
Testing with Users:

How to Find Them and How Many Do We Need?

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Discussion Topics

- Finding Users
- Recruiting Users
- Determining the Number of Users
- Testing remotely

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Key Take-Away

**Usability Testing is Achievable
under the Paperwork
Reduction Act!**

Meeting Paperwork Reduction Act (PRA)

- USGS PRA Contact: James Sayer

April 15, 2020

https://my.usgs.gov/confluence/display/cdi/UsabilityMonthlyMeeting+2020_04_15

Finding Users

Finding Users

Your Target Audience and Testing Goal(s):

- Why are you testing?
- What are you testing?
- Who and where are your users?
 - Do you have more than one top persona (user segment)?
 - If yes, do you need to users from all the personas?
 - What are their key characteristics?

Finding Users - continued

Possible Sources for Users:

- Federal office colleagues
- Other USGS Federal colleagues from different offices
 - Community for Data Integration (CDI)
 - CDI Usability Collaboration Area
- External Federal colleagues
 - Collaborative Communities
 - Earth Science Information Partners (ESIP)
 - Professional Societies
 - Conferences
- The User-eXperience Lab (UXL) at the University of Tennessee, Knoxville
 - If anyone is interested in working with the UTK UX Lab, please get in touch to provide your project information. The compatibility of your project needs and the Lab's capabilities will be reviewed and determined accordingly.

Finding Users - continued

- Taking the time to find the right users for your usability testing is critical to the quality of your research.
- There are trade-offs in using “proxy users”.
- There is value in testing with both “proxy” and “real” users.
- When access to “real” users is challenging, it is especially important to be strategic about planning and testing for usability.

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Recruiting Users

Recruiting Users

- Invitation:
 - Be able to explain to potential participants:
 - The scope and goals
 - Logistics (e.g. location, date/time options, contact information, other attendees, technology compatibility, etc.)
 - What to expect
 - How participants will carry out their part
- Privacy/Confidentiality:
 - Understand the relevant policies.
 - Be able to explain to users how their data and any data generated in the study will and will not be used
- Compensation:
 - Understand the rules and regulations.

Recruiting Users - continued

Sample Recruitment Email from Usability.gov

SUBJECT LINE: The U.S. Department of Energy invites you to participate in a website study and earn [\$XX]!

Hello,

My name is _____, and I'm helping to run a usability study for the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE). In an effort to improve the website, we're looking for people who may be interested in trying out a website related to [TOPIC] and giving feedback after using it. If you qualify, you will receive [\$XX] to participate.

What will I be doing in a usability study?

You will be asked to do several short tasks using a website. You will also be asked questions about your experience and perceptions of the website.

How long is a session? One hour

When and where?

The study will be held [DAYS, DATES]. You will be asked to participate [in person at our office in XX.] OR [by phone. No traveling is required as this is a remote study that will be performed online. You may participate using your office or home computer.]

Interested in participating?

Please reply to this email with your contact information or call me at [ADD PHONE]. I'll give you a call to ask you some questions to help us determine if you qualify for the study.

If you have any questions, please contact me at [EMAIL].

Thank you for interest,

[NAME AND TITLE]

Determining the Number of Users

Quantitative & Qualitative (by Kara Pernice)

Quantitative & qualitative methods and recommended participants

Many users per research round

Quantitative usability tests (>20 users)

Tree testing (50-100 users)

Eyetracking heatmaps (40 users)

Card sorting (~20 users)

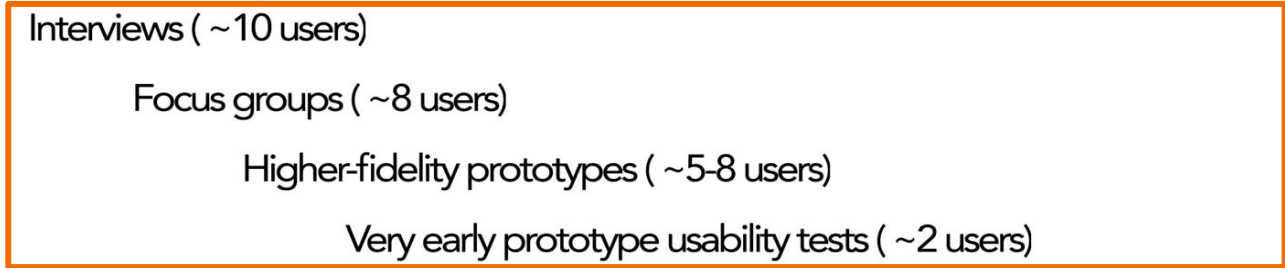
Interviews (~10 users)

