Agile UX Research Practices Applied

AGILE ALLIANCE 2012 CONFERENCE

MIKI KONNO, AUGUST 15TH 2012

Introduction

- ## Miki Konno – Sr. UX Researcher @ Microsoft
  - User Experience Researcher/ Human Factors Engineer for last 15 yrs
  - Worked @ Honda, Sony, Symantec, Jacob Nielsen-Don Norman Group (NNG), & HP
  - Worked @ Microsoft – Windows, MSN , Visual Studio (TFS), and Bing Platform division (Mobile/ Maps/ Speech/ Dev portal)

- ## UX Research Specialized Areas
  - Web, Search, Mobile, Maps, TV/Video,, HW/SW Interaction, International Research, NUI (touch, speech, gestural), & Developer tools (ALM, Agile PM/ RM tools)
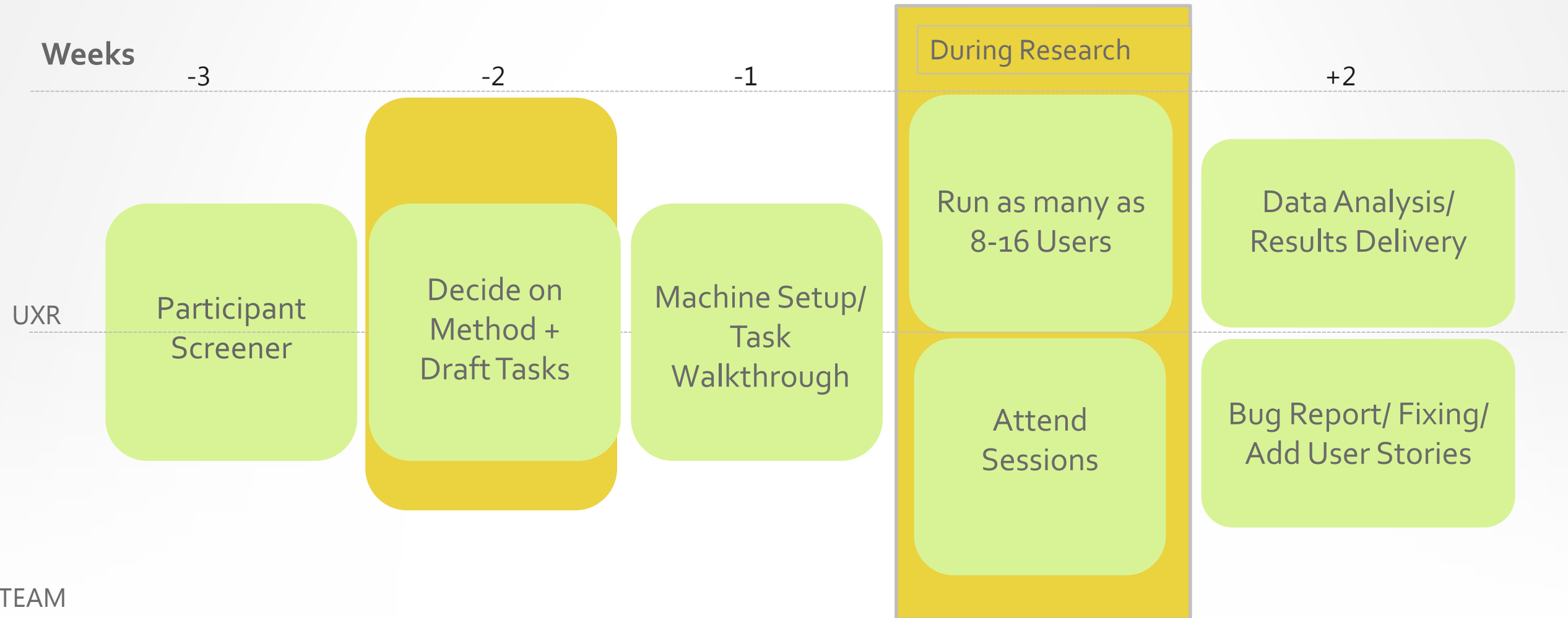
- ## Education Background
  - Advanced degrees in Human Factors Engineering/ Applied Experimental Psychology and Industrial/ Organizational Psychology
  - Certified Scrum Product Owner

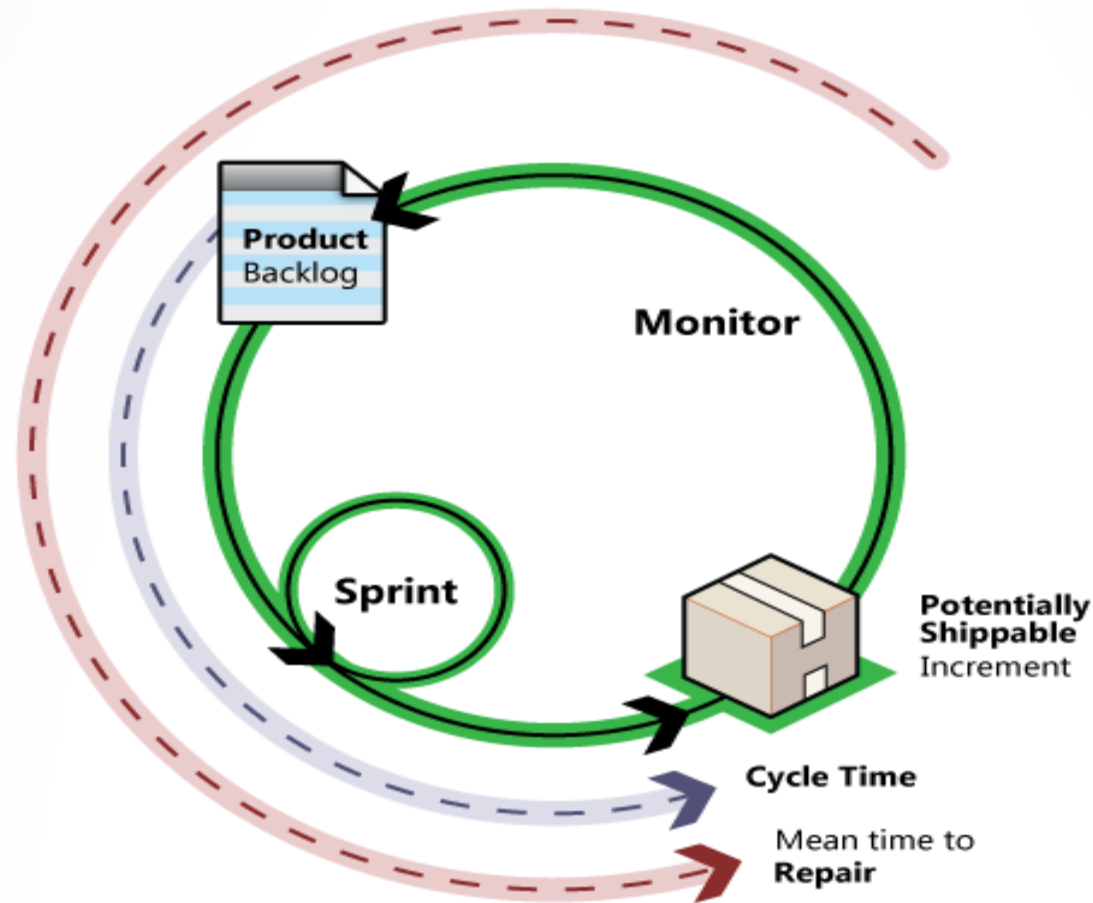# Typical UX Research Data Acquiring Cycle

