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
Full UX Research Lab Study Timeline

Weeks
-3
-2
-1
+2

UXR
Participant Screener
Decide on Method + Draft Tasks
Machine Setup/Task Walkthrough

During Research
Run as many as 8-16 Users
Attend Sessions

Data Analysis/Results Delivery
Bug Report/Fixing/Add User Stories
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
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**, or 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

Task Board
v0.1

TE/Task Switching
v0.2

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
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
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)
Quick Pulse Lab Study Schedule

Days

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant Screener Review</td>
<td>Decide on Method + Draft Tasks</td>
<td>Prototype or Code is Ready</td>
<td>Run 3 Users</td>
<td>Key Findings to Team</td>
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<td>Watch Sessions</td>
<td>Bug Filing/ New User Stories to backlogs</td>
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UXR

TEAM
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*
Quick Pulse Study Step 1 – FY Planning

- 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
- Observation Room
- Observation Room

- Or Living Room lab

- Sprint Planning Mockups by designer
- Sprint Demos by scrum master/ product manager
Quick Pulse Study Step 3 – Execute!
Quick Pulse Study Step 4 – Communication

User Performance Results: Task Success

- Overall task success rate was 83%.
- There were a few errors even for successful tasks (tasks 2, 5, & 6) but most users figured things out within five minutes.

<table>
<thead>
<tr>
<th>Task</th>
<th>Error</th>
<th>Complete</th>
<th>Success Rate</th>
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<tbody>
<tr>
<td>Task 1</td>
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Task 3: Create Labels – Shape Selection

- All users picked the Tide for the first label “Body, Welcome…”
- It has a bigger font and it seemed to be the obvious choice for them.
- They all selected the Tide, but since they used it, they returned to it for the rest of the tasks.
- All users wanted to be able to see the details of the shapes more easily.
- Some users thought there were redundant shapes.
- What is the difference between “Track” and “Subplot”? Since we’re changing the text anyway, why do we need different names?
- Most users thought that the tooltip didn’t help determine which shape to use.

User Perception Results: SUS Score

- The System Usability Scale (SUS) measures the utility of the system.
Quick Pulse Study Step 4 – Communication

Exploratory Search Exercise

Eye Tracking Study
Quick Pulse Study Step 4 – Communication

Weekly Ads: Key Takeaways

- **Shopping Splash Page A/B Comparison**
  - The reactions to whether the shopping splash page should have just the logos or logos and thumbnails of the weekly ads were mixed: Thumbnails were clearer what it represented, logos made for a cleaner look. However, with the logos only there seemed to be some confusion if the categories below were part of the weekly ads.
  - Additionally, there was some commenting on the Daily Deals banner: it wasn’t flashy, people could guess what it was but it wasn’t abundantly clear, there aren’t as many images as there were in the other sections. This combined with the small headers for “Daily Deal,” “Weekly Ad,” and “Categories” made it a little unclear what was what. Having a banner with appropriate imagery for daily deals and using the weekly ad thumbnails would make it much clearer that these are their own category.
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

✗ 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?
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**
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
# PETER AGILE SCRUM MASTER

## 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

## Work Style

- Collaborative
- Good negotiator
- Domain-expert
- Great listener
- Excellent facilitator
- Politically not savvy
- Gets excited about technology

## 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

## Peter's Competency Metrics

- UX/UI
- Coding
- Tech design
- Leadership
- Business
- Testing
<table>
<thead>
<tr>
<th>PEOPLE</th>
<th>ACTIVITIES</th>
<th>PAIN POINTS</th>
</tr>
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<tbody>
<tr>
<td>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</td>
<td>manage product and sprint backlogs collect biz, functional, tech customer reqs create user scenarios &amp; storyboards lead sprint planning/play planning poker define &amp; clarify user story with the dev team set an acceptance criteria</td>
<td>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</td>
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</tbody>
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**WORK STYLE**

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

**angie’s competency metrics**

- UX/UI
- Tech design
- Coding
- Leadership
- Business
- Testing
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