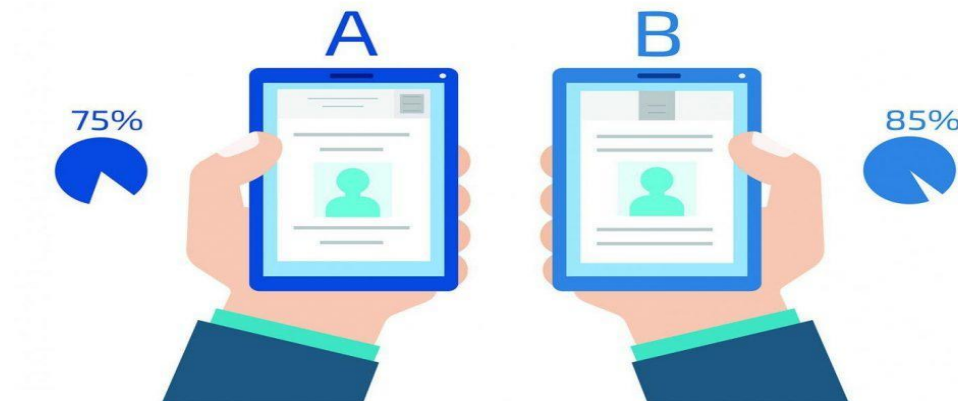# Usability Testing

What is Usability Testing?

▶ Usability testing is the practice of testing how easy a design is to use with a group of representative users.

▶ It usually involves observing users as they attempt to complete tasks and can be done for different types of designs.

▶ It is often conducted repeatedly, from early development until a product's release.

▶ *"It's about catching customers in the act, and providing highly relevant and highly contextual information."*

Usability Testing Leads to the Right Products

▶ Through usability testing, you can find design flaws you might otherwise overlook. When you watch how test users behave while they try to execute tasks, you'll get vital insights into how well your design/product works. Then, you can leverage these insights to make improvements.

▶ Whenever you run a usability test, your main objectives are to:

   1) Determine **whether testers can complete tasks successfully and independently**.

   2) Assess their **performance and mental state** as they try to complete tasks, to see how well your design works.

   3) See **how much users enjoy** using it.

   4) Identify **problems** and their **severity**.

   5) Find **solutions**.

▶ While usability tests can help you create the right products, they shouldn't be the only tool in your UX research toolbox.

Usability Testing is an Iterative Process

- ▶ **Plan**

- ▶ **Set user tasks**

- ▶ **Recruit testers**

- ▶ **Facilitate/Moderate testing**

- ▶ **Assess User Task**

- ▶ **Create Test Reports/Documentation**
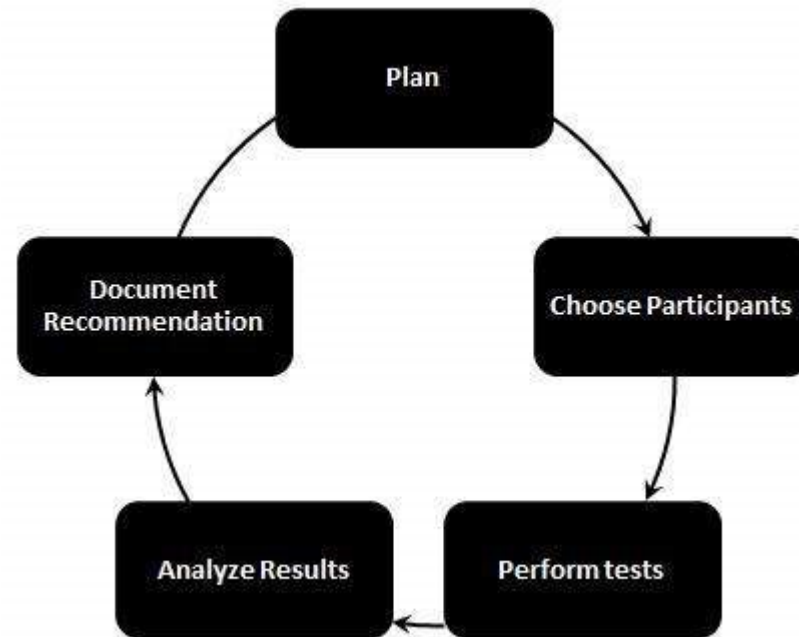
1. Plan

▶ **Define what you want to test**. Ask yourself questions about your design/product. What aspect/s of it do you want to test? You can make a hypothesis from each answer. With a clear hypothesis, you'll have the exact aspect you want to test.

▶ **Decide how to conduct your test** – e.g., remotely. Define the *scope* of what to test (e.g., navigation) and stick to it throughout the test. When you test aspects individually, you'll eventually build a broader view of how well your design works overall.