UX Challenges for Agile Teams

- *"We want to get user feedback **BEFORE** coding starts"*

- *"We want to get user feedback on this sprint release **NOW**"*

- *"A usability data analysis takes too long…we want the data **FAST**"*

- *"There is **NO TIME** to test every user stories"*

The UX Research Cycle needs to be faster!

What have we done in the Agile Environment? – Microsoft TFS & Bing Teams Case Studies

✓ RITE Study
✓ Online Customer Panel
✓ Quick Pulse Study
✓ Team Involvement with Personas

Agile UX Research Processes

1. RITE: Rapid Iterative Testing & Evaluation

- Continuous design iterations in one day

- Design elements/ UI design exploration

- Design improvements in small increments

Rapid
Iterative
Testing
Evaluation
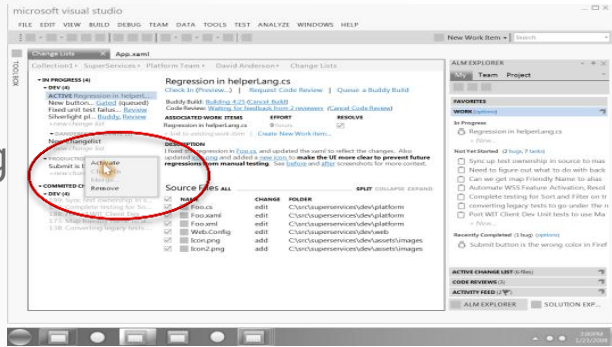
RITE: Rapid Iterative Testing & Evaluation

- ## RITE Study Protocol

  - Continuous design iteration

  - Requires a dedicated UX researcher to facilitate, and Designer (or developer) to iterate the design

  - Changes to the interface are made as soon as an issue is identified and a solution is clear

  - Then the changed interface is tested with the next user

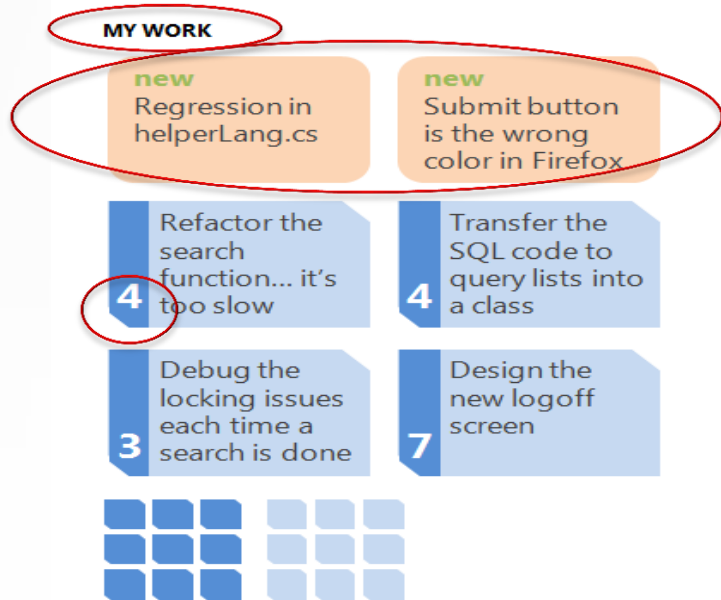 - You could be done in one day, o spread out to a few days

| 9am session w/ Design v0.1 | 11am session w/ v0.2 | 1pm session w/v0.3 | 3pm session w/v0.4 | 5pm session w/v0.5 | Final iteration → | Final Design |

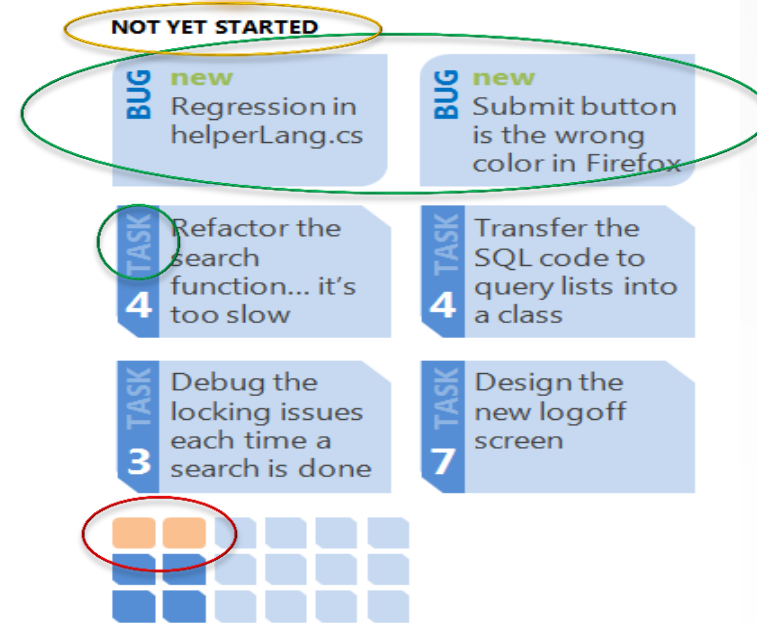# RITE Examples (TFS)

