

Coaching Games for Teaching Agile Software Engineering

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Context

- Third year module on Agile Software Engineering
- Taught with Suzanne Embury
- Cohort size: 100
- Assessment: 100% exam

Week 1: Introduction and Agile Overview

Week 2: Problems with BUFR

Week 3: Writing User Stories

Week 4/5: Planning with User Stories

Week 6: Agile Software Testing

Week 7: Behaviour Driven Development

Week 8: Test Driven Development

Week 9: Configuring DevOps Pipelines

Week 10: Feedback in DevOps Pipelines

Week 11: Retrospectives

LegoXP

- Aim: to introduce general agile concepts, such as User Stories, Iterations, Client Communication via the building of a lego animal

Iteration 1:

Team select features to implement from a given backlog

Team get 15 mins implementation time

Client signs off on features

Iteration 2:

More possible features introduced to backlog

Team select features to implement

Team gets 15 mins implementation time

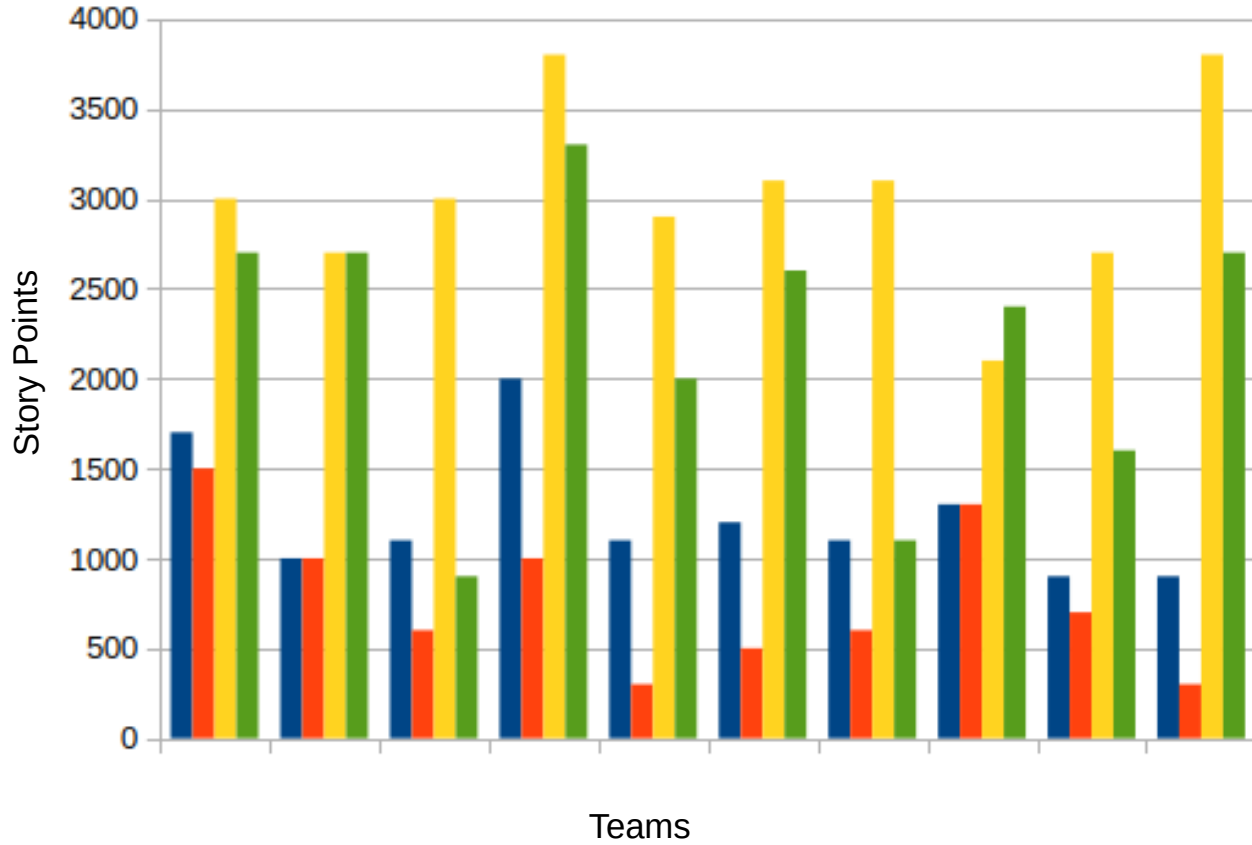
Client signs off on features

Reflection:

