Agile UX Research Practices Applied

Miki Konno
Sr. User Experience Researcher
Microsoft Corporation
Introduction

• Miki Konno – Sr. UX Researcher/ Human Factors Engineer

  – UX Experience
    – Honda, Sony, Symantec, Jacob Nielsen/ Don Norman Group (NNG), Hewlett Packard Company
    – Windows Media Center, IPTV (Mediaroom), MSN Video, Local/ Entrainment, Visual Studio (TFS) at Microsoft

  – Education Background
    • Human Factors/ Applied Experimental Psychology (Consumer Product evaluation, Ergonomics, Statistics)
    • Industrial/ Organizational Psychology (Psychometrics, Human Performance, Organizational Behavior, M&A, Org Behavior/ Culture)

  – Expertise Areas
    • Ergonomics, HCI, HW/SW Interaction, consumer product evaluation, multi-media (TV/Video/Entertainment), international usability, complex software systems, enterprise software, Agile tools
Typical UX Research
Data Acquiring Cycle
Full UX Research Process

✓ Full-Research
  – Site Visits
  – Persona Research
  – Ethnographic study
  – Large N quant survey
  – International study
  – Competitive benchmark
Common UX Research Lab Study Cycle
– works better for E2E scenarios, Benchmark, Intl research

<table>
<thead>
<tr>
<th>Weeks</th>
<th>UXR</th>
<th>During Research</th>
<th>TEAM</th>
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<tr>
<td>-3</td>
<td>Participant Screener</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-2</td>
<td>Decide on Method + Draft Tasks</td>
<td>Run as many as 16 Users</td>
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<tr>
<td>-1</td>
<td>Machine Setup/ Task Walkthrough</td>
<td>Attend Sessions</td>
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<td>+2</td>
<td></td>
<td>Data Analysis/ Results Delivery</td>
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<td>Bug Report/Fixing/ Add User Stories</td>
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Current Challenges for UX Data Acquiring Cycle in the Agile Environment

1. “We want to get user feedback \textit{BEFORE} coding starts”
2. “We want to get user feedback on this sprint release \textit{NOW}”
3. “There is \textit{NO TIME} to test every user story”
4. “A usability study takes too long...we want the results \textit{FAST}”
The UX Research Cycle needs to be faster!
What have we done in the Agile Environment? – TFS Team Case Studies

- RITE Study
- Quick Pulse Study
- Persona Happy Hours
Agile UX Research Processes Used in TFS

1. Rapid Iterative Testing & Evaluation
   – Continuous design iterations in one day
   – Design elements/ UI Navigation exploration
   – Design improvements in small increments
RITE Study: Rapid Iterative Testing Evaluation

• RITE Study
  – The study can be accomplished in **ONE DAY**
  – Requires a dedicated UX researcher to facilitate, and Designer (or developer) to iterate the design
  – RITE Study Steps
    » 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
RITE Study Pros

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

• 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
    – Prototype could have faster performance and better quality, so it could be misleading
2. Quick Pulse Study

- Continuous user feedback with 3-week sprint
- Storyboard testing
- Sprint release testing
Quick Pulse Study

• Recruit 3 users weekly to come into the lab every Friday
• One hour for each participant
  • 9-10, 10-11, 11-12pm: 3 sessions on Fridays
  • If we need to test more than one area, we’ll test 6 participants on Friday
  • Use the same lab every week
• 3 personas (target users) to alternate
  • Peter – Dev Lead/ Scrum Master
  • Angie – Agile Product Owner
  • Elvis – Agile Developer
• Quick summary of findings sent out to the team by Monday or the results presentation with team the following week
• Email results sent out to larger audience including management
• We implemented the QPS for every other month
Quick Pulse Lab Study
- works better for smaller features + user stories in Sprints

**Days**

<table>
<thead>
<tr>
<th>Mon</th>
<th>Tue/Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Following Mon</th>
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<tbody>
<tr>
<td>UXR</td>
<td>Participant</td>
<td>Decide on Method + Draft</td>
<td>Lab Study</td>
<td>Results Delivery to Team</td>
</tr>
<tr>
<td>Screen</td>
<td></td>
<td>Tasks</td>
<td>Run 3 Users</td>
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<td></td>
<td></td>
<td>Prototype or Code is</td>
<td>Attend Sessions</td>
<td>Bug Report/ Fixing/ Add User Stories</td>
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<td></td>
<td></td>
<td>Ready</td>
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**TEAM**
Quick Pulse Study Phase 1: Planning

- Plan for feature areas, budget, timing, resources, and lab allocations
Quick Pulse Study Phase 2: Preparation

- Usability lab
- Observation Room
- Hosted TFS Testing Demo by Mario
- Sprint Planning Storyboards by Gregg
Quick Pulse Study Phase 3: Execution
Quick Pulse Study Phase 4: Communication

User Perception Results: SUS Score

User Performance Results: Task Success

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

Task3: Create Labels – Shape Selection

- All users picked the Title for the first label "Bob, Welcome to..."
- It has a bigger font and it seemed to be obvious choice for them
- A few picked Label, but once they used it, they returned to Title for the rest of the tasks
- All users wanted to be able to see the data in the shapes more easily
- Some users thought there were redundant shapes
- "What’s the difference between Title and Subtitle? Since we’re changing the text anyway, why do you need the differentiate?"
- Most users thought that the tooltip didn’t help determine which shape to use
Quick Pulse Study Applied: Bing Core Search Team