TE/Task Switching

V0.1
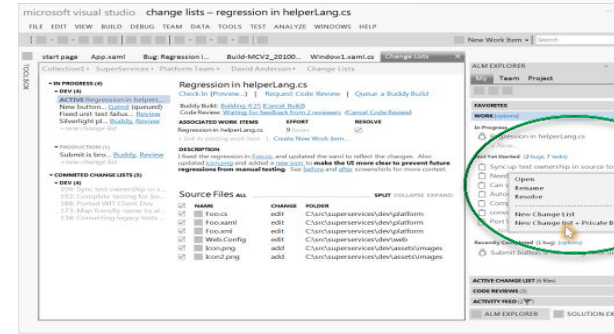
TE/Task Switching

V0.2

Task Board

V0.1

Task Board

V0.2

RITE Study Pros & Cons

- Pros
  - Agile
    - You can complete the study in short time
  - Collaborative
    - The team (UX researcher, PM, Designer, or Developer) needs to come to an agreement on each design revision
  - Visual
    - Design Improvements are instantly visible
  - Cost less
    - It can be done by one designer (or developers) in one day

- Cons
  - Technical feasibility
    - Some features may not be technically feasible to change quickly
  - Feature limitations
    - Not all features can be included in the prototype
  - Quality and performance
    - Hi-fidelity prototypes could have faster performance and better quality, so it could be misleading

Agile UX Research Processes

2. Online Customer Panel

- Online feedback panel with target users
- Product Owners run Bi-weekly panels
- Same panel members can see the product improvement over time

Online Customer Panel

- What is the online customer panel?
  - A group of pre-screened participants who have expressed a willingness to participate in customer feedback sessions online

- 5-6 customers are recruited to participate in online panels
  - Make sure that they are the target users
  - Make sure that they are able to commit to the length of time needed
  - Make sure to recruit the right type of participants

- Product Owner to run the online panels
  - One hour of the participants time is needed every other week
  - Can use any types of materials (e.g., wireframe, interactive prototype, or sprint demos)
  - Get customer feedback on attitudes and opinions

- Results are available instantly

- Feedback can be recorded with customer consent (NDA ready)
  - Through Skype, Lync, Live Meeting, OneNote, Adobe Connect, WebEx etc.

Online Customer Panel Pros & Cons

- Pros
  - Short preparation time
  - Present virtually anything to customers
  - Cost less
  - Use customers from anywhere
  - Customers become comfortable over time
  - Don't need a UX researcher to run the panel (opinion based, not observational based)

- Cons
  - Hard to find the customers who can commit the time
  - Hard to manage 5-6 people talks at the same time
  - Hard to manage opinionated persons in the group
  - Learning effect of customers
  - Difficult to test discoverability, navigation, information architecture

Agile UX Research Processes

3. Quick Pulse Study

- Continuous user feedback with sprint cadence
- One week from start to finish
- Meet team's urgent needs/ tweaks quickly
- Work well with user stories / features
- Flexible to test anything (i.e., mockups, builds)
- Minimal advanced planning
- Immediate product impact
- Personas for recruiting
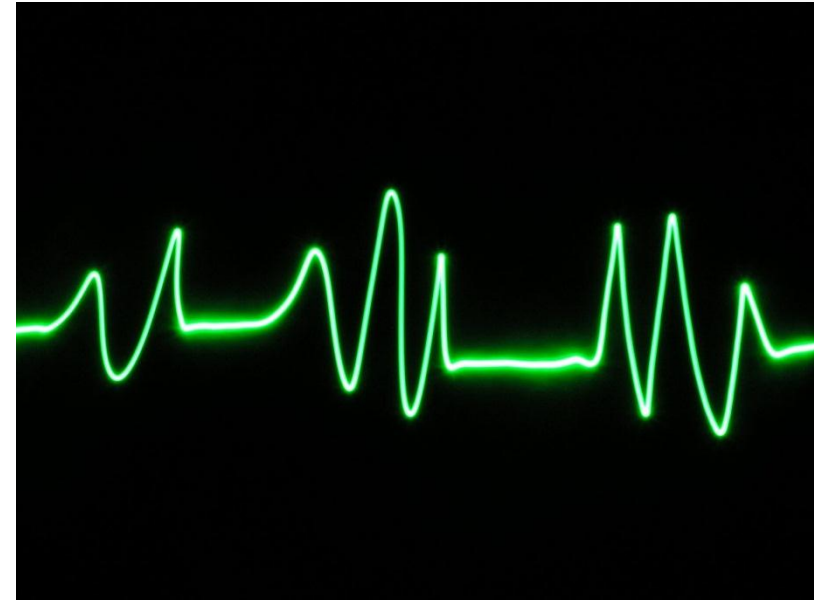
Quick Pulse Study Process Summary

