

# User Research & Testing



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## 0. INTRODUCTION



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Accessibility isn't just about inclusion, it's also a real **business opportunity**. It can help reach more users, improve SEO, and reduce development costs in the long run.

## **Summary**



- 0. Introduction**
- 1. Prepare yourself and control your environment**
- 2. Create your test protocol and follow it**
- 3. Analyze**
- 4. Make a report**

## Understanding Usability Testing Through *Usability of Fruits* 🍉🍉

### What is Usability Testing?

- **Observing Real User Behavior** 🕵️: Watching how people interact with a product without guidance.
- **Identifying Pain Points ✗**: Noticing where users struggle, hesitate, or make errors.
- **Gathering Insights for Improvement 🔄**: Using findings to refine the design.



<https://youtu.be/3Qg80qTfzgU?feature=shared>

Here, we introduce the concept of user testing. To introduce this concept, we rely on the video that shows user tests using fruits.

## Understanding Usability Testing Through *Usability of Fruits*

### Lessons from Usability of Fruits Video

This playful experiment demonstrates usability principles by testing how easy (or difficult) it is to "use" different fruits:

Affordance Matters – Can users tell how to interact with it? (e.g., peeling a banana vs. a pineapple)

- Expectation vs. Reality – Do people interact with it the way designers intended?
- Feedback is Key – Does the product provide clear signals when used correctly or incorrectly?
- Iterate & Improve – If something isn't intuitive, how can it be redesigned to be more user-friendly?

### How This Relates to Digital Products

- Navigation = Peeling a Fruit: If users struggle to figure out how to "open" a feature, there's a usability issue.
- Error Prevention = Seedless Experience: Removing unnecessary obstacles leads to a smoother journey.
- User-Centered Design = Choosing the Right Fruit: A great product matches user needs and expectations.

We're debriefing here on the video we watched about user testing with fruits.

## Lexicon

- **Persona:** A fictional character based on real user data, representing a typical user's goals, needs, behaviors, and pain points.

Why use it? Personas help design teams stay focused on real users' needs and expectations.

*Example: Emma, 32, beginner DIY enthusiast who wants to learn how to fix things at home.*

- **User feedback:** Information collected directly from users about their experience, needs, difficulties, or satisfaction.

Why is it important? It helps improve products by identifying usability issues and validating design decisions.

The purpose of this slide is to explain the main principles related to user feedback. We will discuss what personas are and what user feedback entails.

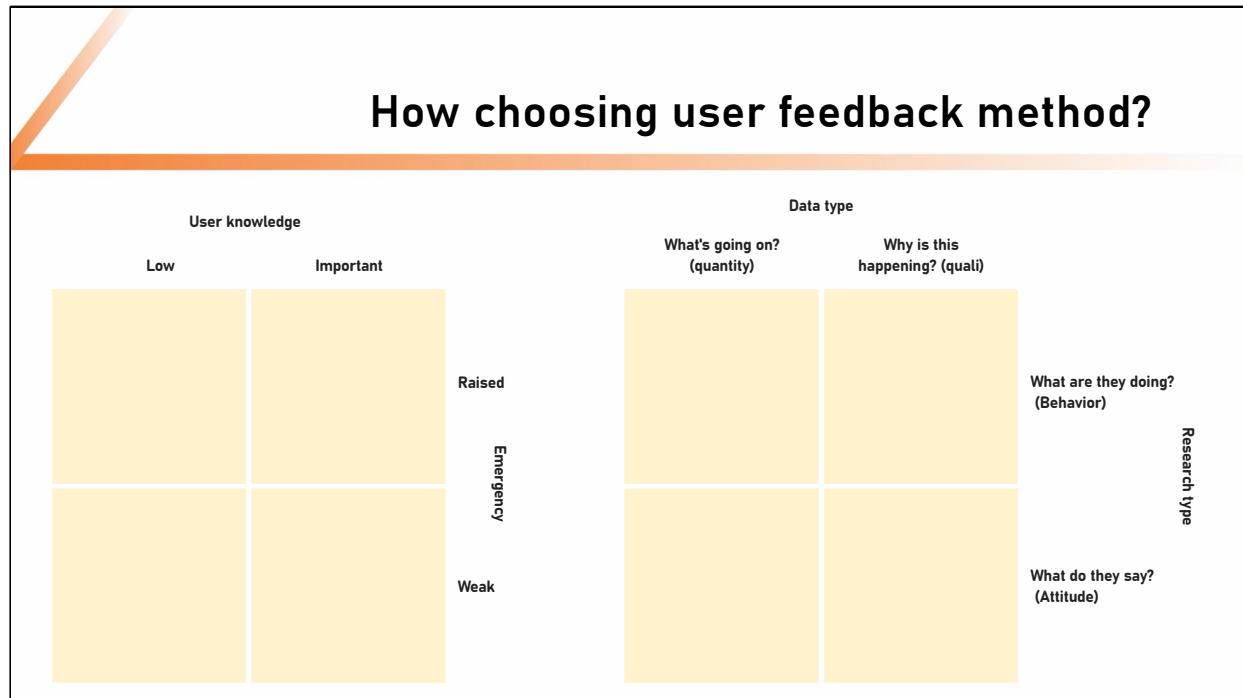
## Before we start



- What methods of collecting user feedback are you aware of?  
(post-its)

Learners are asked to share the user feedback collection methods they know. We're in brainstorming mode.

## How choosing user feedback method?



This slide is designed to use a flipped classroom approach.

Ask participants to brainstorm and try to fill in the empty matrix based on what they know or what they imagine.

Encourage them to think about:

- When to use a quantitative or qualitative method.
- When to observe user behavior or collect user attitudes.
- How the user knowledge level influences their choice.

After the discussion, move to the next slide to compare their answers with the completed version

## How choosing user feedback method?

User knowledge		Data type			Research type
Low	Important	Raised	What's going on? (quantity)	Why is this happening? (quali)	
Emergency	Weak		Analytics A/B Test Clickstream Unmoderated user tests Tree testing	Observation User tests	
Unmoderated user tests Clickstream Email survey	Cognitive walkthrough Expert evaluation Design Studio				What are they doing? (Behavior)
User Tests Interviews Observation Diary	Remote Users Tests A/B Test Prototype		Survey Online User Feedback	Interview Design Studio Cards sorting Desirability testing	What do they say? (Attitude)

Here is the completed matrix. Compare it with what participants suggested in the previous exercise.

Take time to explain each method and when it is most relevant, highlighting the differences between behavior and attitude, qualitative and quantitative data.

## 3 types of goals

### Generative

Better understand the Persona to imagine solutions.



### Evaluative

Analyze the interaction between the Persona and a particular product/service to improve it.



### Hybrid

Better understand the Persona while analyzing the interaction (advanced)



Here we explain the three types of user feedback. Generative feedback lets us brainstorm solutions based on user needs. Then, evaluative feedback gathers users' opinions on the solution. Finally, the hybrid mode is a mix of the two.