- One target user type (Information Seekers)
- They recruit 3 users to come into the lab every Thursday
- Quick summary of findings is available to the team by Friday
- They use dedicated contractor to run Quick Pulse Studies
- The research focus area is much more specific
- The focus is core search behavior
- The setup is shorter/simpler
- No formal results presentation, informal debriefing only
- A quarter newsletter with summary of all findings sent to entire product team
Quick Pulse Study Applied: Bing Core Search Team

Free-formal Search Exercise

Eye Tracking Study
Quick Pulse Study Applied: Bing Core Search Team

Quick Pulse Findings
January 2015-2015

Conducted by Brenda Sappapoyaka

Bing Shopping, Auto-suggest Facets
PM: Corinne Casper
Design: Sufia Bokhari

What we did
We had 53 participants in the lab interacting with a prototype version of Bing Shopping, which had the proposed design's functionality. Participants ran out of queries using the prototype. The objective was to find if participants would discover the feature, use it successfully, and if they liked it.

The prototype (for the digital camera query) is:
http://buzzworthy.shopping?fmt=xml&query=iphone

Summary
Discovery and initial use is likely to be an issue with this feature. However, once they discover and interact with it successfully by learning how to use it, users will tend to see its value immediately, and like it.

A quarterly newsletter

Quick Summary Findings

Reason for non-discovery
The reason most participants received using the facet/autosuggest feature was because they didn’t look at the autosuggest feature at all. Typically, participants typed a query in the search box and didn’t pay attention to the auto-suggestions while typing or before executing the query. This behavior has been documented in numerous occasions in the past.

Once they discover it, they may not realize how it works.
At first, two of the participants, who needed to be prompted to notice the facet autosuggestions, did not realize there was an extension (facet) to the autosuggestions in orange. They expected it to be taken to a page with a categorical answer being displayed under each category. When this did not happen and they were prompted further, they noticed the tabs/facets to the right and recognized the need to choose from it.

Once they learn how to use it, they like it.
Once they were familiar with it, all the participants liked the facet autosuggest feature.

One participant said it well: “I was new to Bing, I would take me a while to figure it out, but soon I got it, I think it was really nice.”

Understanding how facet autosuggestions are different from other suggestions takes a while
Once they started using the shopping feature, participants appreciated the differences, e.g.,

• I learned that orange tells me, for example,
• The black ones are limited to the 
• I like the orange so much it's
to the snippet on the right (facet) for 
• Now, the separate blocks are above and below the orange text. 

Tips
Tips for users can be reviewed here:
http://tc.pluralsight.com/2015/01/quick-pulse-findings-bing-shopping-autosuggest-facets/

Monthly Quick Pulse Newsletter
April and May

What are Quick Pulse Studies?
Quick Pulse Studies are a quick way to get user feedback without any effort or planning overhead. We schedule 5 participants to come into the lab each week and have them work with different parts of our site using polls, prototypes or screenviews. These studies have to be open to our traditional lab participants as well as those who are not part of the lab.

We’re running these studies on Monday or Tuesday for the next couple of months. It’s a $1,50 in our lab in Brazen 2. Feel free to stop by and observe these studies any time.

Topics Covered (click on topic to go directly to summary)

• search box on MSN | toolbar defender
• dynamic search | I travel
• toolbar defender 2 | users' own queries
• task bar in answers | reference in story | users' own queries
• people left rail | users' own queries
• hover in local answers

In summary

Week 1

Week 2

Topic 1: Search Box on MSN
PM: Mike Allen, Design Rockil Johnson

• Participants said they didn’t use the search box often on a portal and instead tended to use the search box in their browser.

Topic 2: Toolbar Defender
PM: Chris Jack, Design Rockil Johnson

• When installing the Bing Bar, users had trouble understanding what options to choose to accomplish their tasks.
• Users were confused by the box in the toolbar defender dialog box because the choices between the options aren’t clear. Educational recommended new text to help with the confusion and remove the options.
• For long-term changes, we recommended a change in flow for the dialog box which are tested in the next cycle (see below for findings on toolbar defender 2).

See full findings from week 1.

Week 2

Topic 1: Dynamic Search
PM: Chris Jack, Design Rockil Johnson

• Participants aren’t likely to see the Dynamic Search if they move below the fold.
• Participants said they didn’t use the Dynamic search if they were below the fold.
• Participants used the feature in the prototype for feedback and more information.
• Participants liked more reviews with ratings (especially the graphical treatment of the numbers).
Quick Pulse Study Pros & Cons

• Pros
  – Agile
  – Flexible
  – Minimal advanced planning
  – Immediate product impact

• Cons
  – No formal protocol
  – Lower data reliability
  – Risk of not utilizing the users
  – Risk of not running the formal study
Quick Pulse Study Application

- Works well with...
  - Sprint-specific work
  - Smaller/ Simpler features
  - Sprint demos
  - Quick UI fixes w/wireframes
  - Simple navigations
  - Simple scenarios
  - Paper prototypes
  - Storyboards

- Doesn’t work well with...
  - Method requires large N sample
  - Long-term/ E2E scenarios
  - Complex systems/ navigations
  - Competitive analysis
  - Benchmark studies
  - Card sort study
  - Surveys
  - International Studies
3. Persona Happy Hours

- Bring real users (our persona profile) to mingle w/ Team
- Talk and hang out with real users with food, music, and drinks!
3. Persona Happy Hours

- Bring the real users (persona profile) on Friday afternoon
- Invite designers, PMs, Devs, QAs to mingle with them
- A great way to get to know about target users in the informal settings
Persona Happy Hours
Goals of Agile UX

*The reference is from [http://theleanstartup.com/](http://theleanstartup.com/)*
Q&A