- Recruit 3 users weekly to come into the usability lab every Thursday
- One hour for each participant
  - 9-10, 10-11, 11-12pm: 3 sessions in the morning
  - If we need to test more than one area, we'll add 3 more on Friday
  - Use the same usability lab (or conference room) every week
- Quick summary of findings sent out to the team by Monday
- Work well with sprint planning mockups and sprint builds
- Alternate between different personas (target users)
- Email results sent out to a larger audience including management
- Complements with the full-scale research (strategic, long-term)
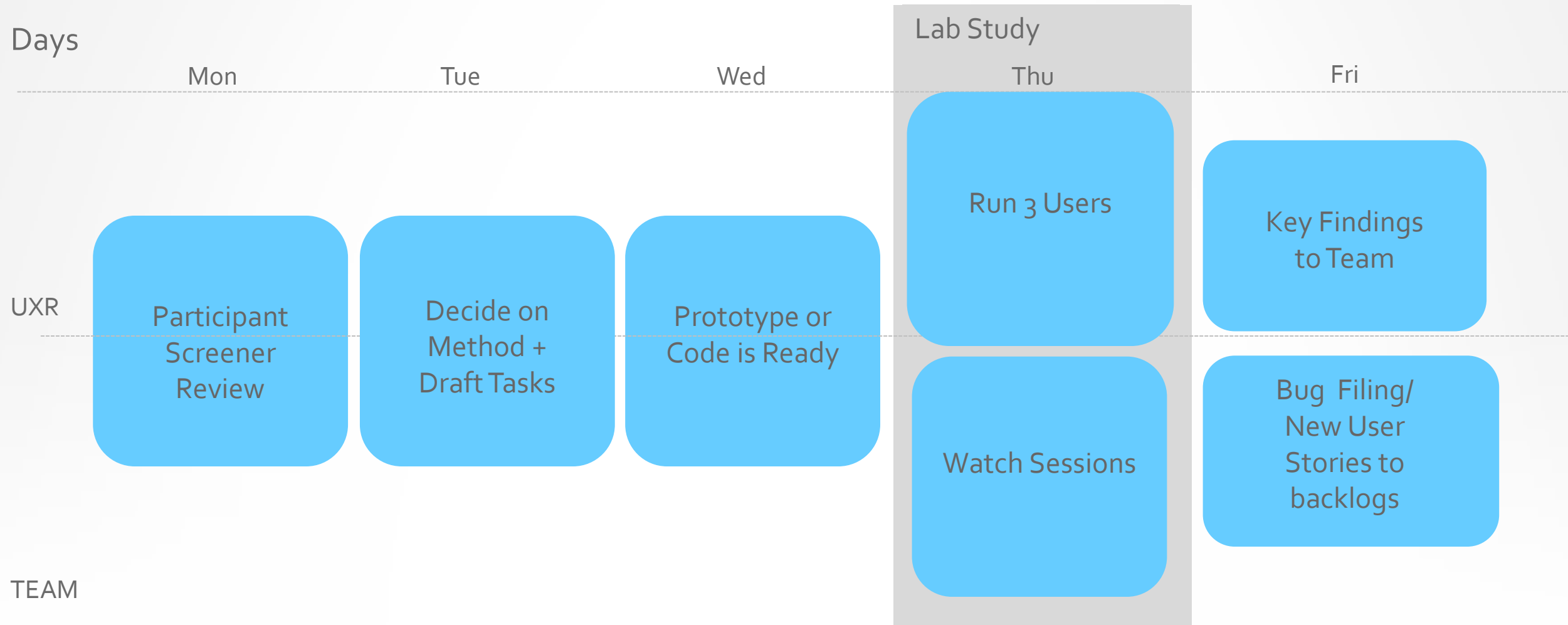
QPS uses only 3 users? WHY??

- User research studies often run by a behavioral scientist professional – most URs hold MSs or/and Ph.Ds in Psychology

- The best result comes from testing no more than 5 users and by running as many small tests as you can afford

- The most striking truth is that **zero user gives zero insights**

Usability guru, Jacob Nielsen's famous quote: "80% of usability issues can be found by no more than 5 users"

*Reference from useit.com, Jacob Nielsen's Alert Box, March 19, 2000

$$N(1-(1-L)^n)$$

where *N* is the total number of usability problems in the design and *L* is the proportion of usability problems discovered while testing a single user. The typical value of *L* is 31%, averaged across a large number of projects we studied. Plotting the curve for *L*=31% gives the following result:
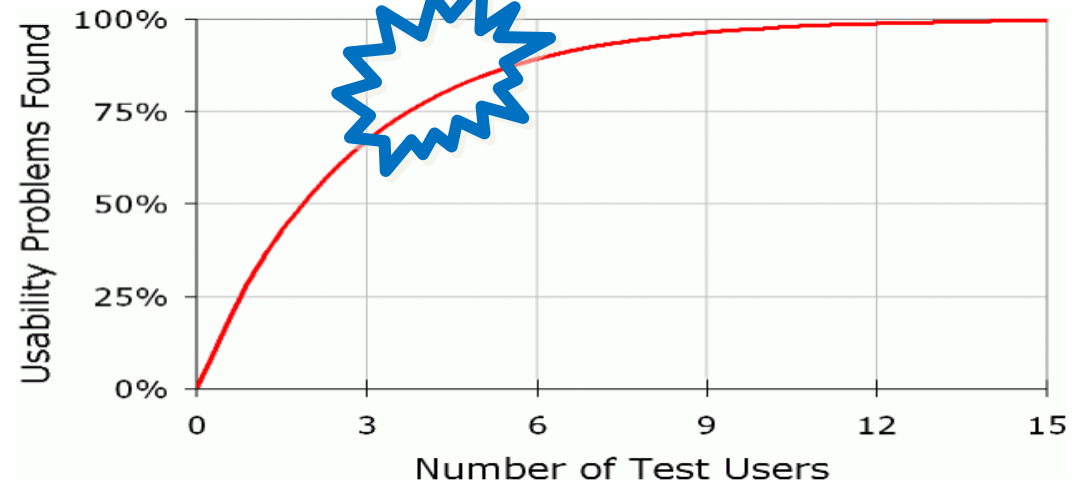
Quick Pulse Study Step 1 – FY Planning

			Quick Pulse Study (Every Friday 3 ppt)				
	UK Map Study	Map Longitudinal Research				Decision Point Architecture	
RIM Map	Map Competitive Benchmark	Mobile Competitive Benchmark	Information Platform Dev Research		RIM/iPhone Research		
Extended Maps: Night Maps/POI/ Transit Info				Mobile Ethno Research		Speech on Mobile	Open Source Developer Research
November	**December**	**January 2012**	**February**	**March**	**April**	**May**	**June**

Legend:
- Map Shell
- Extended Map
- Mobile Shell
- Extended Mobile (RIM. iPhone)
- International Research
- Quick Pulse Study
- Speech
- Information Platform

- Plan for feature areas, budget, timing, resources, and lab allocations
- Assess other full research requirements at the time of planning stage
- Align with other strategic research: competitive benchmark, longitudinal research, ethnographic research, international research, concept testing through focus groups, etc.