## From opinion to facts

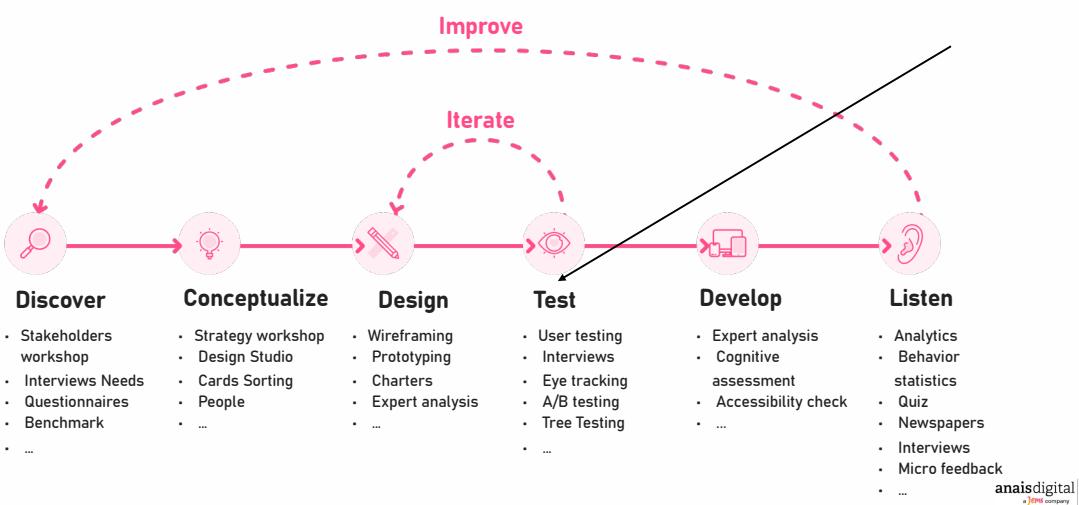
*The best designers use facts to guide them. It is (more) difficult to question solid facts.*

Sarah Doddy

In a digital project, it's important to rely on user feedback rather than the opinions of the project team.

<https://lesjoiesducode.fr/quand-je-vois-les-utilisateurs-finaux-se-servir-de-lappli>

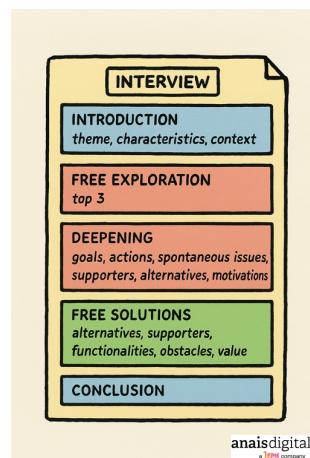
## UX as a process



Testing is naturally the Design Phase and before Development. It's integrated in the iterative loop : make and learn.

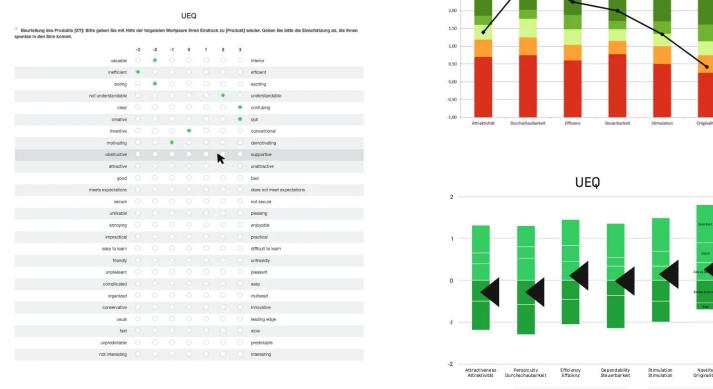
## Some User Voice Techniques

- **Conducting the interview vs scripting.** By focusing on the themes and hypotheses identified, while leaving room for free feedback from the participant.
- **Semi-directed interview.** The questions are open for discussion, although they are structured around predefined themes.
- **Consensus document.** The guide includes hypotheses to be validated, but is also an opportunity to ask the participant questions.
- **Framework for analysis.** The structure of the guide itself makes it easier to take notes and analyze after research.



Here we're talking about other methods of gathering user feedback, such as semi-structured interviews.

## Standardize Questionnaire



Source: UX Design – Three very good standardized UX surveys for industrial use  
Available at: <https://uxdesign.cc/three-very-good-standardized-ux-surveys-for-industrial-use-f8fie628d475>

Other methods of collecting user feedback like standardized questionnaires.

### UEQ

The **User Experience Questionnaire** is a well-known and widely discussed instrument. It measures six dimensions and is available in a long and short version. The dimensions are “Attractiveness”, “Perspicuity”, “Efficiency”, “Dependability”, “Stimulation” and “Novelty”. It contains 8 (short version) or 26 (long version) items as a semantic differential with a 7-point scale, so it has an adjective on the left and right side of each item. The result is a number between -3 and +3 for each of the six factors.

For every group, the arithmetic mean is calculated. The dimensions are evaluated against a large [benchmark from 486 studies](#). Translations into more than 30 languages are available and provided on the [UEQ website](#) (EN, DE, ES, PT, TR, ID, CN, FR, IT, JP, NL, RU, ES, SL, SW, PL, GR, IN, PE, BG, CZ, ML, TH, DN, BN, IS, TA, Arab, BS, KR, FN, HU, NO, SL) along with [online calculators](#) and [spreadsheet templates](#). A UEQ KPI extension and a modular extension [UEQ+](#) are available as well. The benchmark consists of deviations for every of the 6 dimensions along 5 adjectives (bad, below average, above average, good, excellent). The duration for completion is about 4 to 8 minutes.

## Card Sorting



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Here, we show other types of user feedback like card sorting.

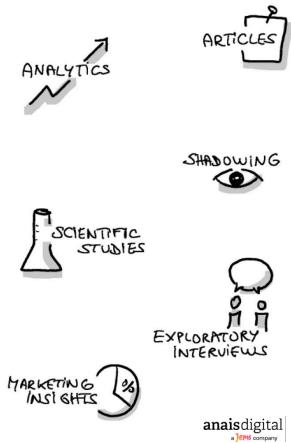
This slide illustrates different **Card Sorting** and **Information Architecture** exercises done during the UX process.

- On the top left, a **physical card sorting session** where participants group content into categories.
- On the bottom left, an example of a **digital card sorting tool (OptimalSort)**.
- On the right, we can see **Affinity Mapping** and **Workshop outputs** used to structure content and understand user needs.

These exercises were part of the **Understand & Plan phases** to help build a relevant content structure.

## Understanding your users

No matter where you start, always start by observing and describing what you know about your users.



Here, it is explained that, no matter the method we use, we always start by describing who the users are.

## User Needs Investigation Canvas

1. Topic What is the main focused problem?	2. Characteristics Who is the Persona?	3. Context Where and when is the Persona?		
6. Pain Points What does the Persona face achieve the goals?	4. Goals What does the Persona have to achieve?	7. Motivations What are the deep psychological needs of the Persona?	12. Value for Persona What are the pain relievers or gain creators for the Persona?	10. Solutions Features What are the functioning attributes of the product/service?
5. Actions How does the Persona achieve the goals?	8. Supporters Who/What contributes to helping the Persona today?	9. Alternatives What/who are the external existing solution to the problem?	11. Solution Obstacles What are the anxieties the Persona can feel regarding the solution?	

Canvas allows us to describe who the users are. We'll be doing exercises based on these canvases.