2. Set user tasks

- ▶ a. **Prioritize the most important tasks to meet objectives** (e.g., complete checkout)

- ▶ b. **Clearly define tasks with realistic goals**.

- ▶ c. **Create scenarios where users can try to use the design naturally**. That means you let them get to grips with it on their own rather than direct them with instructions.

3. Recruit testers

▶ Know who your users are as a target group. **Use screening questionnaires** (e.g., Google Forms) to find suitable candidates. You can **advertise and offer incentives**. You can also find contacts through **community groups**, etc. If you test with only 5 users, you can still reveal 85% of core issues.

4. Facilitate/Moderate testing

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- Set up testing in a **suitable environment**. **Observe and interview users**. **Notice issues**. See if users fail to see things, go in the wrong direction or misinterpret rules.

- When you record usability sessions, you can more easily count the number of times users become confused. **Ask users to *think aloud* and tell you *how they feel*** as they go through the test.

- From this, you can check whether your designer's mental model is accurate: Does what *you* think users can do with your design match what these *test users* show?

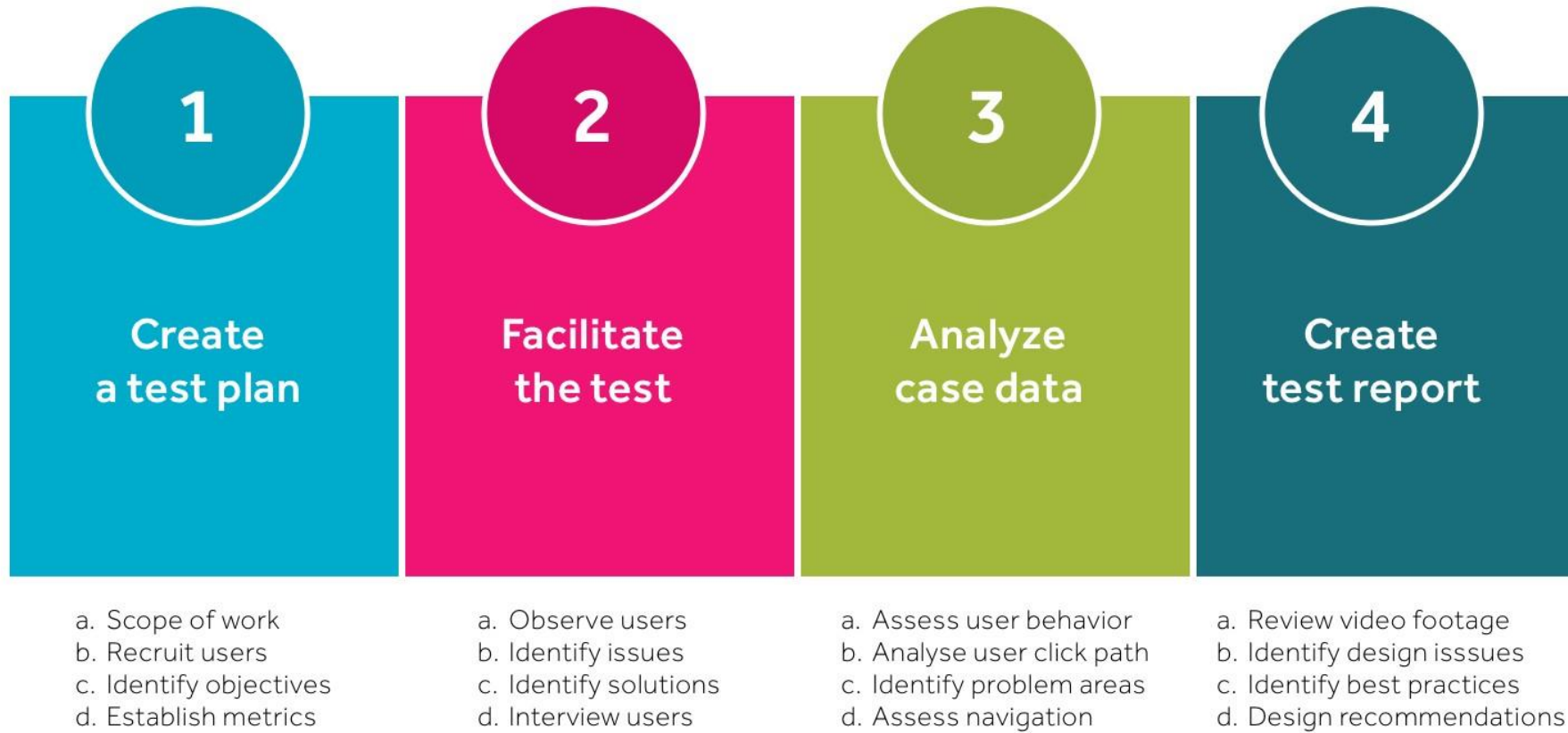# Assess user behavior

Assess user behavior – Use these metrics:

▶ **Quantitative** – time users take on a task, success and failure rates, effort (how many clicks users take, instances of confusion, etc.)