Focus groups (~8 users)

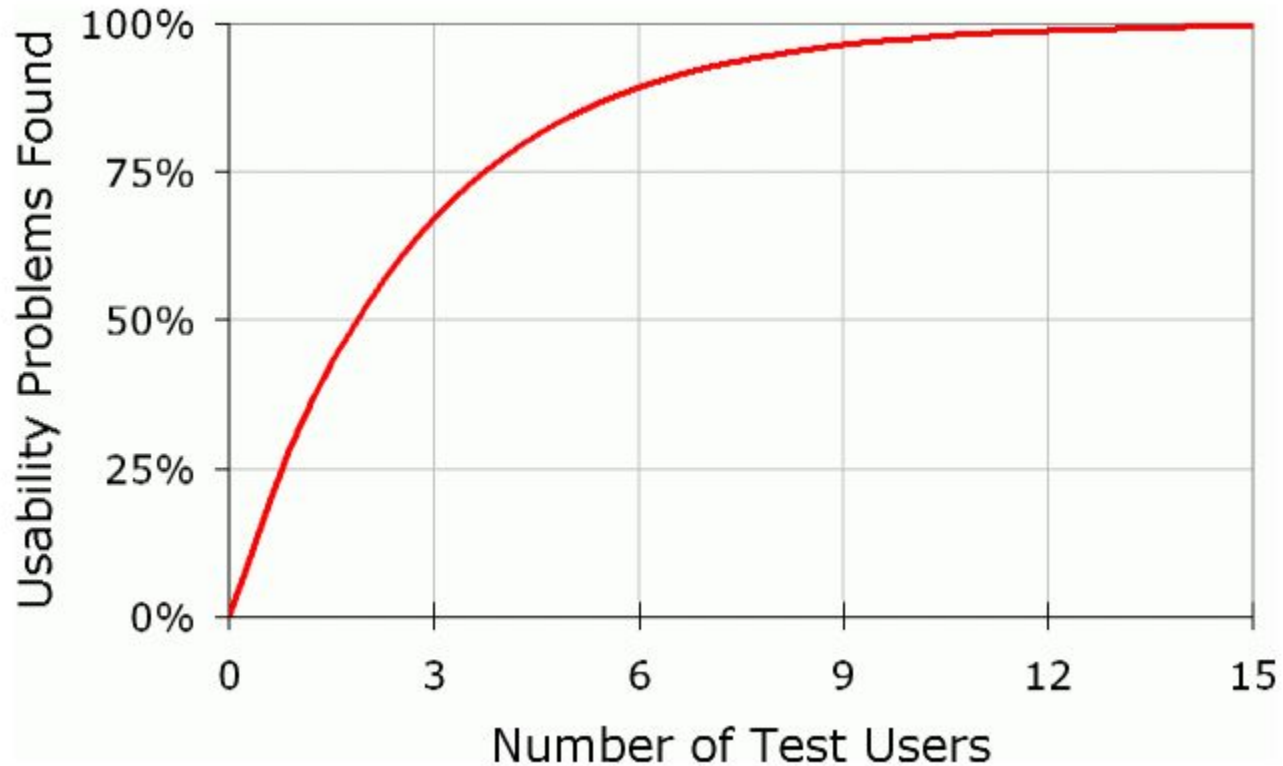
Higher-fidelity prototypes (~5-8 users)

Very early prototype usability tests (~2 users)

Few users per research round



Testing with 5 Users (by Jakob Nielsen)



Additional Considerations

- Potential inconsistency in a user's reaction.
- "Statistical approach" might not always be appropriate for problem discovery.
 - Context and complexity of the evaluation are important to consider.
- Research from the broader usability community suggests that:
 - 3 to 20 participants can provide valid results.
 - 5 to 10 participants helps establish a good baseline.
- **Zero users give zero insights.**

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Testing Remotely

Moderated Sessions

- Allows us to reach our participants in a setting that is natural or comfortable them.
- Leverages virtual conferencing and screen sharing technology.
 - Phone conversations could also be viable.

Important to Consider:

- Participant's context, including the familiarity with the technology involved.
- Accessibility of the system-under-test by the participants.
- Potential backup plan if technology fails.
- Maintaining neutrality (including the selection and setting of the session moderators).
- Any consent requirements.

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Thank You!