Better Planning Via Tasking as a Team

by Chris O'Connor
Biography

After working in the video game industry on four titles I learned what I did not want to do for the rest of my career. In order to counteract the chaotic development cycle, we typically worked 60-80hr weeks.

I was lucky to find my next position at a company that had just begun to embrace Extreme Programming. In the ten years since then I have sought out Agile teams and promoted Agile methodologies. I have also learned a lot about Agile and how and when to apply various techniques. Leveraging my Agile experience has helped me mentor other developers and teams ranging in size from 3 developers to 3 dozen or more. Currently I work for the University of Michigan Institute for Social Research as a solution architect, developer, and coach.
Survey Time

- How many people have heard of Agile?
- How many people work in an Agile environment?
- How many of the practices do you follow?
  - TDD
  - Stand up
  - Estimation
  - Planning
  - Open Collaborative Space
  - Pairing
- How do you plan?
- How do you estimate?
When I first began thinking about this tutorial I was really focused on the breaking down stories into tasks. What I realized as I put it together is while I was on the right track I wasn’t thinking big enough. Thus the narrow item I started with expanded into the journey we will embark on today.
Warm Up

- Work with partner to estimate the following:
  - # of University of Michigan undergraduates
  - Distance from Reno to A2
  - # of microbreweries in MI
  - Order the following shortest to tallest:
    - St Louis Arch
    - Statue of Liberty
    - Empire State Building
    - Eiffel Tower
    - Sphinx
    - Sydney Opera House
    - Burj Khalifa
Estimate Answers

- # of undergraduate student attending University of Michigan in 2009
  - Student body of 26,208 undergraduates and 15,466 graduate and professional students (2009)
- Driving distance from Reno to Ann Arbor
  - 2,142 mi / 3,447 km
- Breweries in MI
  - 58
Estimate Answers continued

- Shortest to Tallest
  - Sphinx - 66 feet/20m
  - Statue of Liberty - 151ft/46.50m
  - Sydney Opera House - 222ft/67.6m
  - St Louis Arch 630ft/192m
  - Eiffel Tower - 1,052 feet/320m
  - Empire State - 1,250ft/381m
  - Burj Khalifa - 2,625ft/800m
Why do we plan?

“Plans are nothing. Planning is everything,”
Dwight D. Eisenhower
Why do we plan?

• Reduce risk
• Forecasting
• Synchronization
• Organization
• Resource allocation
  • People
  • Funding
Why do we estimate?

"I’ll give you a perfect estimate every time. Give me perfect specs and when I’m done I’ll tell you how long it took."
Why do we estimate?

- To help us plan
- To help define scope
- To assist prioritize
- For metrics gathering
What an estimate isn't

- A commitment
- Negotiable
- Wrong
- Fact
Deeper dive

- Most estimates are 50% estimates
- 90% Estimates
- Contingency
- Single values are for facts
  - e.g. Distance to Ann Arbor = 2,142 mi
- Estimates are given as ranges
  - The release will be done in 8-12 weeks
What effects my estimates?

- Past Experience
  - with the story
  - with similar stories
- What is the estimate for?
  - product planning
  - release planning
  - iteration planning
- Who is the estimate for?
  - Customer
  - Product Owner
  - Project Manager
  - Upper Management
Leveraging the success of Amazon, Newegg, and similar online shopping sites
Specific to marine aquarium related items
Product owner wants features from the aforementioned sites and some tailored specifically to reef keeping.
Classic Estimation Exercise Part I

- Work with a partner
- Estimate the given stories
Questions

● How many stories were you able to estimate?
● Highest and lowest estimates?
  ○ What accounts for differences?
Classic Estimation Exercise Part II

- Come up with a plan for a preview release
- Your budget is half of your total number of estimated hours
- Things to think about:
  - Who is the likely audience?
  - What will constitute a successful plan in their eyes?
Questions

● How confident are you in your plan?
● What would make you feel more confident?
● What did you leave out?
Classic Estimation Exercise Part III

- Come up with a plan for first public release
- Use the given estimates
Litmus test for epics

- Vague definition of done
- Acceptance tests that have lots of interdependencies
- Clarifying discuss drags on
- Large estimates
Breaking Down Epics

- Consider trying the following
  - divide by the UI screens
  - divide up the UI by UI elements
  - removing cross cutting concerns like
    - security
    - logging
  - Eliminating elements
    - persistence
    - verification
    - error handling
  - Reduce criteria
    - speed
    - amount of data
Epic Examples

