

week::nine

Usability Testing: Methods & Practices

Usability Testing

Defined

- Watching people try to use what you're creating/designing/building (or something you've already created/designed/built), with the intention of (a) making it easier for people to use or (b) proving that it is easy to use. (Krug, 13)

Why Perform Testing?

- All sites have problems; simply by watching users try to use your site you can reveal serious problems quickly.
- Usability testing is the only reliable way to determine if the design for a website is usable by its intended audience.
 - You can't depend on the designer to judge their own work.
- Potential differences between the designer and audience include:
 - Orientation; Background; Experiences; Expectations

Types of Testing

Exploratory

- Determines if functions are useful and appropriate.
- Establishes how well a design fits the participant's mental model.
 - *Mental model*: Assumptions and expectations about how things should work for the tasks being examined.

Assessment

- Helps determine how well the features of a website have been implemented in a design.
- Often performed near the middle or end of the design process.
- Sometimes called a "treasure hunt".
- Uses benchmarks to measure the success of each task, often in the form of timed durations.
- A monitor observes a test subject perform the requested tasks, while a recorder documents the recordable data (times, user actions, etc.).
 - The monitor cannot assist the test subject.
- Sessions are often recorded on video for further analysis.

Evaluation

- Same as an Assessment test, but performed *after* the launch of a website or product.
- Determines *which* design changes to make in the future.

Comparison (A/B) Testing

- Can be performed anytime, though often at the beginning of a project.
- Compares two or more widely different approaches to a design problem to gain early insight to a complex design challenge.

For all types...

- Remember, you are not a scientist, so don't try to be one.
- Perform *qualitative* testing, not *quantitative*.
- Your goal is not to prove anything—it is to gain insights into how users interact with your site.

Testing Overview Chart

WHEN TO PERFORM	TEST'S PURPOSE	TEST METHODOLOGY
Exploratory Test		
Early in the design phase	Compare how well the functions presented match the users' mental model	The participant is asked to compare website features with expectations, assumptions, and hopes. The monitor probes for confusing design elements and asks for subject's recommendations.
Assessment Test		
Early to midway through the design phase	Determine how well the features have been implemented in the design	As the participant completes given tasks, the monitor observes silently and records any difficulties the subject has with the interface. The monitor may time or otherwise measure the participant.
Evaluation Test		
After a website is in use	Determine if existing website is achieving its design goals	Similar to the Assessment test.
Comparison Test		
Often early in the design phase, but may be performed at any time	Compare two or more widely differing design approaches	The participant is asked to perform given tasks using different design. The findings are used to select the superior design or create a new design that combines the strongest features of all the tested designs.

Source: *Exploring Interface Design*, Silver, Marc (2005).

Sample Size

Opinion One (Marc Silver):

- When designing a testing methodology, 15 people is the recommended sample size.
- Don't test everyone at once—**test in three groups of five**, making design modifications before each new group.
- Why?
 - Three people is simply too few; Greater than five produces no new, meaningful results.
 - Allows you to fix major problems before the next group meets.
 - Additionally, this allows you to test any revisions you made in response to previous group's feedback.

Opinion Two (Steve Krug):

- Test **three people** in one morning once a month, every month.
- Make changes to your site between tests.
- Why?
 - First three users are very likely to encounter many of the most significant problems related to the tasks you are testing.
 - It's more important to do *more* rounds of testing than to do one round with a lot of people.
 - Makes for shorter days for you and your team.
 - Easier to find three people than five.

Which one should you use?

- Doesn't matter, as long as you *actually do* perform user testing.

Steps to Conducting a Usability Test

1. Create the test plan
2. Select the participants
3. Prepare the test materials
4. Conduct the test
5. Debrief the participants
6. Convert the test results into recommendations

Testing Roles

The Monitor

- The host of the usability test.
- This person should *not* have a personal or professional stake in the outcome of the test.
 - The designer cannot be objective enough to run the usability test fairly.

The Participant

- The user being tested.
- Must follow the monitor's instructions, and try to complete the tasks to the best of their ability.

The Recorder

- Records the steps that the participant takes.
- Makes note of key dialog between the participant and monitor.
- Measures and records the time the participant takes to complete a task.
- Adobe XD supports recording of user sessions within the application.

The Observers(s)

- Includes members of the development team, including designers.
- Only one or two should be allowed in a room without two-way mirrors.
- Must be completely silent during the testing process.

Typical Usability Testing

Room Setup

- The observer(s) can be visible to the test subject, though it's preferable that they be hidden from view.
- Don't position the monitor or recorder too close to the subject—ensure that they are comfortable by giving them an appropriate amount of space.
- In addition to the video camera, you can use screen recording software to record the user's testing session.
- Do not forget the plant—it's a critical part of usability testing. No, seriously, the book says it helps create a relaxing atmosphere. Honestly, it's in the book. Just go read it.