Quick Pulse Study Step 2 – Preparation

Traditional Usability lab Or Living Room lab

Observation Room

Sprint Planning Mockups by designer
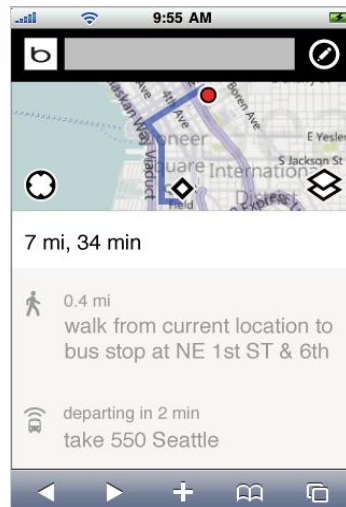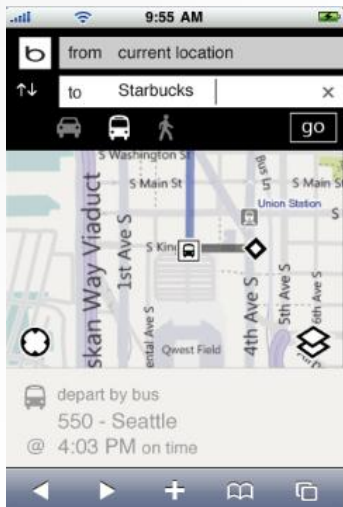
Sprint Demos by scrum master/ product manager
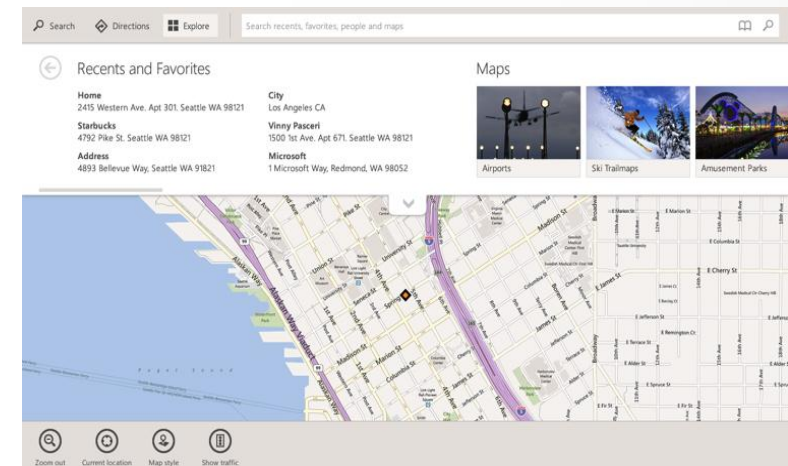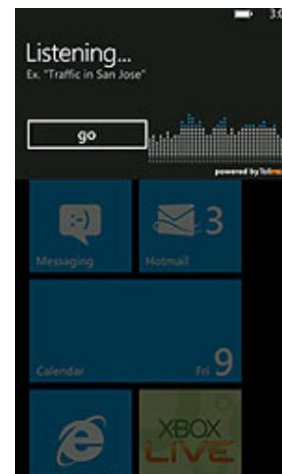
Quick Pulse Study Step 3 – Execute!

Quick Pulse Study Step 4 – Communication

Quick Pulse Study Step 4 – Communication

Eye Tracking Study

Exploratory Search Exercise

Quick Pulse Study Step 4 – Communication

A brief Presentation to immediate team

Quick Summary Findings by email

Quick Pulse Study Application

✓ Works well with…

- Sprint-specific work
- Smaller/ Simpler features
- Sprint demos
- Quick UI fixes w/wireframes
- Simple UI navigations
- Simple scenarios
- Paper prototypes
- Product Concept mockup

X Doesn't work well with…

- Method requires large N sample
  - Card Sort study
  - Benchmark studies
  - Competitive Analysis
  - Surveys
- Method requires strategic insights
  - Long-term/ E2E scenarios
  - Complex Systems / navigations
  - International Studies

FAQ: Quick Pulse Study

- What if….we don't have a UX Researcher?
  - ✓ Scrum Product Owner could run it, if not hire a UX researcher

- What if….we don't have a usability lab?
  - ✓ You can use online- meetings, conference rooms, at the coffee shops, at the conferences

FAQ: Quick Pulse Study

- **What if….we don't have enough budget to recruit ever week?**
  - ✓ You can ask volunteer customers through company website, social media

- **What if….we don't believe usability study data?**
  - ✓ I'll personally come to your company and educate your team ☺

Q&A: Quick Pulse Study

- Any more questions on Quick Pulse Study?

Agile UX Research Processes

4. Team Involvements with Personas

- **Persona Creation**
- **Field Site Visits** – take team members to visit real users in their real environments
- **Persona Happy hour** - Bring the real users (persona profiles) in on Friday afternoon
  - A great way to get to know the target users in an informal setting with snacks & drinks
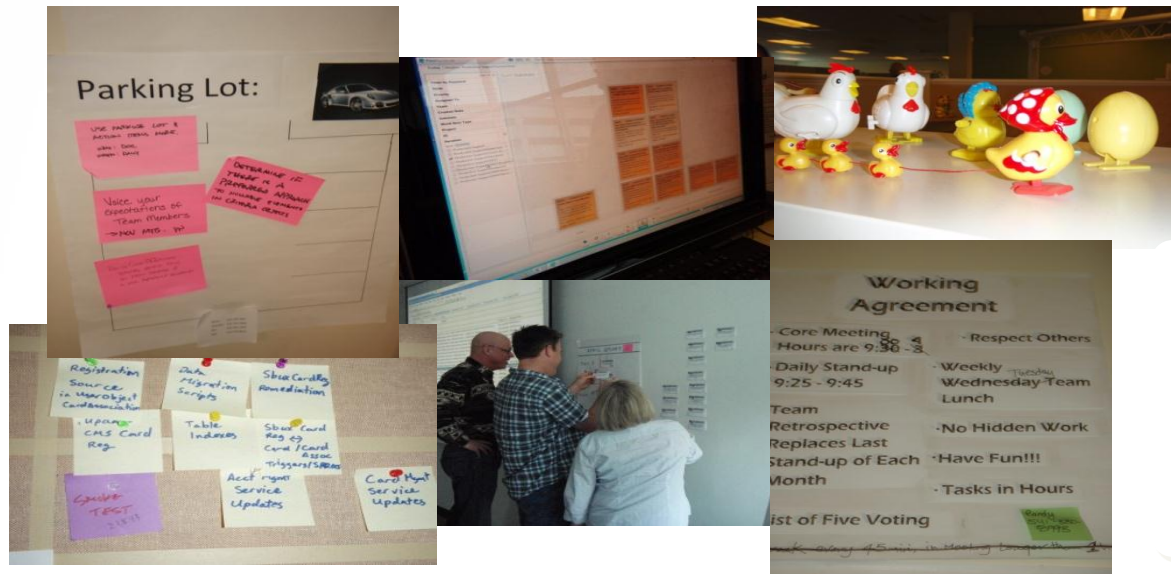
Persona Creation

