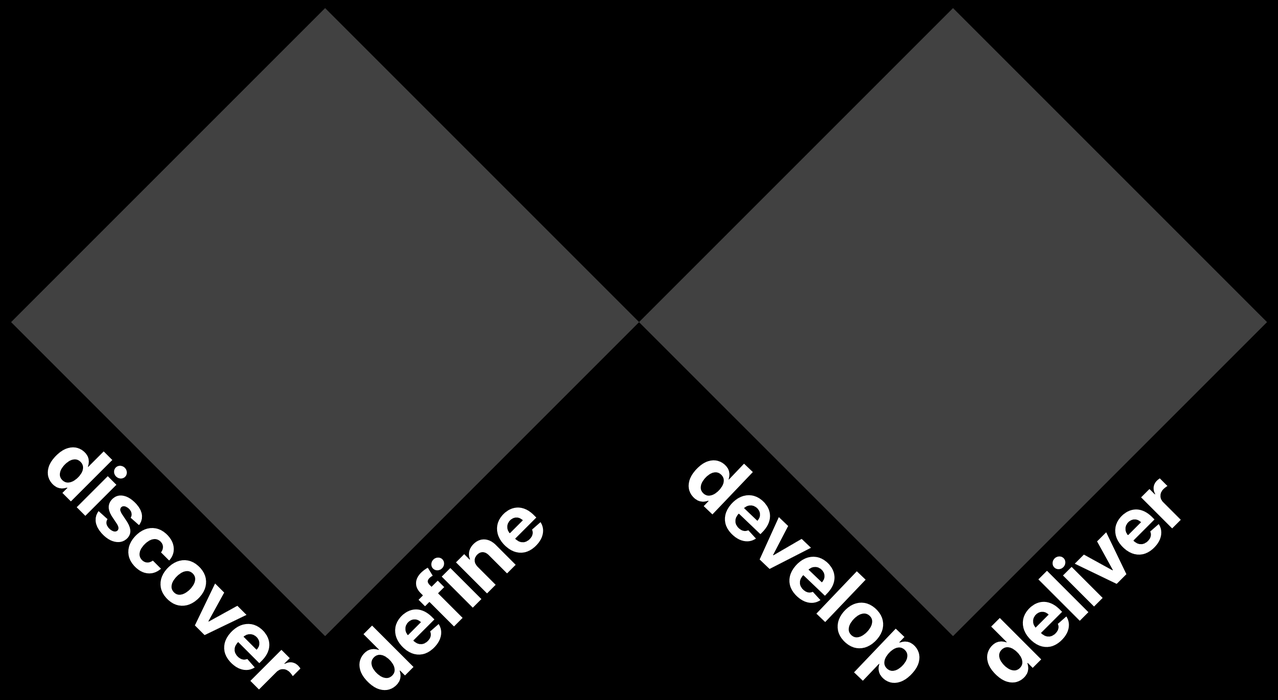
Lec 16

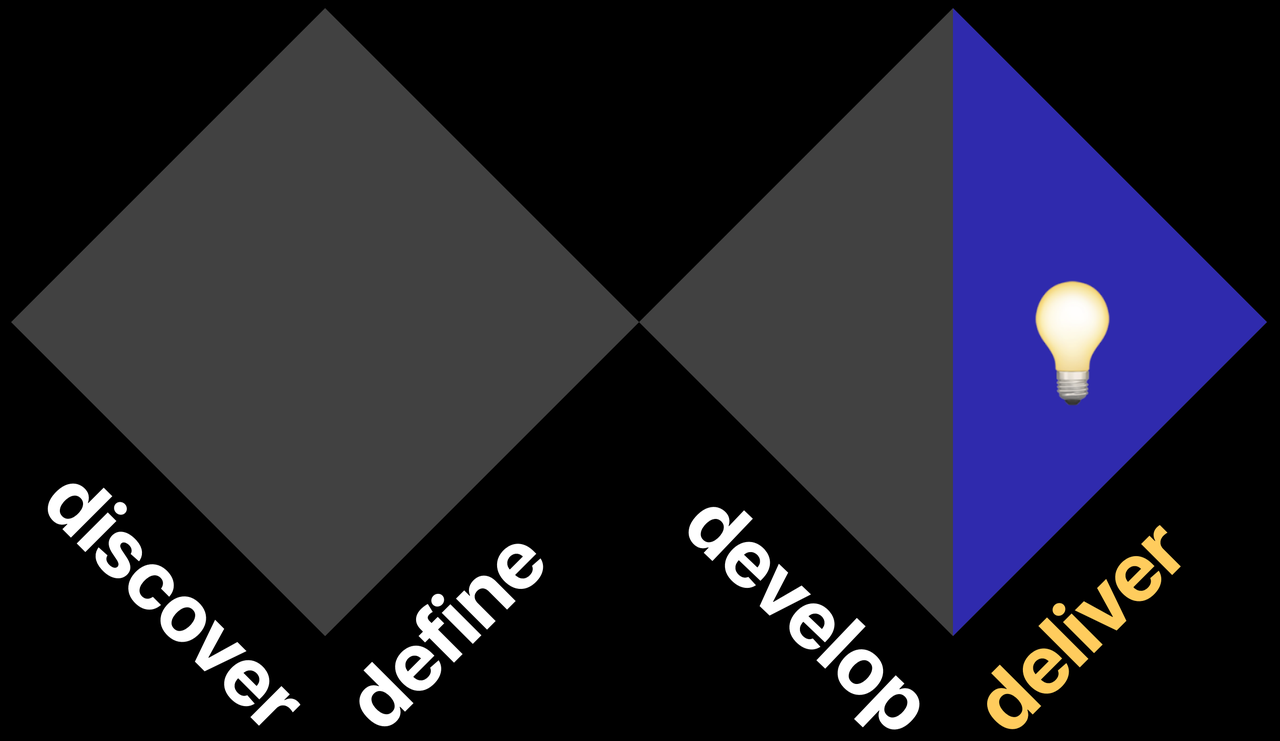
Evaluation (or validation)

Heuristic Evaluation, Usability Testing, Evaluation Tools

Omar Hammad


USABILITY
OF FRUIT


discover
define
develop
deliver


discover
define
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deliver

Why UX Evaluation

Why do we do evaluation

- Validate our assumptions
- Uncover problems
- Discover opportunities
- Learn about the users
- ....

How ?

Evaluation methods

- Heuristic Evaluation
- Usability Testing
- Analytics
- A/B Testing

Heuristic Evaluation

good enough

Nielsen Norman Group

Jakob's Ten Usability Heuristics

1 Visibility *of* System Status

Designs should *keep users informed* about what is going on, through appropriate, timely feedback.

Interactive mall maps have to show people where they currently are, to help them understand where to go next.

2 Match between System and the Real World

The design should speak the users' language. Use words, phrases, and concepts *familiar to the user*, rather than internal jargon.

Users can quickly understand which stovetop control maps to each heating element.

3 User Control *and* Freedom

Users often perform actions by mistake. They *need a clearly marked "emergency exit"* to leave the unwanted action.

Just like physical spaces, digital spaces need quick "emergency" exits too.

4 Consistency *and* Standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. *Follow platform conventions.*

Check-in counters are usually located at the front of hotels, which meets expectations.

5 Error Prevention

Good error messages are important, but the best designs carefully *prevent problems* from occurring in the first place.

Guard rails on curvy mountain roads prevent drivers from falling off cliffs.

6 Recognition Rather Than Recall

***Minimize the user's memory load* by making elements, actions, and options visible. Avoid making users remember information.**

People are likely to correctly answer "Is Lisbon the capital of Portugal?".

7 Flexibility *and* Efficiency of Use

Shortcuts — hidden from novice users — may *speed up the interaction* for the expert user.

Regular routes are listed on maps, but locals with more knowledge of the area can take shortcuts.

8 Aesthetic *and* Minimalist Design

Interfaces should not contain information which is irrelevant. Every extra unit of information in an interface *competes* with the relevant units of information.

A minimalist three-legged stool is still a place to sit.

9 Recognize, Diagnose, *and* Recover from Errors

Error messages should be expressed in plain language (no error codes), precisely indicate the problem, and constructively suggest a solution.

Wrong-way signs on the road remind drivers that they are heading in the wrong direction.