- **Topic**  
*Define the main problem or challenge the Persona is facing. It should be specific and focused on a concrete issue to investigate.*
- **Characteristics**  
*Describe who the Persona is: demographic information, behaviors, skills, limitations, attitudes, etc. Helps to contextualize their needs and constraints.*
- **Context**  
*Identify the circumstances in which the Persona encounters the problem: when, where, and in which situation(s) the issue occurs.*
- **Goals**  
*Clarify what the Persona is trying to achieve. These are their explicit objectives related to the problem.*
- **Actions**  
*List the steps or strategies the Persona currently uses to reach their goals, even if they are inefficient.*
- **Pain Points**

*Identify the main difficulties, frustrations, and obstacles the Persona experiences while trying to achieve their goals.*

- **Motivations**

*Describe the deep, sometimes unconscious, psychological needs or drivers that influence the Persona's behavior and choices.*

- **Supporters**

*Determine who or what helps the Persona today to overcome their difficulties. It can be people, tools, services, or resources.*

- **Alternatives**

*List external solutions or workarounds that the Persona may already use or consider to solve the problem.*

- **Solutions Features**

*Identify the key attributes and functionalities of the product/service that can respond to the Persona's needs.*

- **Solution Obstacles**

*Anticipate the anxieties, fears, or doubts the Persona may have about the solution you are proposing.*

- **Value for Persona**

*Explain what tangible and intangible benefits the solution will bring to the Persona. How will it relieve their pain points or create new value?*

## User Needs Investigation Canvas

1. Topic	2. Characteristics	3. Context		
Mobile community navigation.	Particularly for their holiday trips.	In his car, in an unknown place, ...		
6. Pain Points	4. Goals	7. Motivations	12. Value for Persona	10. Solutions Features
Encounter roadworks or traffic jams. Being stopped by the police. Take a difficult route. Arrive late. To get lost. Getting bored on the road. Network loss.	Arrive at your destination as quickly as possible. Discover routes. Enjoy the journey.	Competence - Efficiency. Security - Control.	Most reliable, community-based data. Free.	Existing Automatic data sharing. Manual warnings. Notification when to leave. Disruption notifications. Automatic route recalculation. Suggested discovery itinerary. Disruption notifications..
5. Actions	8. Supporters	9. Alternatives	11. Solution Obstacles	To be investigated
Identify a route. Stay informed of road disruptions.	Possible passengers. Other motorists. Road safety.	Paper map, radio. Built-in GPS. Google Maps.	Putting yourself in danger by checking your phone. Pay.	Notification when to leave.

This canvas is an example based on **Waze**, the mobile community-based navigation app. The investigation focuses on the specific user needs, pain points, motivations, and obstacles related to real-time navigation, particularly during holiday trips or in unfamiliar places.

## Exercise



### UNIC Canvas

- **Instructions:**

Fill in the UNIC Canvas based on a Persona related to the Do It Yourself context. Identify their needs, goals, obstacles, and possible solutions when doing a DIY project.

- **Time:** 15 minutes

- **Format:** Individual or small group work

In this exercise, participants will apply the UNIC Canvas to a specific context: **Do It Yourself (DIY)**.

They should imagine or choose a Persona who is engaged in a DIY project and reflect on their experience:

- What is their goal when starting a project?
- What difficulties do they encounter?
- What motivates them?
- What external help or solutions do they use?

This helps participants practice user need investigation in a concrete, everyday scenario.

At the end of the exercise, debrief by asking a few participants to share their canvas and highlight common patterns or surprising insights.



## 1. Prepare yourself and control your environment

5



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## Test plan

AUTHOR		CONTACT DETAILS		FINAL DATE FOR COMMENTS	
PRODUCT UNDER TEST What's being tested? What are the business and experience goals of the product?	TEST OBJECTIVES What is the goal of the usability test? What specific questions will be answered? What hypotheses will be tested?	PARTICIPANTS How many participants will be recruited? What are their key characteristics?	TEST TASKS What are the test tasks?	RESPONSIBILITIES Who is involved in the test and what are their responsibilities?	
BUSINESS CASE Why are we doing this test? What are the benefits? What are the risks of not testing?	EQUIPMENT What equipment is required? How will you record the data?			LOCATION & DATES Where and when will the test take place? When and how will the results be shared?	
PROCEDURE What are the main steps in the test procedure? 					

Medium

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This exercise aims to help participants structure a usability test by filling in each section of the canvas:

- **Prototype to test:** Clarify what will be tested (concept, product, service).
- **Strategy & Objectives:** Define the goals of the test and the risks if the test is not conducted.
- **Hypotheses:** List the hypotheses to be validated.
- **Scenarios & Tasks:** Design the user tasks and test scenarios.
- **Participants:** Define the user profile and the number of participants.
- **Equipment:** Identify the materials and tools needed.
- **Responsibilities:** Clarify the roles of each person involved in the test.
- **Location & Dates:** Define where and when the test will take place.

At the end of the exercise, participants should share their test plan with the group for discussion.

## Before testing! Heuristics [eu-ri-sti-k']

- From German, Latin and Greek "I find"
- "Discipline which aims to formulate the rules of scientific research" (Larousse)
- "The art of inventing, of making discoveries" (Littré)



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It is explained here that before conducting user tests, an audit phase will be carried out first because it is less expensive and allows basic problems that would disrupt the user tests to be solved.

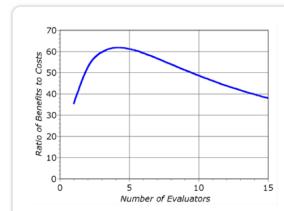
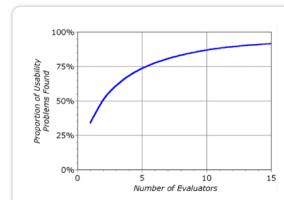
## Number of experts

### Internally

Give everyone the interface to evaluate with the same grid

### In agency

Either same as 1 or ask 1 or 2 other experts to go through the interface and give feedback.



[Nielsen Norman Group: UX Training, Consulting, & Research - NN/g](#)

With five evaluators auditing the digital project, we can address over 75% of the issues related to usability.

## Nielsen's Heuristics

- 1: Visibility of System Status
- 2: Match Between the System and the Real World
- 3: User Control and Freedom
- 4: Consistency and Standards
- 5: Error Prevention
- 6: Recognition Rather than Recall
- 7: Flexibility and Efficiency of Use
- 8: Aesthetic and Minimalist Design
- 9: Help Users Recognize, Diagnose, and Recover from Errors
- 10: Help and Documentation

Here we introduce Nielsen's heuristics. By checking these points, we'll be able to fix quite a few issues. <https://www.nngroup.com/articles/ten-usability-heuristics/>

## Exercise



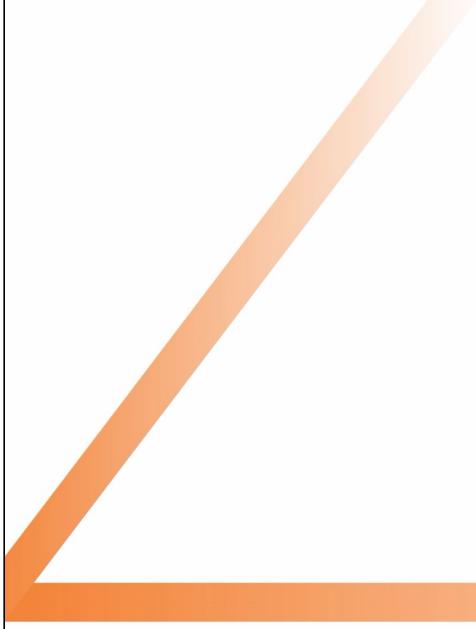
### Exercise time

Start your test plan from the left column

AUTHOR	CONTACT DETAILS	FINAL DATE FOR COMMENTS
<b>PRODUCT UNDER TEST</b> What does it do? What are the business and experience goals of the product?	<b>TEST OBJECTIVES</b> What are the goals of the usability test? What specific questions will be answered? What hypotheses will be tested?	
<b>BUSINESS CASE</b> Why are we doing this test? What are the benefits? What are the risks of not testing?	<b>PARTICIPANTS</b> How many participants will be recruited? What are their key characteristics?	<b>TEST TASKS</b> What are the test tasks?
	<b>EQUIPMENT</b> What equipment is required? How will you record the data?	<b>RESPONSIBILITIES</b> Who is involved in the test and what are their responsibilities?
<b>PROCEDURE</b> What are the main steps in the test procedure?		<b>LOCATION &amp; DATES</b> Where and when will the test take place? When and how will the results be shared?