- ## What is persona?
  - Personas are concrete representations based on the *real data*
  - Personas are not every possible customer
  - Different from customer segmentations from marketing

- ## What are the benefits?
  - Bring focus
  - Build empathy
  - Encourage consensus
  - Help prioritize features
  - Lead to better customer-focused decisions
  - Focus on important customer-focused scenarios

"My goal is to meet the sprint goals. A good day is when there are no team impediments."

"My goal is to effectively manage backlogs. A good day is when my user story becomes a shippable feature."

Persona – Segmentation Mapping

- **Market data** = knowing why and **how someone buys** products or services, affects market positioning

- **Behavioral data** = knowing **how someone uses** the products or services, affects design and feature decisions

understanding user behavior

understanding market

persona model

segmentation model

product

positioning

planning and design

prioritization and communication
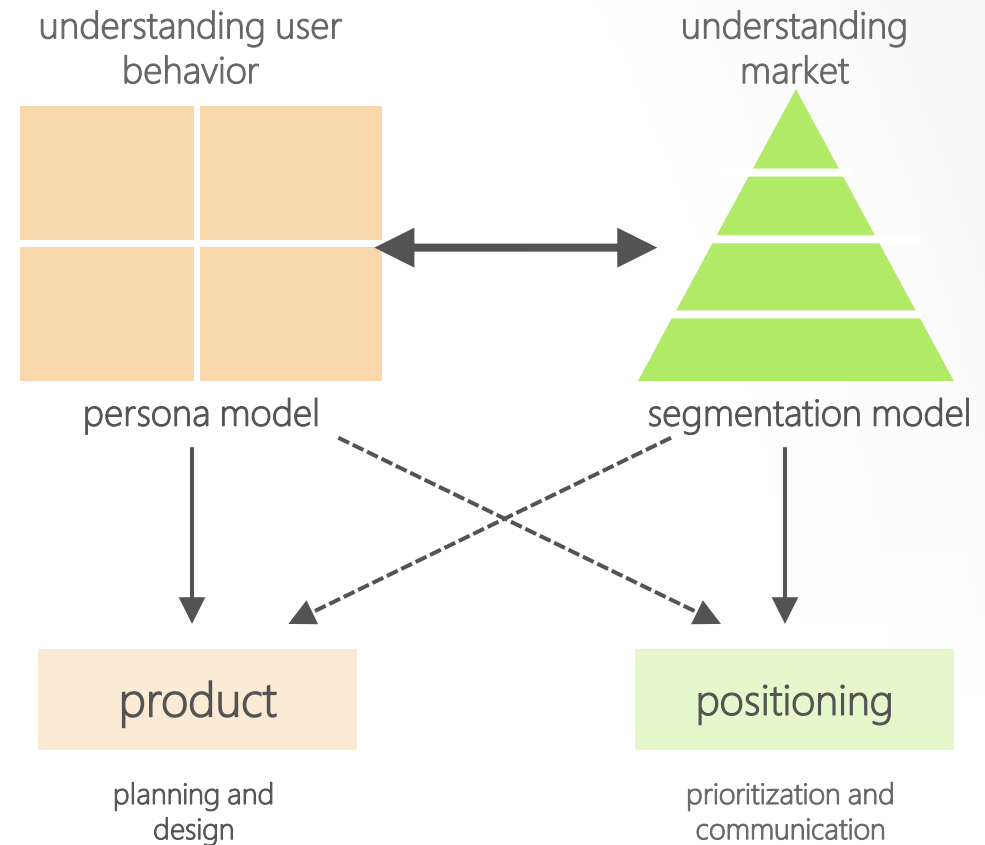
PETER   AGILE SCRUM MASTER

WORK STYLE

» collaborative
» good negotiator
» domain-expert
» great listener
» excellent facilitator
» politically not savvy
» gets excited about technology

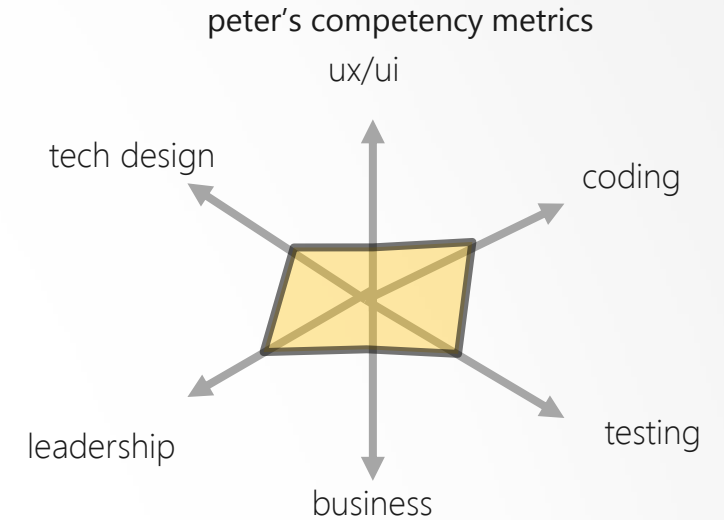peter's competency metrics

ux/ui

tech design

coding

leadership

testing

business

PEOPLE

multifunctional roles (e.g., SM/Dev, SM/QA)

