

## Estimating the Work

A Module in Agile Fundamentals

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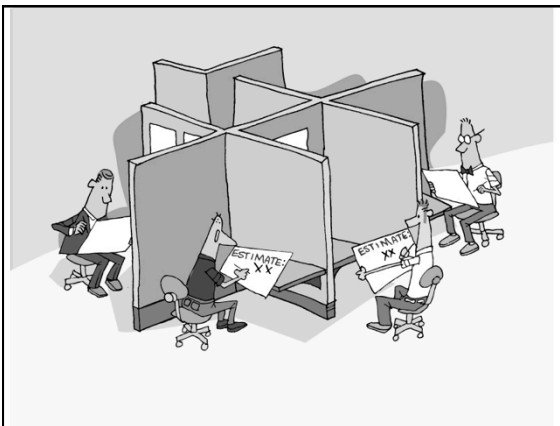
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## Estimating the Effort

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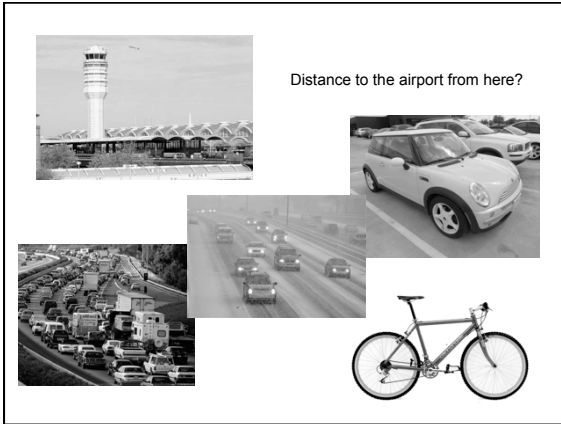
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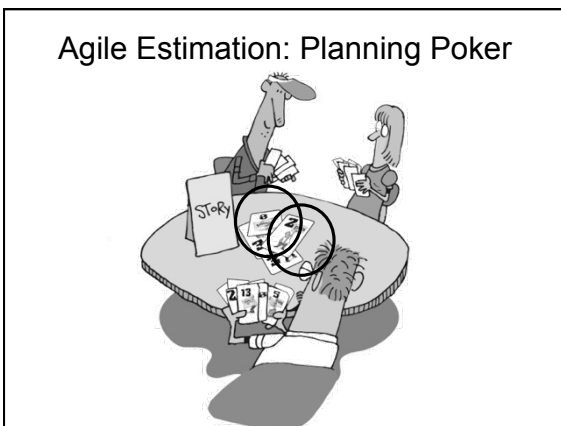
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### Agile Estimation: Planning Poker



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### Agile Estimation: Planning Poker



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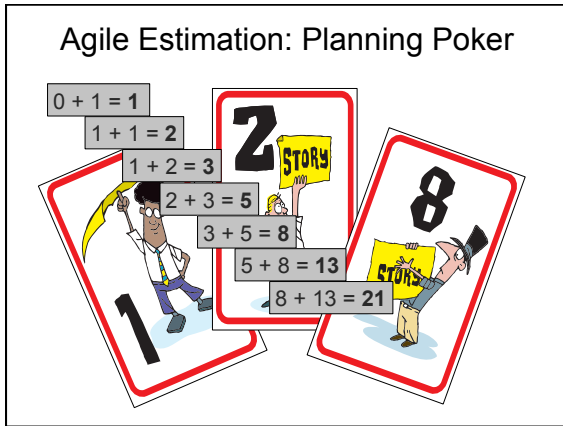
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### Agile Estimation: Thrown Estimates

- Like "Rock Paper Scissors"
- Use finger counting
- Everyone "throws" their estimate after a count of 3
- "One, two, three, Throw!"
- Can estimate 1, 2, 3, or 5

1

2

3

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ThoughtWorks STUDIOS <http://martinfowler.com/bliki/ThrownEstimate.html>

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### Agile Estimation: Thrown Estimates

Zero

1

2

3

5

8

10

Don't know

ThoughtWorks STUDIOS

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## Agile Estimation: Thrown Estimates

- 10 often means “too big” or “too many unknowns”
  - Discuss the unknowns
  - Individuals without much knowledge can abstain
  - Re-throw



ThoughtWorks  
STUDIOS

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## Agile Estimation: Thrown Estimates

- Discuss only if there is disagreement
  - If everyone agrees, then there is no need to discuss
  - Discuss the unknowns – “Why do you think it’s a...”
  - Don’t try to convince people to change
  - Re-throw

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## Agile Estimation: Tee Shirts



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## Relative Sizing Tips

- All stories are sized relative to another
- Sort out the stories and find the smallest
- Size all other stories relative to that one.
- Twice as big, three times as big, etc

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## Relative Sizing Stories

- Using the stories you wrote for your animal
- Size the stories relative to each based on....
  - The effort it would take to develop this story
  - Note any assumptions you are making
  - It's the team getting it to "done"

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## Spikes

Solve hard technical problems  
through real experiments...  
without tampering with  
production code

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How much can we  
do?