The Usability Test Plan Dashboard is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License. Attribution: www.usabils.co.uk/dashboard

As an exercise, learners are asked to fill in the first two boxes on the far left.  
Continuation of slide 18 (**Do It Yourself** context)



## Classic usability test



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## Recruiting the right users

- Typology: the typical user, the Persona, the key user
- 5 users = majority of ergonomic problems
- Better to have several sets of 5 users than 15 users at once
- Recruit, select, explain
- Incentive or not?
- Reuse the same users?

Before launching user tests, we of course need to recruit users. We rely on Personas, which is why we completed the uniC Canvas earlier.

## Recording

- **Caution:** In no case should the recording be perceived as intrusive. Have a GDPR charter signed
- **Recording Types:** Audio, video, screen, eye-tracking, EEG, GSR, webcam, ...
- **Isolated element bias:** Watching a recording serves as an example, but should not lead to conclusions being drawn too quickly.
- **You have to see it to believe it:** Often your manager or colleague will need to see and hear the user to accept a fact.
- **Distance or recording:** Project leaders can either view the session remotely or afterwards. In any case, the goal is to observe, not to intervene.
- **Shared experience:** Thanks to recording, everyone can hear the same thing, without filters.

Recording is an important element for reviewing and analyzing the test in greater depth. Of course, this recording must be approved by the user.

## Tips and tricks

- **Measure:** Count the number of clicks, the time required, the number of items retained
- **Wait:** Plan breaks between tasks
- **Verbalize:** Encourage the user to explain what they are doing, why or why not
- **Listen:** Encourage the user to explain what they are doing, why or why not
- **Specify tasks:** Structure your interviews with activities (3 to 4).
- **To calm:** You test the interface, not the user. Tell him.
- **To call:** Start by setting the tone “imagine that...”
- **Provide the necessary context:** Enough to get started, but without guiding the user.

What to do during a user test? Measure as many things as possible. Give the user time. Ask them to think out loud. Listen to the user. Be very specific in the tasks. Calm the user. Provide them with context.

## Example – Classic User Tests



Here, we show the setup for classic tests. You see a laptop in the center that will be used by the participant. On the right, there's a laptop for the examiner along with an extra monitor. The extra monitor allows viewing what the participant is doing without having to lean over their screen. The examiner's laptop is for taking notes. Additionally, in this setup, there's a one-way mirror, meaning an invisible mirror behind which other observers are positioned.

# 10 Heuristics for Observing Behavioral Reactions



## Frowning

The user should always keep a relaxed facial expression without a frown, which is a sign of a necessity to concentrate, of perceived lack of clarity.

## Brow Raising

A user raising the brows is showing a sign of intensity or uncertainty.

## Gazing Away

The gazing away cue may be perceived as a sign of deception. It needs to be analyzed together with the test's other objective measures (time, errors, etc.).

## Smiling

A smile, or elevation of the cheeks, is a sign of satisfaction. The user may have encountered an element of joy during the evaluation process.

## Compressing the Lips

Seeing the user compress his or her lips should be perceived as a sign of frustration and confusion.



## Moving the Mouth

If the user is seen mouth gesturing or speaking to himself / herself, this is associated with a sign of being lost and uncertainty.

## Expressing Vocally

Vocal expressions such as sighs, gasps, coughs, as well as the volume of the expression, the tone or quality of the expression may be signs of frustration or deception.

## Hand Touching the Face

Elevating the hand that is placed on the mouse to the face is a sign of confusion and uncertainty, generally a sign of the user being lost or tired.

## Drawing Back on the Chair

The user may be experiencing negative or refusing emotions.

## Leaning Forward on the Trunk

Leaning forward and showing a sunken chest may be a sign of depression and frustration with the task at hand.

<https://www.scienceofpeople.com/>

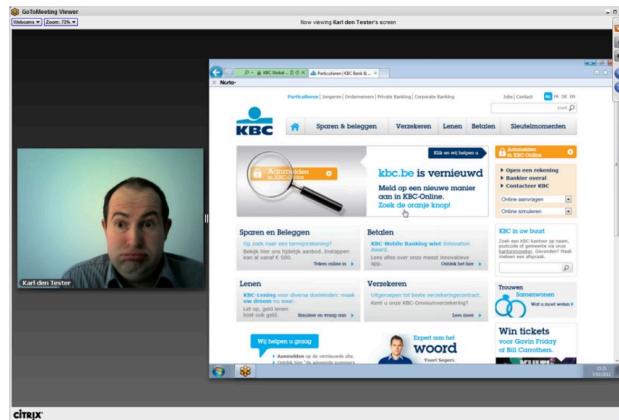
A chart for observing facial eyebrows is presented. The most important aspect is the frown, as it either indicates that the person doesn't understand or that they are very interested.

## Online test



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## Web Meeting, Teams, Google Meet, Zoom with screen sharing



This slide illustrates an example of a **remote usability test** conducted via a web meeting tool (Teams, Zoom, Google Meet, etc.) with **screen sharing and webcam**. This setup allows participants to perform tasks on their own device while the facilitator observes both the screen and the participant's facial expressions and body language through the webcam.

The webcam is important because it helps:

- **Capture non-verbal reactions** (confusion, frustration, satisfaction).
- **Create a more natural and human interaction** despite the distance.
- **Identify moments of hesitation or discomfort** that might not be visible through screen sharing alone.

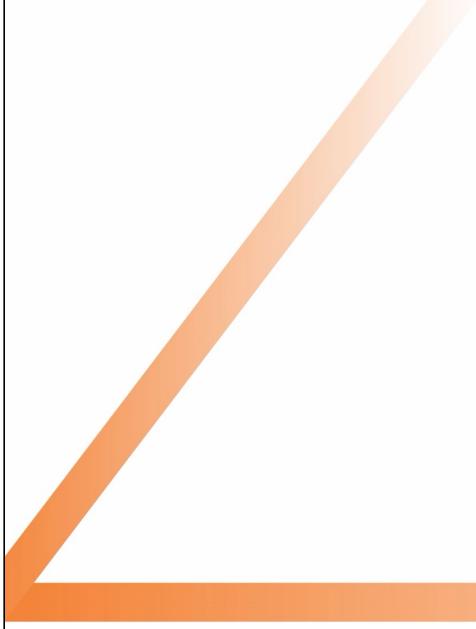
Remote testing is useful when participants are geographically dispersed or when in-person testing is not possible.

## Online user testing: validately, maze, surveymonkey, loop11

The screenshot shows the Validately platform interface. At the top, there's a blue header bar with the 'VALIDATELY' logo and a user profile for 'Alexander'. Below the header, a dropdown menu is open, showing 'Workspace 1'. Underneath, there are three study samples displayed:

- New Study**: A card with a '+ New Study' button, indicating a 'Free trial', '5 Unmoderated recordings remaining', and '5 Moderated recordings remaining'.
- Unmoderated Study Sample**: A card showing a screenshot of a Google search results page with the text 'unmoderated (9/9)' and a 'Completed' status.
- Moderated Study Sample**: A card showing a screenshot of a mobile device displaying a Google search results page with the text 'moderated (6)' and the 'anaisdigital' logo.