most have technical degrees (BS in CS)

most have CSM (certified scrum masters)

some evolved from developers or PMs

motivated by team productivity, shipping

customer-centric features

ACTIVITIES

run daily stand ups

remove team's blocking issues

manage team's velocity/ burndown

negotiate user stories with product owners

monitor sprint goals, run sprint review

coding/ testing

PAIN POINTS

unable to resolve team's impediments

time management between SM & dev

work rejected by product owners

not get recognized being Scrum Master

making time for mentoring junior devs

process interrupted by mgrs

ANGIE AGILE PRODUCT OWNER

angie's competency metrics

WORK STYLE

» excellent negotiator
» collaborative
» detailed oriented
» great listener
» excellent facilitator
» understand customer values
» extremely organized
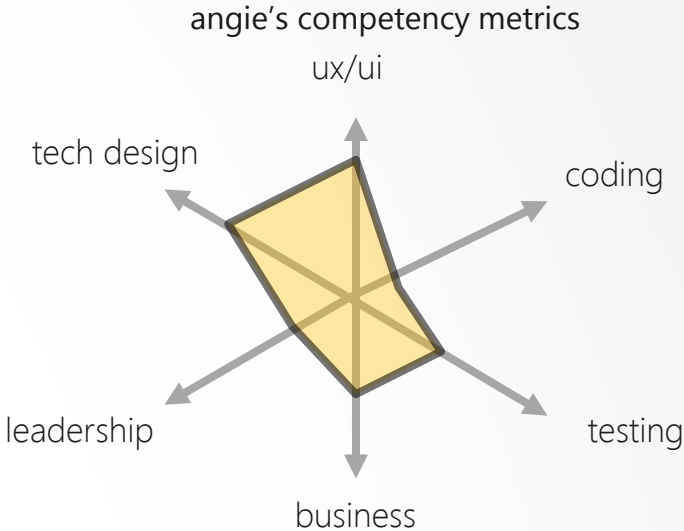
PEOPLE

focused but hybrid role with Dev, UX, or BA

variety of degrees (CS, UX, or BA)

some used to be a business analyst

some have PO training such as CSPO

motivated by seeing features from her user

stories, seeing backlog items reducing

ACTIVITIES

manage product and sprint backlogs

collect biz, functional, tech customer reqs

create user scenarios & storyboards

lead sprint planning/play planning poker

define & clarify user story with the dev team

set an acceptance criteria

PAIN POINTS

manage backlogs with multiple tools

not able to clarify user stories to the team

not able to validate user stories with cus

not able to estimate the user stories correctly

req artifacts are not linked well together

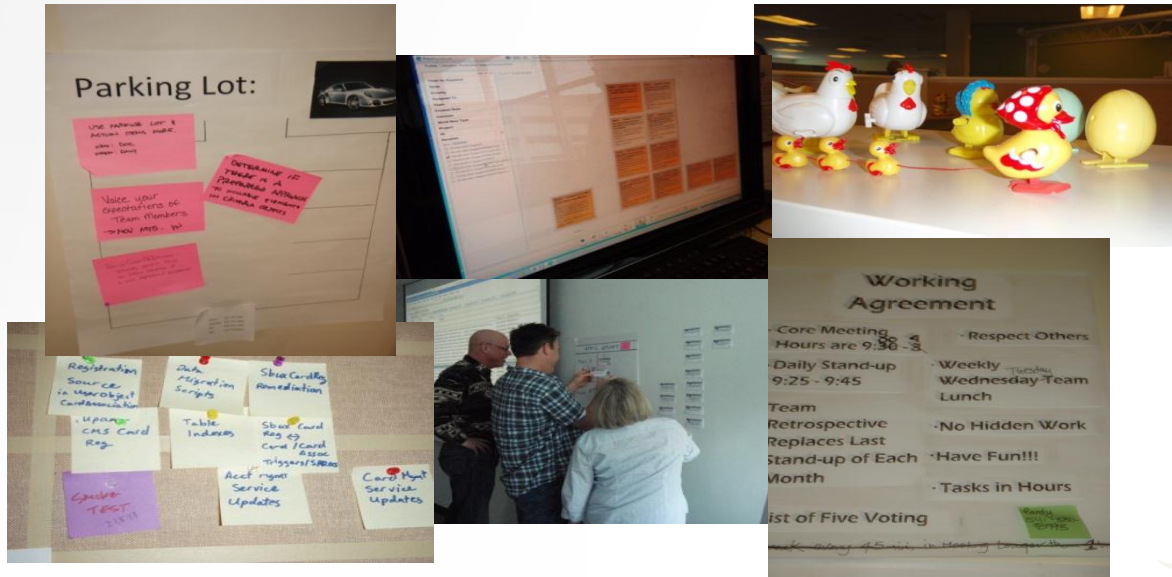not able to transition well from previous roles

