Usability Testing, Cont.

I214

16 Sept 2008

Usability Testing - Recap

A few representative users

Controlled environment

Controlled tasks

Close observation

-think aloud?

Recording

Analysis

Usability Testing

1. QUANTITATIVE
   - Formal, rigid testing, e.g. for time
   - Control extraneous factors (e.g., task, other resources)
   - Do nothing that will interfere, slow them down
   - Make careful measurements, e.g., time, errors

2. QUALITATIVE
   - Less emphasis on time and measurement, more on observing and understanding users' processes
   - Some form of think aloud
   - Can't measure time but can get at cognitive processes, reasoning
   - If observors ask questions, need to not interfere with user activities

Benefits of Formal Usability Testing

Clear results, clear feedback to designers

Simplifies conditions and observed activity

Focus on research/design questions, eliminating other “clutter”

Credibility:

- Quantitative: in quantitatively-oriented organizations, with quantitative professions (e.g., engineers), controlled experiment-like tests with quantitative measures
- Qualitative: when client, developers can see and hear users

Limits to Formal Usability Testing

- Unrepresentative conditions
- Unrepresentative tasks?
  - Limited to kinds of tasks amenable to testing
  - Short time period
- Unrepresentative users?
  - Limited number, range of users
  - Often novice users (e.g., for a new interface)
  - Testing effects: people do their 'best' when being observed
- Limited observation opportunity
- Can get at certain kinds of information and not others
- Labor-intensive for researchers
- Labor-intensive for users!

Usability testing: sources of "error" and how to control for them

History: try to minimize or match participants' experiences, events potentially related to the test (e.g., users of Nokia's vs other phones)

Selection: Participants

- Representative users
- Randomly assigned to treatment groups (if multiple)
- NOT professional testers
- Consider age, sex, experience
- People who are not easily intimated

Maturation: Time and learning -- people learn more about the task, develop better strategies

- Caution about re-using subjects
- Varying order of activities, tasks, of system designs tested (if >1)
- Short-term studies
- Longer-term studies
- Beware of fatigue, discouragement, boredom…

Usability testing: sources of "error" and how to control for them

Testing, test conditions:

controlled and replicated across test

Experimenter(s):

trained so that different people don't perform test differently

stay neutral! but can be friendly*

work from a script*

Task: controlled tasks, matched tasks, change order of tasks

Instrumentation: e.g., always use same interfaces, browsers, survey forms etc etc

Mortality: avoid dropouts

*however....

Remote Testing

Benefits?
Problems?

Remote Testing

Benefits:

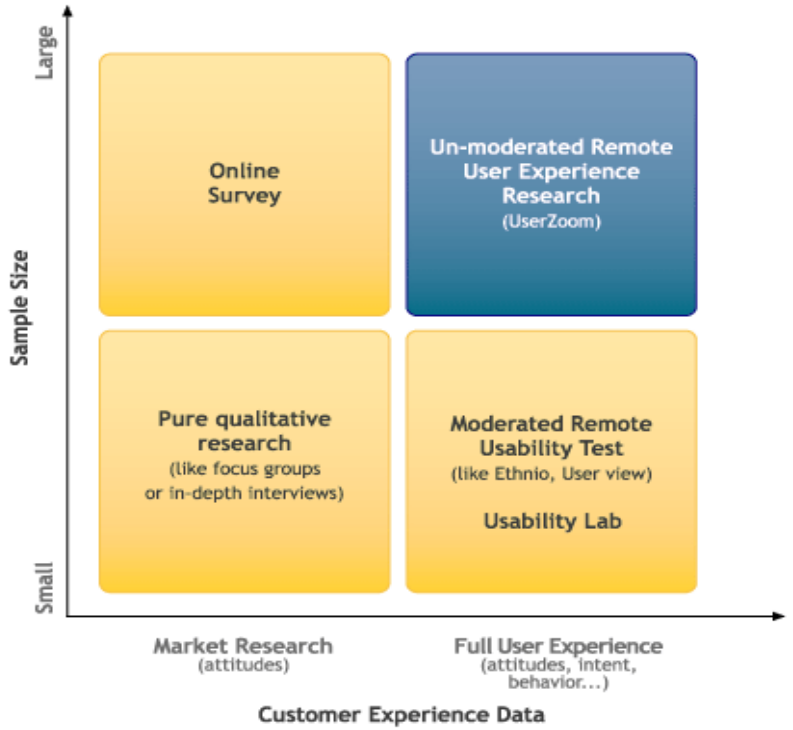
- Access to people who could not travel to your site
- Cost
- No need for special facilities
- Often results in an easy record of test

Problems:

- Difficult observation and data collection
- Lack of access to non-verbal cues
- Less interaction with participants
- Less control over conditions
- Technology isn't as flexible as one might want

New trend?
"Automated research"

Remote, unmoderated research methods – the moderators don't interact directly with participants.



"No face-to-face moderation is needed, so cost-effective. Used to evaluate and quantify usability and user experience, since we tests hundreds of users. Our software 'acts as the moderator', automatically gathering UX data with a simple browser plug-in. A test script is predefined by a UX consultant before users are invited to participate. Hundreds of users from geographically spread locations can participate simultaneously in their natural context."

http://www.userzoom.com/uz_method_unmoderated_remote_testing.asp

Remote Testing

http://boltpeters.com/ucsf/11Sylvia--Arrhythmia.swf

International Usability Testing

How to:

- go to the foreign country yourself
- run the test remotely
- hire a local usability consultant to run the test for you
- have staff from your local branch office run the test, even though they are not trained in usability

http://www.useit.com/papers/international_usetest.html

International Usability Testing

A lot harder than many think

Issues to consider:

- Re testing:
  - Culture and concepts of courtesy, of being tested, of individual vs group behavior
- Re the test:
  - Wording, logistics, interaction with researchers
  - Language: need specialized vocabulary, not just any interpreter/translator
- Re the design being tested

International Remote Testing

Access to users more varied than is possible otherwise

All problems of remote testing in general PLUS the problems of crossing cultures

Do with local experts!

Off-shoring usability testing

User Testing: Recruitment

Targeted participants?

How to locate?

How to persuade to participate?

- Money and other rewards

Number???!!!!