It is possible to conduct unmoderated online tests, meaning the user will perform tasks without an evaluator present. The advantage is that the user can take the test whenever they want.



# Guerrilla Testing

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## In guerrilla mode

- No prerequisites "Everyone" can do it!
- 15 minutes for the test
- 1 day of preparation
- 0.5 passing / 0.5 restitution
- Less complete than a classic test
- Coping with the vagaries of "real" life
- Easier on B2C than B2B



Jems

Guerrilla testing involves creating a brief test protocol and heading straight out to recruit users in the field. The main advantages are speed and low cost, but the downside is reduced precision.

## In guerrilla mode

### Guerilla User Testing in Brussels Sub



JEMS

Here's a sample photo from a guerrilla test conducted in the Brussels metro. We (Anaïs Digital – Jems) had an observer and an interviewer. The test lasted about 15 minutes.



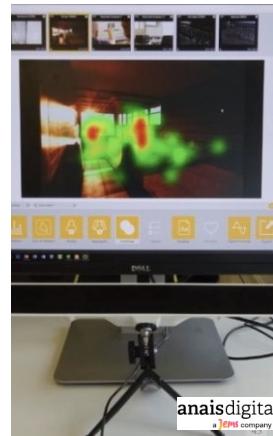
# Neurosciences



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## Biometrics – User Testing

- Eye Tracking
- Facial analysis
- Heart rate and skin conductance



The use of neuroscience in user testing adds a scientific perspective to the tests. Various tracking techniques are employed, such as eye tracking, facial analysis, skin conductance, and heart rate. All this biometric information tells us about emotional intensity, gaze at the screen, and more.

# Biometrics – User Testing

## Fixations and jerks

These are the two observations made by the eye-tracker: what does the user focus on and how do his eyes move?



Looking straight  
at the camera

Looking down and to  
the right of the camera

Looking directly  
above the camera

<https://medium.com/usabilityweek/eye-tracking-what-is-it-for-and-when-to-use-it-e54d497e5a48>

## Order, object, time, quantity

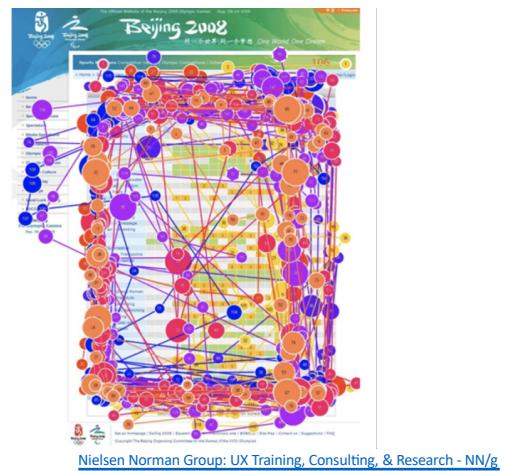
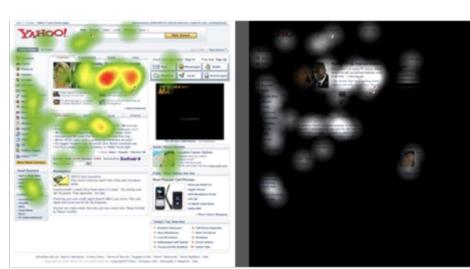
Are the values recorded by the eye-tracker to determine heat maps and paths.

## Eye-tracker

This is the non-intrusive tool used to observe eye movement on the screen.

Eye tracking is commonly used in user testing. It allows us to objectively analyze where the user focuses on the screen and identify the areas that are most viewed versus those that are overlooked. It also enables tracking the path of the eye across the screen.

## Eye-tracking: Examples



Here are examples of eye tracking, visible areas, and eye movement paths across the screen.

## Eye-tracking: Examples

### Observing the unobservable

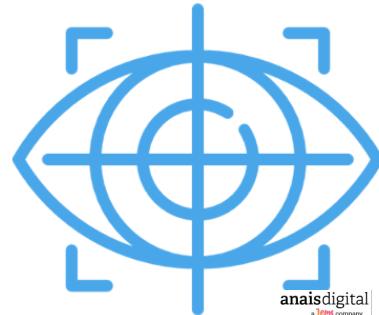
During a user test, users explain what they are doing, but are not always fully aware of it.

### Quantify

With heat maps, we can give weight to the fixations, to the most traveled paths.,

### Convince

This objective measure is a strong argument for strategic decisions on screens. It is also a visual way of presenting information.

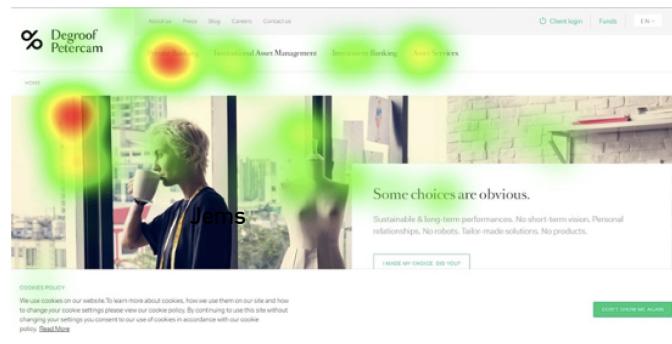


### Eye-tracking helps analyze:

- Why participants struggled to complete a task.
- Where participants expected to find certain elements.
- Whether participants noticed a particular element—such as a link, button, advertisement, or newly added UI feature.
- Whether certain elements are distracting in a negative way.
- How effectively a design guides participants in completing their tasks.
- If there are differences in task performance between user groups (e.g., new vs. experienced users).
- What content participants read (articles, instructions, contextual help, error messages).
- How participants process information—by reading details or scanning.
- Whether a specific design is more effective than another in terms of user experience or business objectives.

## The Faces: Eye-tracking

- The role of mirror neurons
- Empathy
- Online trust



Light tracking can highlight the areas viewed by the user. In this example, we see the importance of mirror neurons. The user's gaze mimics the gaze of the person in the illustration. The illustration should be flipped to guide the user's gaze towards the text and the main message.

## Exercise



### Exercise time

Fill in the center and right columns

AUTHOR	CONTACT DETAILS	FINAL DATE FOR COMMENTS
<b>PRODUCT UNDER TEST</b> What does it do? What are the business and experience goals of the product?	<b>TEST OBJECTIVES</b> What are the goals of the usability test? What specific questions will be answered? What hypotheses will be tested?	<b>TEST TASKS</b> What are the test tasks?
<b>BUSINESS CASE</b> Why are we doing this test? What are the benefits? What are the risks of not testing?	<b>PARTICIPANTS</b> How many participants will be recruited? What are their key characteristics?	<b>RESPONSIBILITIES</b> Who is involved in the test and what are their responsibilities?
<b>PROCEDURE</b> What are the main steps in the test procedure?	<b>EQUIPMENT</b> What equipment is required? How will you record the data?	<b>LOCATION &amp; DATES</b> Where and when will the test take place? When and how will the results be shared?

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Medium

I ask the learners here to complete the middle column with the participants and equipment, as well as the far-right column with the responsibilities, locations, and dates. Continuation of slide 18 and 24 (**Do It Yourself** context)



## 2. Create your test protocol and follow it

5



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## Drafting the protocol



1. Test plan



2. Test Protocol



3. Dry run

In this section, we will finish completing the test plan, then draft the test protocol. We should end with a dry run, which means testing the protocol.