10 Help *and* Documentation

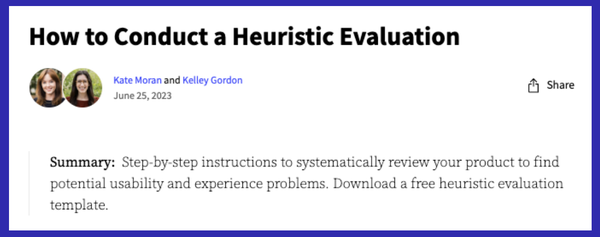
It's best if the design *doesn't need* any additional explanation. However, it may be necessary to provide documentation to help users complete their tasks.

Information kiosks at airports are easily recognizable and solve customers' problems in context and immediately.

Interface Evaluation

- Open your top benchmark app
- Use the 10 Usability Heuristics
- Choose 2 Heuristics
- Evaluate it using each one

Google this when not sure



How to Conduct a Heuristic Evaluation

Kate Moran and Kelley Gordon
June 25, 2023

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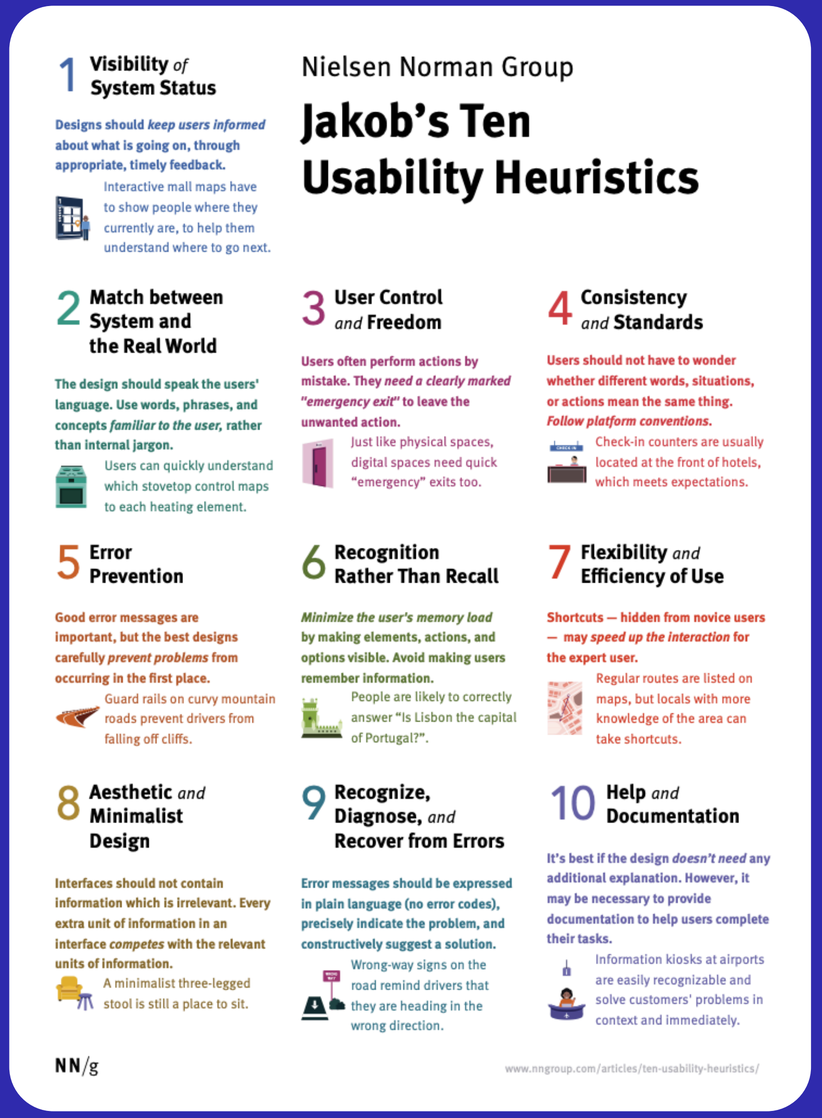
Summary: Step-by-step instructions to systematically review your product to find potential usability and experience problems. Download a free heuristic evaluation template.



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NN/g

www.nngroup.com/articles/ten-usability-heuristics/

Moderate Usability testing

Usability testing tips

- Set clear goals
- Design Task to satisfy goals
- Recruit real participants
- Ask neutrally to not bias them
- Don’t give hints
- Ask follow up questions
- Possible metrics: Task Success, Time on Task, # Errors, # actions, Satisfaction (scale)

Podcast Example

Goal

Evaluate how easily users can subscribe to a new podcast on the app.

Task

Find a podcast about technology then subscribe to it.