- Example of
  - By UI
  - By element
  - Simplifying
  - Eliminating
  - Etc...
Definition of Done

- Needs to be shared not just by developers but across entire team
- The clearer the definition the easier estimation will be the more accurate your plan will be.
- Leverage your requirements to build an acceptance test plan to use during estimation
- Evolve the definition as you go
Definition of Done Example

- System login
- username and password
Definition of Done Example

- Case sensitivity?
- Special Chars?
- Encryption?
- Expiration?
- Length?
- Reset?
Breakdown Exercise Part I

- Using the given feature descriptions provide a breakdown of high level steps you would take to produce the feature in question

  - Example:
    - A user would like to sell a used item
      - Add a used price to our reefazon item
      - Add a section to the item view for displaying used items
      - Add a list element to the section to display the items
      - Add/modify an object to/in the domain to hold the seller's information
      - On check out inform seller and update the account
Breakdown Exercise Part II

- Find a partner
- Walk through the steps you came up with
- Revise estimates
- Work together on breaking down steps for the next set of stories/features
Questions

- Was it easier or harder?
- How comfortable do you feel that you could:
  - Convey design to others...
    - Today?
    - Tomorrow?
    - Next week?
Estimation sessions that run too long

- Stories that are too big?
- Stories that are too vague?
- Wrong people?
- Wrong size of group?
Some Estimation Session Guidelines

● Small to medium size teams: Tend toward as many of the team as is available
● Involve a cross section of roles
  ○ Large teams ensure the subset follows this rule
  ○ Make sure to stay connected to rest of team
    ■ Invite a pair that's not working on the section being worked on
    ■ Rotate pairs through sections
● Avoid including people who will try and influence estimates that are not involved in the development.
  ○ Boss, Product Owner, Project Manager
Game Time: Tasking as a team

- Break up into teams of 3-5
- Work with your team to break down the stories into tasks
- Now provide estimates for the stories to follow
- Finally assemble a plan for your team for the iteration
- The team with the most realistic, comprehensive, and accurate plan wins!
As a user I want to be able to checkout purchasing items in my cart
As a user I want to be able to checkout purchasing items in my cart

SA clarification:
- Recovering lost session
- Updating cart contents
- Tax calculations
As a user I want to be able to filter by category
As a user I want to be able to filter by category

SA input:
- Be able to add/remove individual filters

QA
- What happens when conflicting filters are introduced
As a user I want to enter a coupon code
As a user I want to enter a coupon code

SA says:

- Inform user if code is invalid
- Inform user why it is invalid
- Suggest ways to remedy
  - Wrong item model?
    - Look at coupon requirements and suggest items that fit
  - Expired?
    - Sign up for new coupon codes
As an employee I want to create a coupon
As an employee I want to create a coupon

SA:
- Coupon expiration rules
  - Date
  - # of uses
  - After certain amount of budget has been used
- Must provide verification
  - Don't want coupon abuse

QA:
- What happens when coupon requirements are
  - In the past
  - How will we input requirements?
  - What will we do if requirements become invalid?
    - We stop carry item or run out of stock?
As a user I want my search to find near misses
As a user I want my search to find near misses

SA:
- Should find Clownfesh and Clown Fish

QA:
- Need to be able to print out list of the search index to verify
- Should be able to get past versions of list to compare
As a user I want my search to make suggestions
As a user I want my search to make suggestions

SA:
- Should suggest Clownfish from Clown Fish
- Should suggest near species match sebulae (a species) should also find ocellaris (another species)

QA:
- Need to be able to print out web of relationships to verify
- Should be able to get past version of web to compare
As a user I want to be able to add an item to my cart
As a user I want to be able to view items by category
As an employee I want to be able to list a new item
As a user I want to be able to return an item I don't want
As a user I want to be able to return an item I don't want

SA clarifies:
Take aways

● Was it easier or harder?
● How comfortable do you feel that you could:
  ○ Convey design to others...
    ■ Today?
    ■ Tomorrow?
    ■ Next week?
● How do you feel about the accuracy of your
  ○ estimates?
  ○ plan?
Summary

- Estimates are just estimates
- My conscious decision on which approach will give you the best information to form your plan
- Drive for a clear definition of done
Questions / Feedback
Contact Info

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Thank you and enjoy the rest of SPLASH 2010!!!