## The four main stages of a test

### 1. Introduction

Provide context to the participant  
Explain how the interview will take place  
Collect demographic data

### 2. Scenarios

Tasks to be completed

### 3. Questionnaire

Administration of one or more standardized questionnaires

### 4. Debriefing

Questions to end the interview on the lived experience

Here, we present the four main stages of a user test. It begins with an introduction, followed by the user executing test scenarios. Then, a standardized questionnaire is used, and finally, we debrief with the user about how the test went.

## Introduction

- Reassure the participant about the progress
- Explain that there is no right or wrong answer
- It is the system that is tested, not the user

The purpose of the introduction in a user test is to reassure the participant, explain how the process will unfold, and remind them that it's the system being tested, not the user.

## Introduction

- Welcome – Provide a warm welcome (drink), explain the incentive (if present) after the discussion.
- Researchers – Ideally an observer who takes notes and a person who asks questions.
- Place – Choose a comfortable location, avoiding distractions
- Note taking – Print the discussion guide and prepare a note-taking structure.

We're setting everything up so the test goes as naturally as possible.

## Introduction

- Example

Good morning,

We are currently conducting a study in the field of [domain]. We have created a solution in the form of a prototype that we would like to test. This is the prototype that I will present to you today.

First, I'm going to ask you some general questions. Then you will have the opportunity to interact with the application. I will ask you to complete a few tasks. After each task, we will have the opportunity to debrief.

This is really the prototype we are testing today, not you. So don't hesitate to be critical.  
Your feedback is really important to us.

If you agree, we will record the session. This allows us to review the tests and analyze the results (have the registration agreement sheet signed).

Here's an example of an introduction one might use for a user test.

## Scenarios

A scenario is the heart of the test protocol. This is a detailed description of the tasks that users need to accomplish.

Scenarios should be written according to the test plan, the objective being to ensure that the results meet the assumptions set beforehand.

### A main objective

Determine the goal the user needs to achieve. The objective should be directly related to the hypotheses you want to test (in the test plan).

(eg perform action X, find information Y).

### The context

Provides the context necessary for the user to understand the situation they are in, including available information and starting point.

The context helps to make the scenario more realistic and to better understand the user's needs.

Next, we move on to the task scenario that the user will need to complete.

## Scenarios

### Logical order of scenarios

Follow the order of the scenarios should reflect the journey of a real user. For example, if we want to check that a user can request a document and download it, we will do it in this order (and not separately). This helps to detect potential obstacles throughout the process.

### The criteria for a good script

Clear and concise: Easy for everyone to understand.  
Realistic: Reflects the behaviors and expectations of real users.  
Flexible: Takes into account different possible paths.  
Measurable: Allows you to collect qualitative data.

Next, we move on to the task scenario that the user will need to complete.

## Scenarios

### Use the user's language

Use the same vocabulary as your participants so that they can easily understand your questions. Avoid using technical terms or jargon if you don't need to.

### Be specific in your instructions

Specific tasks help to obtain clear and actionable information.  
Be careful not to give the expected solution or action.

### Ask open-ended questions

Encourage detailed responses rather than simple "yes" or "no."  
Do not hesitate to contact the user again when he seems to be having difficulties, or when he does not provide enough information.

### Non-leading questions

Let your participants express themselves freely without influencing them. Avoiding leading questions ensures the objectivity of the answers.

Here are some tips and tricks for writing relevant scripts.

## Scenarios

**It is essential to first observe the user completing the given scenario alone, taking notes on his behavior and difficulties.**

**Ask questions to clarify his actions and gather his impressions:**

After each scenario: Ask specific questions related to what you just observed.

Review any obstacles or positive points the user encountered during the scenario.

These questions are part of the protocol and are defined in advance.

Example of clarification questions:

"Could you explain to me why you chose to click on this button?"

"What did you think of this stage?"

Of course, we make sure that beyond just carrying out the scenario, we take note of the entire test environment, non-verbal observations, and so on.

## Scenarios examples

### Task 1:

You have just moved into a new apartment as a tenant. You want to replace some old furniture and give your home a new look. But you don't have enough savings for your project... You are missing €4,700.

On the bank's website, you look for a loan suitable for this type of expenditure.

### Task 2:

You are considering investing savings in an investment fund. To receive personalized advice, you want to meet an advisor in an agency.

Find the bank branch closest to your home or workplace.

Here are two example scenarios.

## Scenarios

- 5 sec test
- Show a user screen for 5 seconds.
- Then, he's asked what he's noticed in terms of words, messages, colors, images, and structures.
- This allows for defining the first impression.
- Conduct a five-second test in pairs in the class, using the interface of your choice.



We can also use specific scenarios like the five-second test. to be done in class.  
Choose a user screen you want, show it for 5 seconds to your classmate.

## **Questionnaire**

- Using a standardized questionnaire to assess user experience

Ask the students what information it will contain

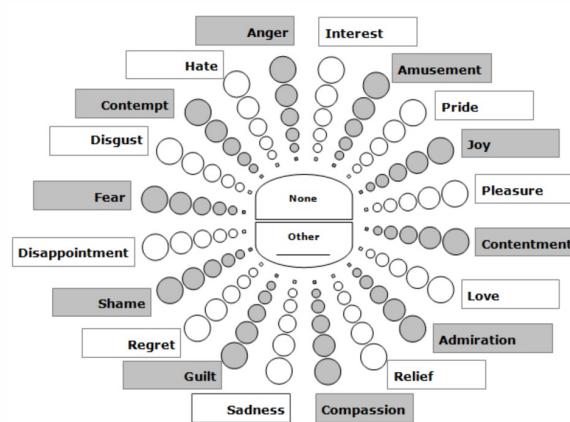
## User Experience Questionnaire

Negative	1	2	3	4	5	6	7	Positive
obstructive								supportive
complicated								easy
inefficient								efficient
confusing								clear
boring								exciting
not interesting								interesting
conventional								inventive
usual								leading edge

<https://www.ueq-online.org/>

Here is the User Experience Questionnaire. This standardized questionnaire is available in several languages. It allows for the objectification and quantification of the user experience.

## Geneva Emotion Wheel



The Geneva Emotional Wheel (ver. 3) [42]

Here we present Geneva's wheel of emotions. It's a standardized tool that allows participants in a user test to assess their emotions.

## Debriefing

This part is essential to close the test in a positive way and gather additional information.

### Conclusion and General Feedback

Using the closing questions, ask the participant to give overall feedback on the test, going back over the positive and negative points.

### Participant Questions

Allow time for the participant to ask all their questions.  
Be honest and transparent in your answers.

"Do you have any questions for us?"

### Thanks and incentive

Thank the participant and offer them compensation (goodies, voucher).

The debriefing after user scenarios is a crucial moment to gather final insights, see if the test went smoothly, and of course, to thank the participants and explain how they will be compensated.

## Debriefing

- How much did you enjoy this App? (on a scale of 1 to 5)
- What did you like most about your experience with this App? For what?
- What did you like least about your experience with this App? For what?
- Were there any things that surprised you? Are there things you expected that you didn't find?
- How could we improve your experience on this App?
- What do you think about this way of approaching this problem?
- How much would you recommend this platform? For what? (from not at all to completely)
- Do you think this product will help you? For what?
- Do you think you can trust this product? For what?
- Other comments

Here is a series of questions that can be asked during debriefing, at the end of the user test.

## Dry Run

A dress rehearsal before the big day allows us to refine the protocol and ensure that everything will go as planned.

### Teamwork

Try your test protocol on a colleague who is not involved in the project.