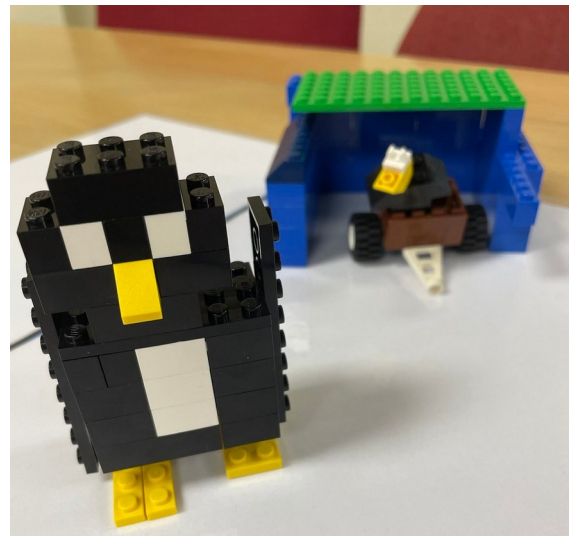
Discuss differing behaviours of teams between iterations

Analyse story points promised-vs-delivered

Demonstrate wonderful creations



- Planned 1
- Delivered 1
- Planned 2
- Delivered 2



The “Specification Game”

- Aim: to demonstrate problems associated with BUFR and lack of client communication (or.... Advantages of partial spec and good client comms)

Part 1:

Teams split into 2 groups:

- Analysts
- Devs

Analysts view a drawing,
writing a specification of this

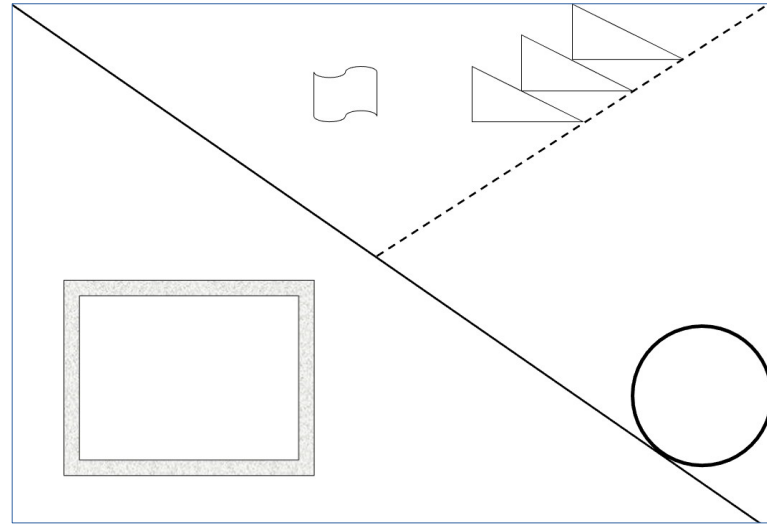
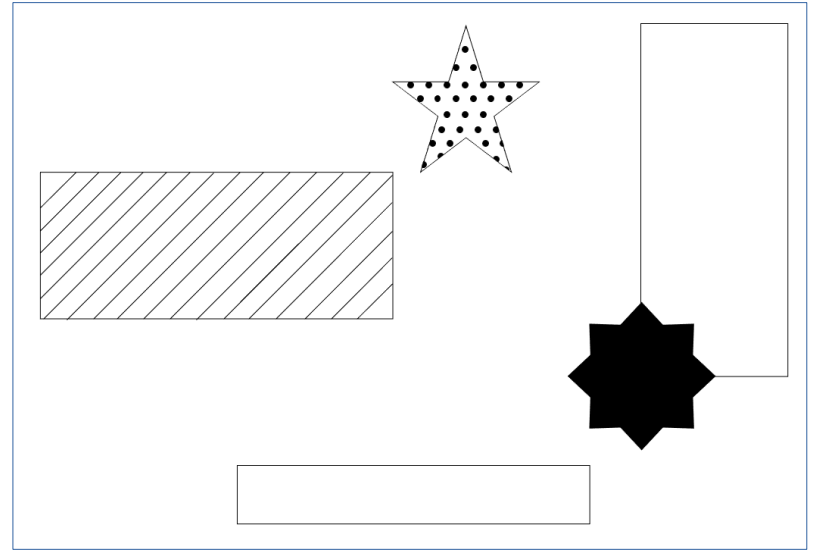
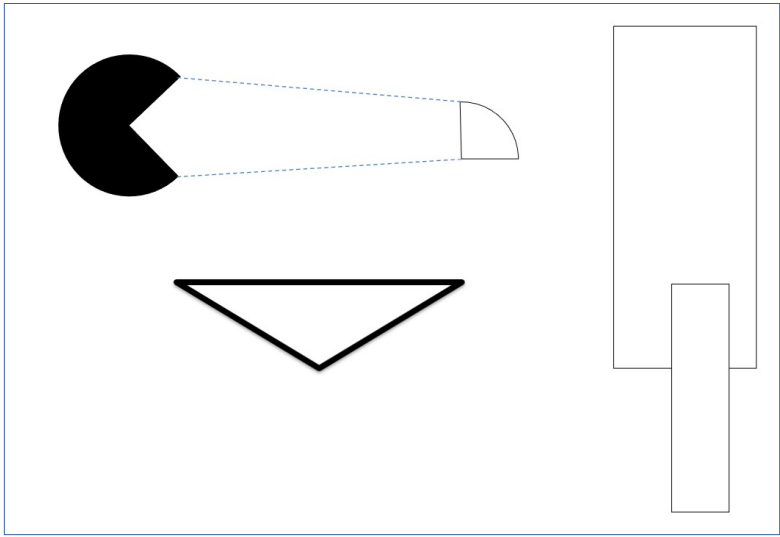
Devs then reproduce the
drawing from the spec

Devs and analysts CANT
confer!

Part 2:

Teams get short time to
review drawing

Devs and analysts CAN
now talk



Anonymised Student Feedback

Can't Talk

Stressful

Frustrating

Confusing

My Brain
Hurts!

Hectic

Can Talk

Fun

Relaxed

Clear,
Efficient,
Reassuring

Easier

Confident

Anonymised Student Feedback

4. I can appreciate how the workshop activities are relevant to Agile development (0 point)

[More Details](#)

[Insights](#)

- Agree
- Neutral
- Disagree



*"I think the workshops were a great idea to make the content **more interactive and more enjoyable.**"*

*"Really **engaging and useful** workshops, which made me actually **want to attend.**"*

9. Which was your MOST favourite workshop? (0 point)

[More Details](#)

[Insights](#)

- Lego (wk 1)
- BUFR (Wk 2)
- User Stories (Wk 3)
- Planning (Wk 4/5)



*"Doing workshops is a **super memorable way** of learning this stuff!"*

10. Which was your LEAST favourite workshop? (0 point)

[More Details](#)

[Insights](#)

- Lego (wk 1)
- BUFR (Wk 2)
- User Stories (Wk 3)
- Planning (Wk 4/5)



*"I've really enjoyed the course unit so far. It's the first one I've taken which I think has implemented a **workshop-style format well**. I cannot fault the games in Weeks 1 and 2, as **frustrating as they were from a customer/analyst point of view** when my team were doing something totally different to what I'd asked!"*