Banking Example

Goal

Evaluate how easily users can transfer money to a new recipient

Task

Transfer 500 SAR to a new recipient. Add the recipient's account details, complete the transfer, and confirm it has been sent successfully.

Robot UI Example

Goal

Assess how effectively users can command a robot to navigate to a specific location using the interface

Task

Using the interface, instruct the robot to move from its current location to the living room. Ensure it starts the task and successfully reaches the destination.

Usability Testing

- Keep the same app open
- Write down one question
- Define a task to answer it
- Conduct with pair
- Ask follow up
- Switch roles

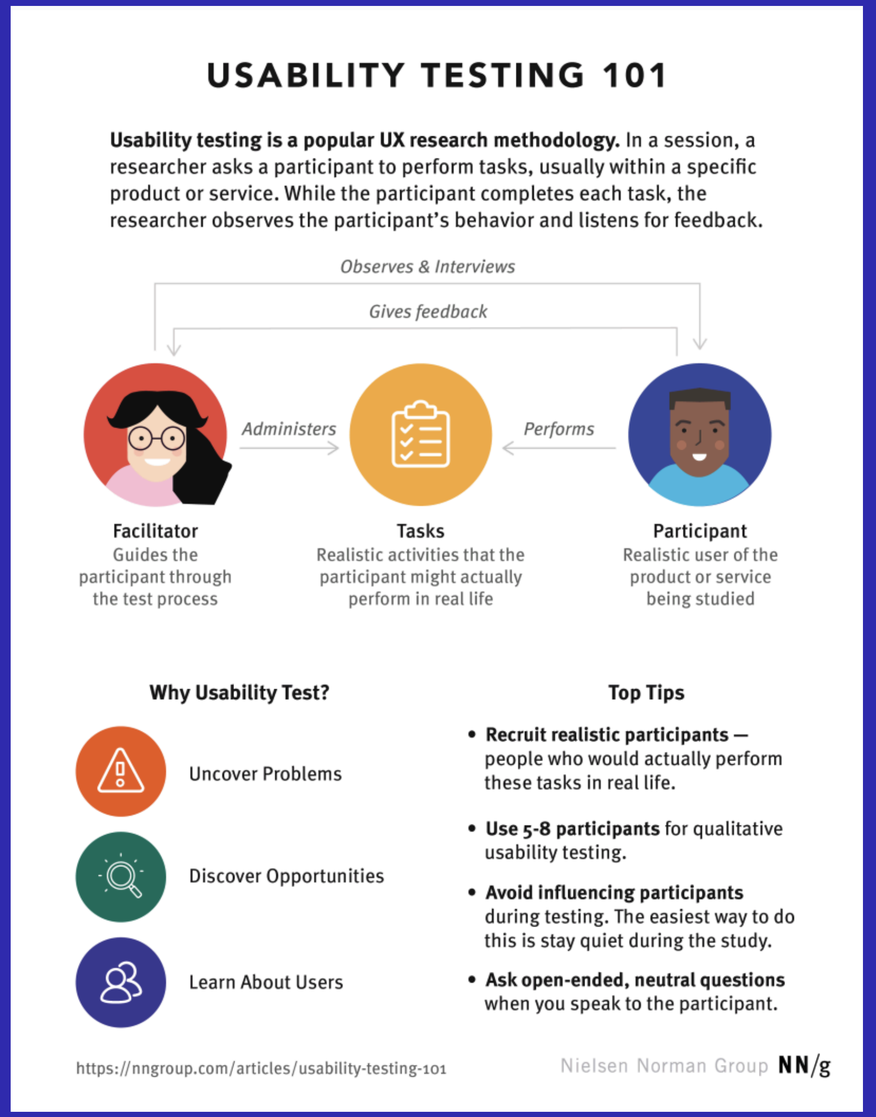
Google this when not sure

Usability (User) Testing 101

Kate Moran
December 1, 2019

Share

Summary: UX researchers use this popular observational methodology to uncover problems and opportunities in designs.



USABILITY TESTING 101

Usability testing is a popular UX research methodology. In a session, a researcher asks a participant to perform tasks, usually within a specific product or service. While the participant completes each task, the researcher observes the participant's behavior and listens for feedback.

Observes & Interviews

Gives feedback

Administers

Performs

Facilitator
Guides the participant through the test process

Tasks
Realistic activities that the participant might actually perform in real life

Participant
Realistic user of the product or service being studied

Why Usability Test?