▶ **Qualitative** – users' stress responses (facial reactions, body-language changes, squinting, etc.), subjective satisfaction (which they give through a post-test questionnaire) .

5. Create a test report

- **Create a test report** – Review video footage and analyzed data. Clearly define design issues and best practices. Involve the entire team.

- Overall, you should test not your design's functionality, but users' *experience of it*. Some users may be too polite to be entirely honest about problems. So, always examine *all* data carefully.

Summary

|			
1	**2**	**3**	**4**
Create a test plan	**Facilitate the test**	**Analyze case data**	**Create test report**
a. Scope of work b. Recruit users c. Identify objectives d. Establish metrics	a. Observe users b. Identify issues c. Identify solutions d. Interview users	a. Assess user behavior b. Analyse user click path c. Identify problem areas d. Assess navigation	a. Review video footage b. Identify design isssues c. Identify best practices d. Design recommendations

Methods of Usability Testing:

- There are two methods available to do usability testing -

1. Laboratory Usability Testing

2. Remote Usability Testing

Laboratory Usability Testing

- **Laboratory Usability Testing:**. This testing is conducted in a separate lab room in presence of the observers. The testers are assigned tasks to execute. The role of the observer is to monitor the behavior of the testers and report the outcome of testing. The observer remains silent during the course of testing. In this testing, both observers and testers are present in a same physical location.
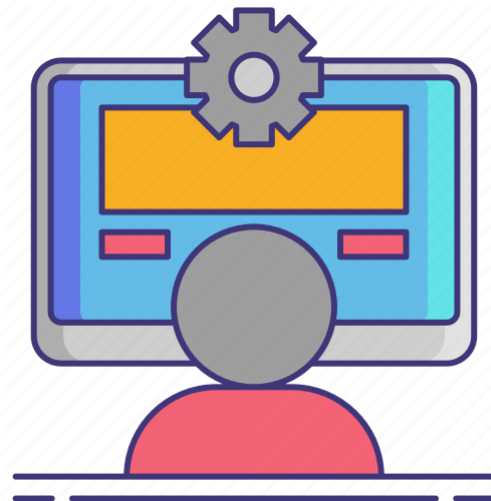
Remote Usability Testing

▶ **Remote Usability Testing**: Under this testing observers and testers are remotely located. Testers access the System Under Test, remotely and perform assigned tasks. Tester's voice , screen activity , testers facial expressions are recorded by an automated software. Observers analyze this data and report findings of the test.

UX Testing Checklist

▶ The primary goal of this testing is to find crucial usability problems before the product is launched. Following things have to be considered to make a testing success:

• Start the UX testing during the early stage of design and development

• It's a good practice to conduct usability testing on your competitor's product before you begin development. This will help you determine usability standards for your target audience

• Select the appropriate users to test the system(Can be experts/non-experts users/50-50 of Experts and Non-Experts users)

• Use a bandwidth shaper . For instance , your target audience has poor network connectivity , limit network bandwidth to say 56 Kbps for your usability testers.

• Testers need to concentrate on critical & frequently used functionalities of the system.

• Assign a single observer to each tester. This helps observer to accurately note tester's behavior. If an observer is assigned to multiple testers, results may be compromised

• Educate Designers and Developers that this testing outcomes is not a sign of failure but it's a sign of Improvement

Usability Testing Advantages

▶ As with anything in life, usability testing has its merits and de-merits. Let's look at them

• It helps uncover usability issues before the product is marketed.

• It helps improve end-user satisfaction

• It makes your system highly effective and efficient

• It helps gather true feedback from your target audience who actually use your system during a usability test.

Usability Testing Disadvantages
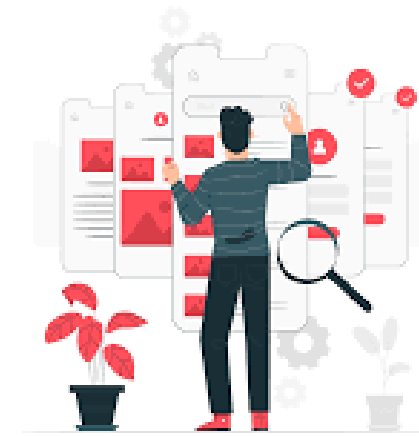
USABILITY TESTING

▶ Cost is a major consideration in usability testing.

▶ It takes lots of resources to set up a Usability Test Lab.

▶ Recruiting and management of usability testers can also be expensive

- Questions??