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Velocity



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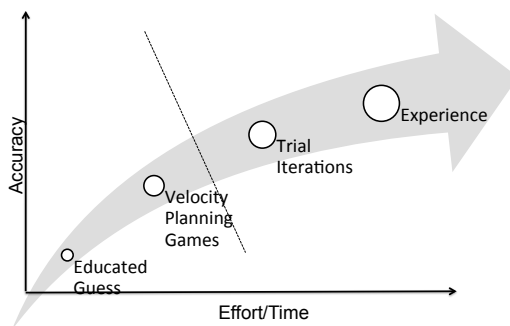
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How to Derive a Planning Velocity



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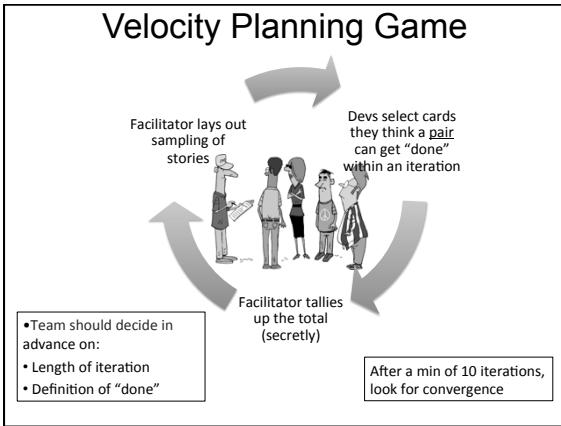
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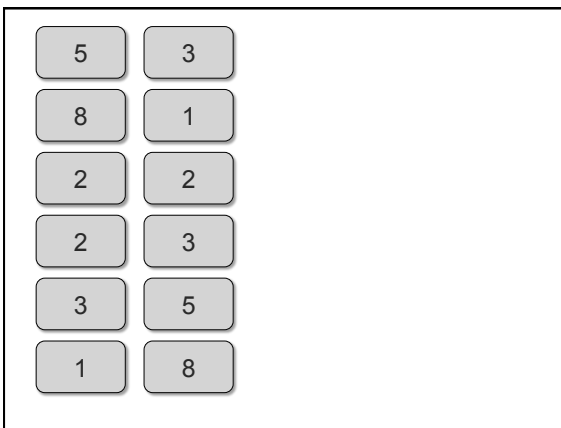
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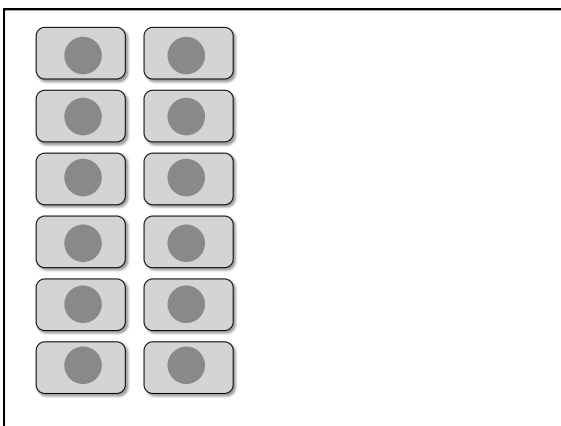
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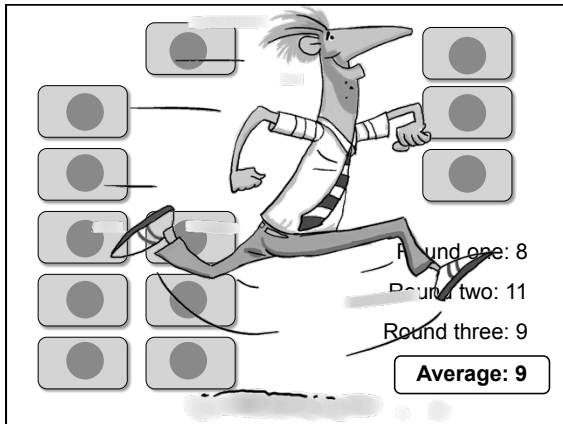
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### Estimate your velocity

- Get back into your groups
- Use the estimates you developed a few minutes ago
- How many stories could you complete in a single iteration?

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### How Many Pairs?

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- Unfortunately this is often more art than science
- But, it will probably be influenced by:
  - Availability
  - How many different feature sets/subsystems there are
  - How many points in the total
  - Gut feel – “too many cooks in the kitchen”



**ThoughtWorks**  
**STUDIOS**

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# How long?