### Estimate the time needed

Make sure the time allowed is sufficient. Otherwise, make choices based on the topics you have prioritized.

### Proofreading

Check whether the scenarios, tasks and questions are clear and understandable.

### Hardware check

Make sure that the necessary equipment is working properly: computer, printer, as well as the route to be tested.

Before conducting user tests with actual users, it's recommended to do a dry run, which means running a trial test with a colleague, for instance.

## Exercise



### Exercise time

Write scenarios, tasks and procedures.  
Your plan should be complete now

Additional resources :

<https://digital.gov/resources/digitalgov-user-experience-resources/digitalgov-user-experience-program-usability-starter-kit/>

AUTHOR	CONTACT DETAILS	FINAL DATE FOR COMMENTS
PRODUCT UNDER TEST What does it do? What are the business and experience goals of the product?	TEST OBJECTIVES What are the goals of the usability test? What specific questions will be answered? What hypothesis will be tested?	TEST TASKS What are the test tasks?
BUSINESS CASE Why are we doing this test? What are the benefits? What are the risks of not testing?	PARTICIPANTS How many participants will be recruited? What are their key characteristics?	RESPONSIBILITIES Who is involved in the test and what are their responsibilities?
EQUIPMENT What equipment is required? How will you record the data?	LOCATION & DATES Where and when will the test take place? When and how will the results be shared?	
PROCEDURE What are the main steps in the test procedure?		

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Medium

Ask the students to draft the scenarios, tasks, and finally the procedure so that the test plan is thoroughly complete. (I ask the learners here to complete the middle column with the participants and equipment, as well as the far-right column with the responsibilities, locations, and dates. Continuation of slide 18, 24 and 43 (**Do It Yourself context**)

Objective: Learn how to write relevant and realistic user test scenarios and tasks.

Instructions:

Based on your hypothesis and target user, write 1 or 2 test scenarios.

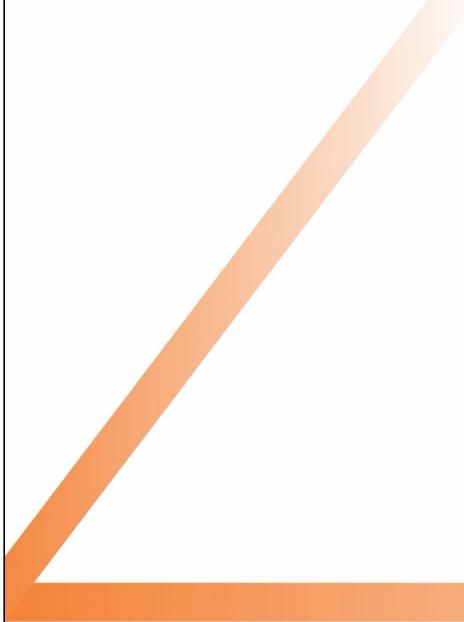
For each scenario, define 2 to 3 clear and measurable tasks the user must complete.

Make sure the tasks reflect realistic user goals.

Notes for the trainer :

Encourage participants to be concrete and precise when writing scenarios. The tasks should allow them to observe behaviors and identify usability issues.





### 3. Analyze

5



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We're already talking about the analysis here, before the test has been conducted, so that the learners can anticipate and see what information they'll need to gather.

## Taking effective notes

### Segment

Using themes (needs interviews)

### Use codes

Quote to remember, problems,  
solutions, expectations, tasks,  
behaviors, ...

### New hypotheses

Identify new questions or hypotheses  
for the next participant to test.

It's indeed crucial to take accurate notes during the user test. We try to segment things, add tags, and also see if any new hypotheses emerge.

## Using a tool like Airtable...

User	Today date	Ma...	L...	Fréquence d'utilisation	Where	Today scenario	Notes	Issues
14 15	13/11/2019 09:40	Light	FR	Less than 1x / 2 months	Schuman	Recharger une MOBIB basique Consulter son solde	None	Allez vers l'ancienne machine après avoir vérifier facilement le nombre de titres
15 16	13/11/2019 15:37	Full	FR	Less than 1x / 2 months	Schuman	Achat d'un titre 10 voyages	Sélection de la langue avant Essai de cliquer sur les icônes Carte invalide n'a pas d'info sur quel faire	Voir et comprendre le tooltip sur l'écran Ne pas savoir comment poser sa carte Sélectionner la langue avant de poser Voir "Carte invalide" à l'écran, sans autre info Taper sur le choix de droite sans avoir abandonné le processus faute de connaitre des tickets de trains
16 17	13/11/2019 15:48	Full	EN	Less than 1x / 2 months	Schuman	Acheter un ticket de train	Ne sait pas quoi faire, est bloqué sur la nouvelle machine et va vers l'ancienne.	Abandonner le processus faute de connaitre des tickets de trains

14	15	16	17
15 16	16 17	17 18	18 19
16 17	17 18	18 19	19 20
17 18	18 19	19 20	20 21

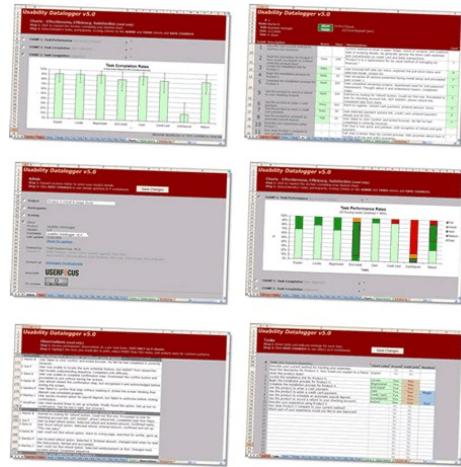
anaisdigital  
jfd company

To take effective notes, tools like Airtable can be used.

or just Excel.

<https://www.userfocus.co.uk/resources/datalogger.html>

<https://digital.gov/resources/digitalgov-user-experience-resources/digitalgov-user-experience-program-usability-starter-kit/>



<https://www.userfocus.co.uk>

We can also use User Focus tools with Excel, which are extremely powerful. They are also free. <https://www.userfocus.co.uk/resources/datalogger.html>

## Exercise



### Exercise time

Conduct a test and use excel datalogger

Additional resources :

<https://digital.gov/resources/digitalgov-user-experience-resources/digitalgov-user-experience-program-usability-starter-kit/>



**Objective:** Practice conducting a short user test and analyzing the results.

**Instructions:**

- Pair up with another participant. One will play the role of the user, the other the observer.
- Choose one of your scenarios and conduct a short test (5-10 minutes).
- Take notes about difficulties, behaviors, positive/negative reactions.
- Switch roles and repeat.
- Analyze together the key findings and pain points observed.

**Notes for the trainer :**

This is a simplified, informal exercise. The goal is to experience the dynamics of a user test and practice observation and note-taking.

# Analyze

- Look for global trends
- Analyze the questionnaires
- Observe the frequency, recurrence and impact of problems on each screen and in the flow (time, errors, clicks, etc.)
- Identify wording problems: misunderstanding, reformulation
- Identify the positive aspects to keep
- Formulate recommendations
- Define the next steps of the project (iteration, new, tests, etc.)

