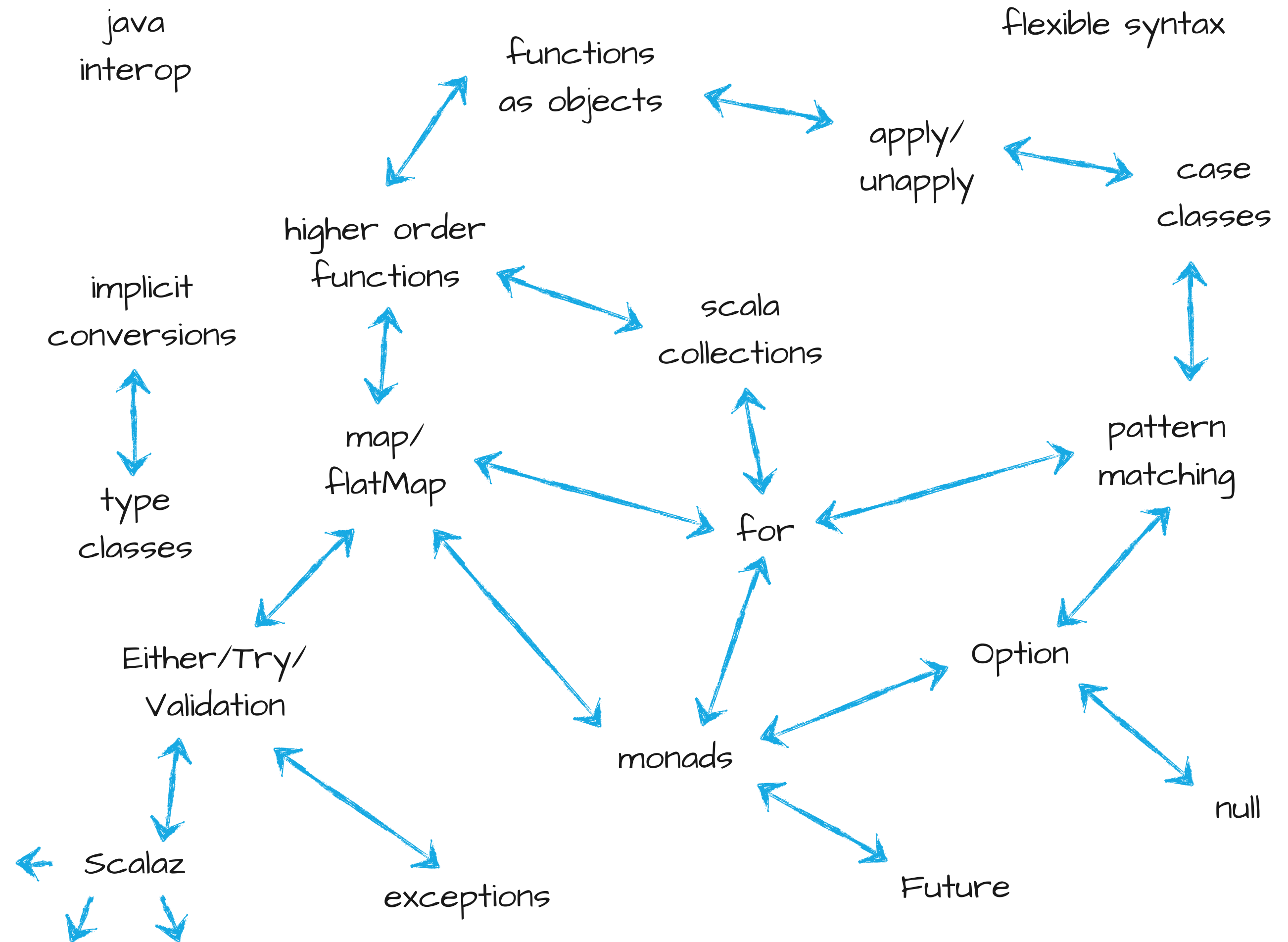
Don't require people to prepare !

Book clubs !

# Workshops and Dojos



# What to Learn



# Essential Scala: Six Core Principles for Learning Scala

Noel Welsh, Scala Days Amsterdam 2015

# What to Expect



Tip #1

It's ok to make mistakes

Tip #2  
FP is different

Tip #3

Monads ~~are~~ aren't scary

Tip #4

Scala supports  
multiple styles

Tip #5  
Code review  
attracts comments

Tip #6  
Experiment!



# Thank you

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"Golden Baily" - I Have No Idea What I'm Doing (and other studies)

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