

NOTES FROM JAKOB NIELSEN ONLINE

Usability is defined by five quality components:

LEARNABILITY: How easy is it for users to accomplish basic tasks the first time they encounter the design?

EFFICIENCY: Once users have learned the design, how quickly can they perform tasks?

MEMORABILITY: When users return to the design after a period of not using it, how easily can they reestablish proficiency?

ERRORS: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?

SATISFACTION: How pleasant is it to use the design?

The three main rules for simplified user testing:

1. Get representative **users**
2. Ask them to perform representative **tasks** with the design
- 3. Shut up** and let the users do the talking

It's important to test users individually and let them solve any problems on their own. If you help them or direct their attention to any particular part of the document you have contaminated the test results.

To identify a design's most important usability problems, testing **five users** is typically enough. Rather than run a big, expensive study, it's a better use of resources to run many small tests and revise the design between each one so you can fix the usability flaws as you identify them. Iterative design is the best way to increase the quality of user experience. The more versions and interface ideas you test with users, the better.

When to work on usability:

1. Before starting the new design, **test the old design** to identify the good parts that you should keep or emphasize, and the bad parts that give users trouble.
2. Make **prototypes** of one or more new design ideas and test them. The less time you invest in these design ideas the better, because you'll need to change them all based on the test results.
3. Once you decide on and implement the **final design**, test it again. Subtle usability problems always creep in during implementation.

TYPES OF TESTING

(from Concise Guide to Technical Communication p. 36)

QUALITATIVE – observe how users react to the document, what they say and/or do.

Use a **focus group** – set up a list of questions about the document (its content, organization, style, design, etc) and let users discuss what they like/don't like, what works or doesn't, and what they find easy/hard to understand. Listen to their suggestions for improvements and take notes.

Use **protocol analysis** – in a one-to-one interview, the user looks at and reads specific parts of the document and then explains what that part means. In think-aloud protocol analysis, the user is asked to read or find information and think out loud about what they find useful or confusing about the document.

QUANTITATIVE – use numeric analysis

Compare success rates on specific tasks with people using different versions of the document.

Measure the time required to complete a specific set of tasks and their accuracy rate.

Combination – use both qualitative and quantitative analysis for the best results.