Team Personas Creation
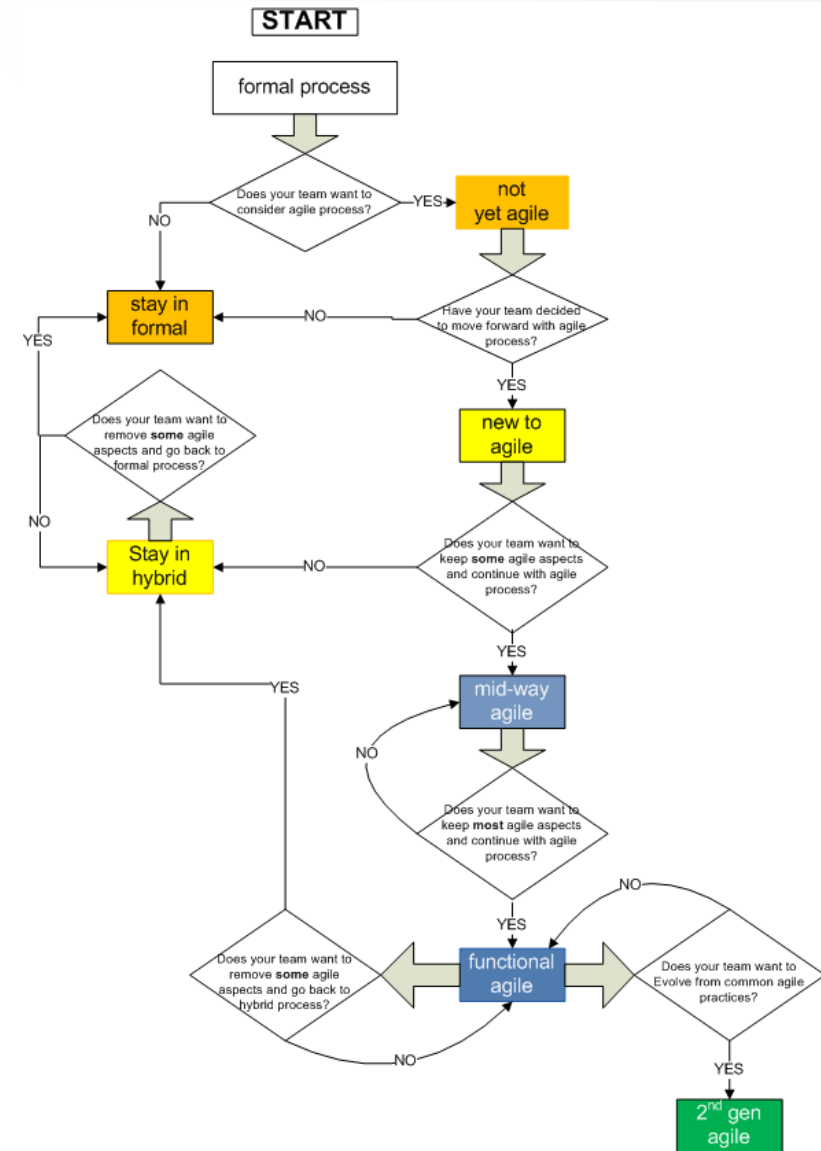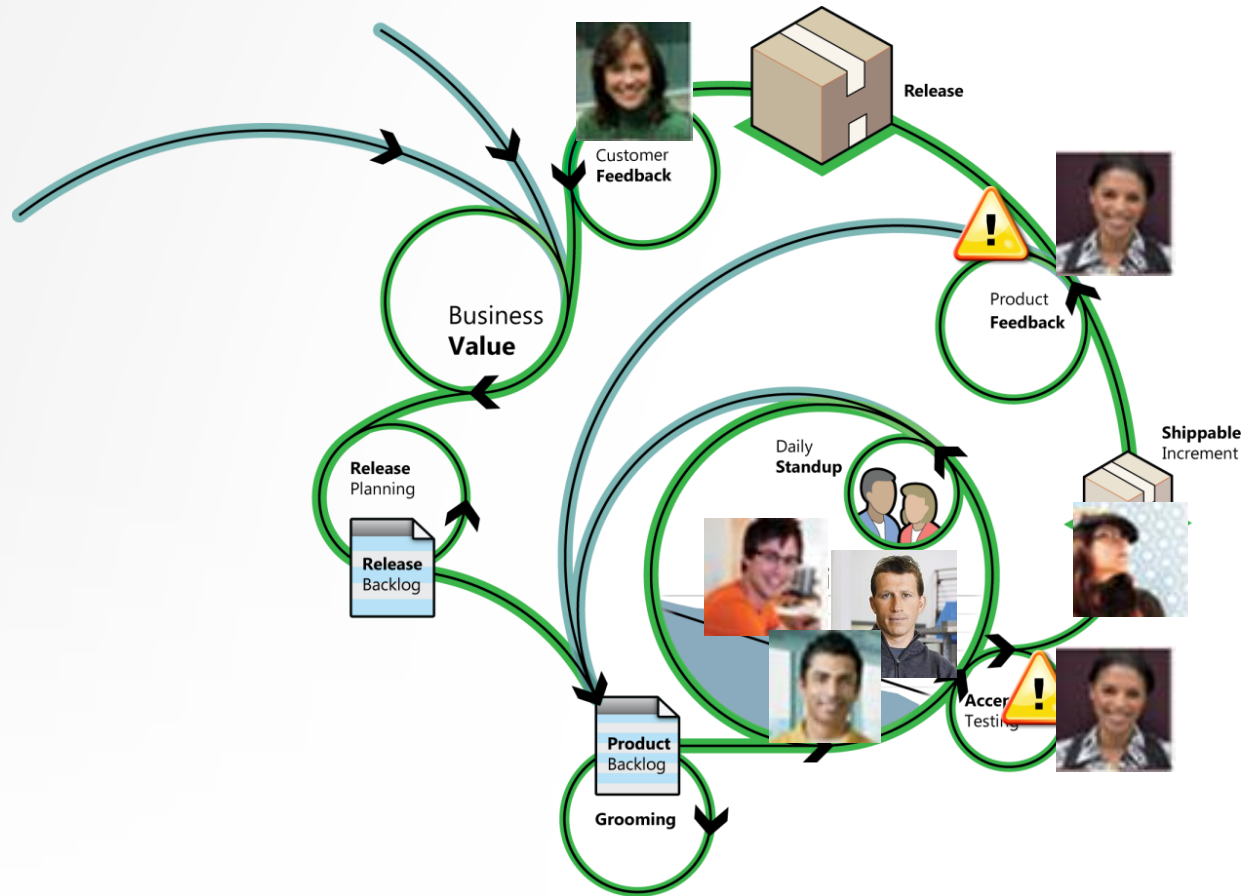
Field Site Visits

- **Field Site Visits**
  - Take team members to visit real target users (personas) in their real environments

Collection of evidences from site visits

Affinity Diagrams to organize the insights

Persona Happy Hour

- **Persona Happy hour -** Bring the real users (personas) in for Friday afternoon
  - A great way to get to know the target users in an informal setting with snacks & drinks

Q&A

Please contact mkonno@microsoft.com for any further questions