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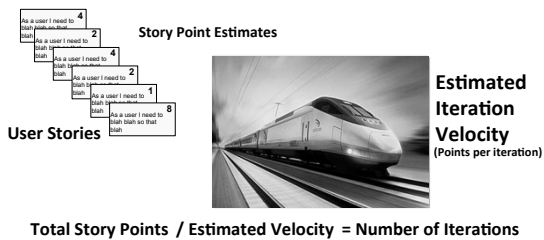
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## How many iterations?



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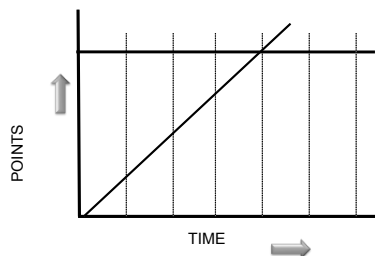
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## Raw Velocity

Estimated Velocity Per Pair X Steady State Pairs = Raw Velocity Per Iteration



Total Story Points / Raw Velocity Per Iteration = Rough Number of Iterations

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## How long?

- Use the story estimates and estimated velocity you developed a few minutes ago
- How many iterations will it take you to complete your creature?

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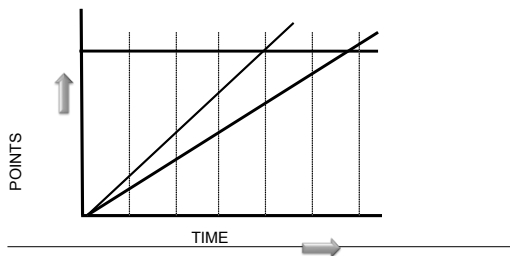
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## Velocity Adjustment - Risk

Calculate with lower end of the velocity estimate, or to account for risks



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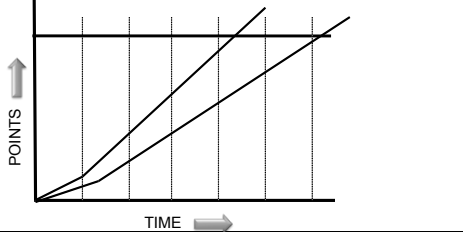
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## Velocity Adjustment – Ramp Up

Account for the team (as a steady-state whole) will take a couple of iterations to get up to full (estimated) velocity



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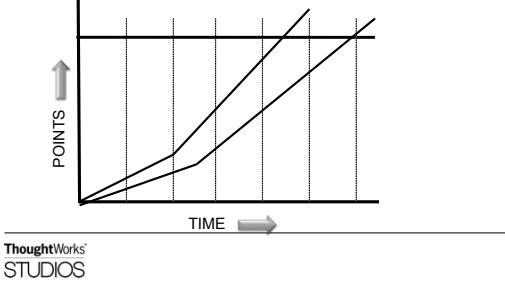
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## Velocity Adjustment – Onboarding

Depending on size of team, not all developers may start on the first day. May need to adjust further to match velocity to onboarding.



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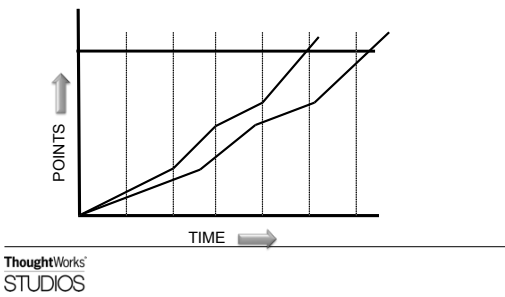
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## Velocity Adjustment – Time Off

Make adjustments for known vacations, holidays, business closings, special events



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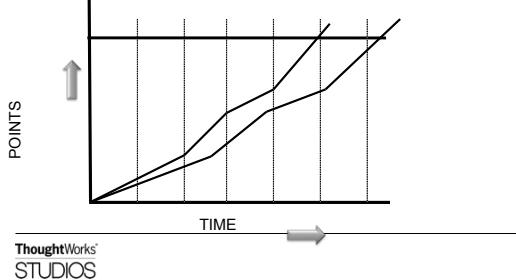
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## Development Duration Range

The intersection of the story point and velocity lines gives you your development duration range



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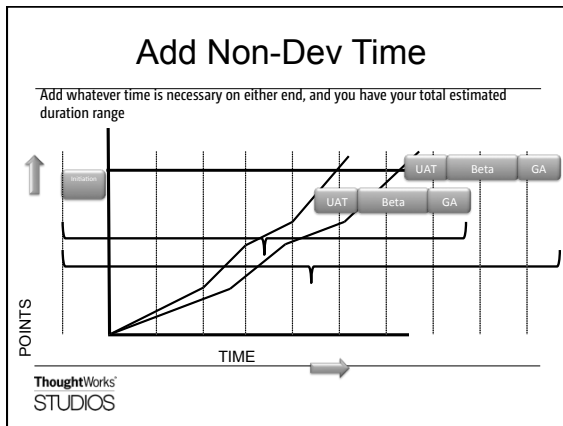
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Questions?

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