Uncover Problems

Discover Opportunities

Learn About Users

Top Tips

- **Recruit realistic participants —** people who would actually perform these tasks in real life.
- **Use 5-8 participants** for qualitative usability testing.
- **Avoid influencing participants** during testing. The easiest way to do this is stay quiet during the study.
- **Ask open-ended, neutral questions** when you speak to the participant.

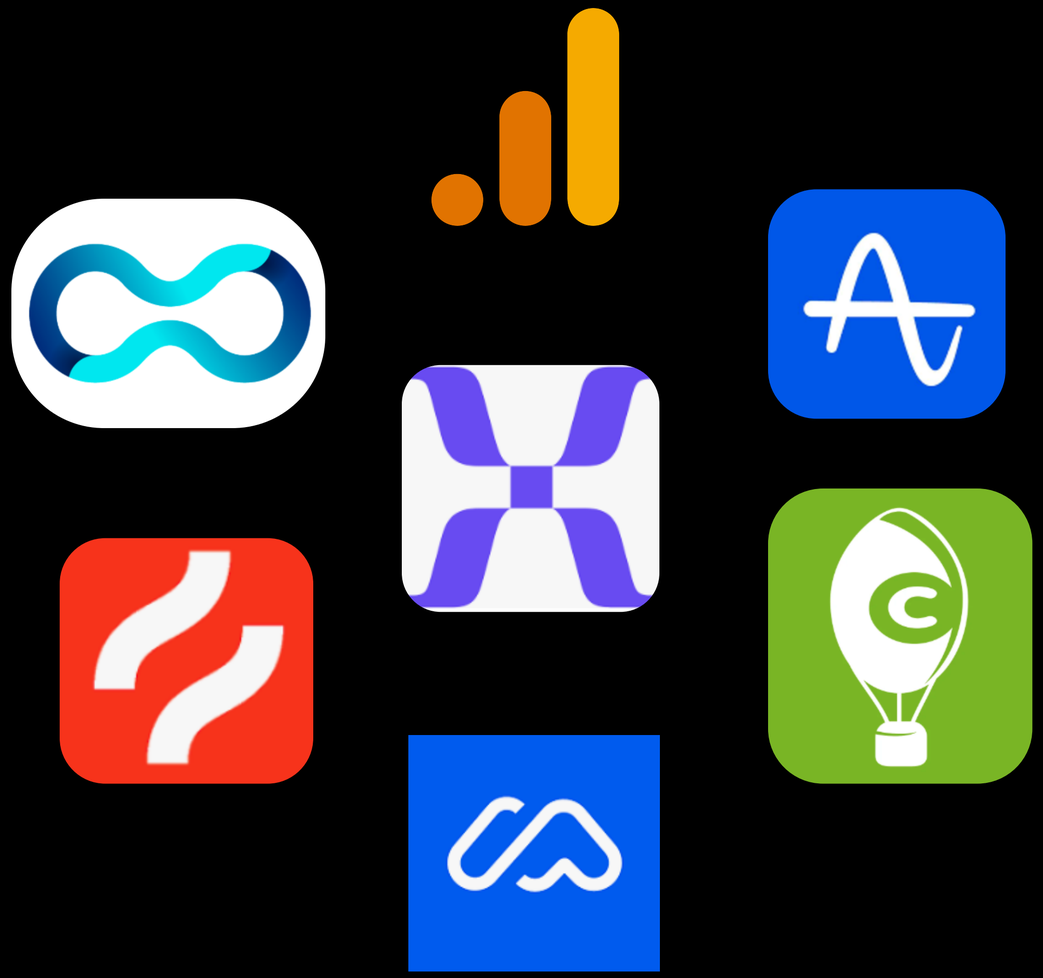
https://nngroup.com/articles/usability-testing-101

Nielsen Norman Group **NN/g**

Unmoderated Usability testing

Evaluation Tools

- Nielsen’s 10 Usability Heuristics
- Maze for remote usability
- Hotjar for heatmaps & recordings
- Mixpanel for analytics
- Smartlook combines both
- Crazy egg for A/B testing
- Amplitude for deep product analysis
- Google Analytics for marketing data



Maze Demo

CREATE A MAZE!

- If deployed google: maze live website testing
- else google: maze and get started
- follow the website instructions