## Usability Testing Issue Grid

Issue	Reach	Severity
Keyboard hides "Save" button on CC entry	100%	4
Http://Add to cart button is not visible	100%	4
After sign-out, doesn't know how long delivery will take	100%	4
Tries to click non-functioning size dropdown	100%	2
Use Discover for non-specific item (wine)	100%	1
Use search for specific items	100%	1
Finds what easily	100%	0
Finishes "Find" button/hears easily	80%	1
Irritated by lack of "next" button in forms	60%	3
Expects to find favorites within hamburger menu	60%	2
Struggles to find an item	60%	3
Expects to find in hamburger menu	60%	2
Imagery in Discover section useful	60%	0
Wants to be able to filter within categories	40%	2
Surprised by results by press search	40%	3
Confirms what he/she sees, not 100% certain	40%	2
Hamburger menu in odd spot	40%	2
Curated collections (Discovery) is too prominent	40%	2
Searches in wrong category	40%	2
Navigation sub-headings within category	40%	2
Sign up start is too much	20%	3
In-field labels problematic	20%	3
If adding product to cart without login, product is lost after login	20%	3
Sign in indicator while processing order is problematic	20%	3
Lack of clear result between tabs causes problem	20%	3
Chat is unclear	20%	2
"See More" on product page is annoying	20%	2

Severity Scale
0-1 Positive
1-2 Indifferent
3-4 Moderate
5-6 Annoying
7-8 Significant
9-10 Critical

Mark Montri

## How to simply analyze ?

Look for global trends

Analyze the questionnaires

Observe the frequency, recurrence and impact of problems on each screen and in the flow (time, errors, clicks, etc.)

Identify wording problems: misunderstanding, reformulation

Identify the positive aspects to keep

Formulate recommendations

Define the next steps of the project (iteration, new, tests, etc.)

<https://digital.gov/resources/digitalgov-user-experience-resources/digitalgov-user-experience-program-usability-starter-kit/>

## Exercise



### Exercise time

Perform the analysis

Additional resources :

<https://digital.gov/resources/digitalgov-user-experience-resources/digitalgov-user-experience-program-usability-starter-kit/>



Analyze together the key findings and pain points observed.



## 4. Make a report

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## Consider the audience for your results

M

### Memorable

Use stories, comparisons, anecdotes and visuals to reinforce results.

T

### Transferable

Subdivide the results (by theme, by screen, etc.)

A

### Actionable

The results should be used to make decisions (either find a solution or improve a screen, etc.)

A

### Accessible

The search results must be able to be read and reread by the people concerned.

Think about who is going to receive your usability test report: developers, marketers, C-levels ?

Who will receive the results? A designer? A developer? An entrepreneur? A senior manager of a bank?

What is the level of affinity with the subject studied?

What is their level of involvement in the project?

What level of detail do they need?

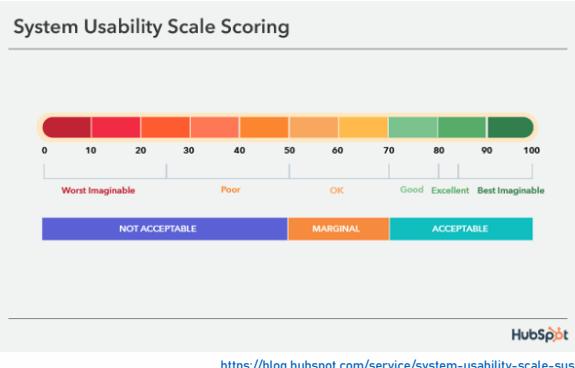
## Example of a “ready-made” report

- Using Tools like Make Design to automate the maximum of usability testing tasks.
- <https://app.maze.co/report/Accommodation-Platform-User-Research-Report/ef2h9tlyqag18/intro/demo>



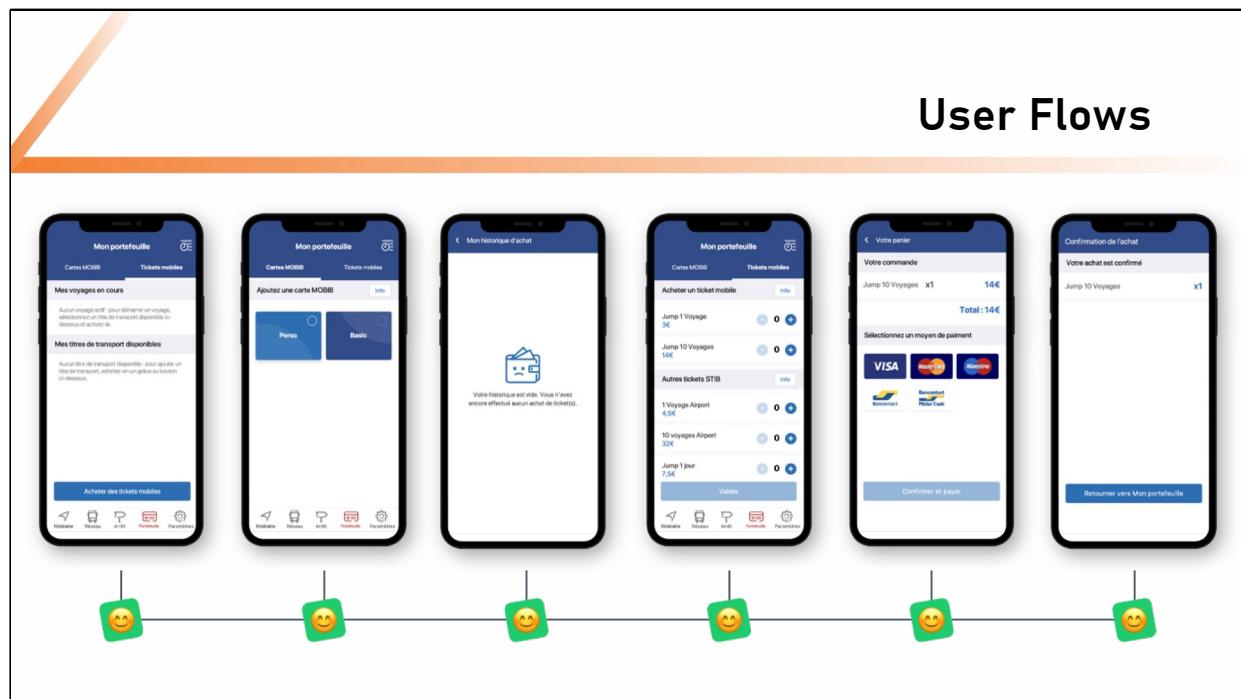
This an example created on Maze Platform.

## Standardized questionnaire



Add the results of your standardized questionnaire (UEQ, SUS, UMUX, ...) in your report.

## User Flows



Showing visually success and fails, like this user fails, helps to directly identify pain points

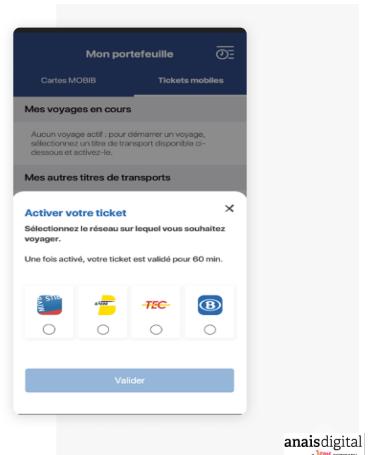
## Example : Recommendation on “Activate your ticket”

### Observation

- The text is scanned diagonally
- This action is seen as immutable for the current ticket
- Many users do not associate “activation” and “validation”
- When they later recall this action, it is associated with the purchase of the ticket rather than its validation.

### Recommendation

- Refocus on the fact that this action validates the ticket rather than the intermodal aspect - the combination of the two is not understood



This a standard detailed slide about usability issues. It includes what we observed during the test and what we recommend.

## Example : Commented screens

### Description

The phrase related to the image and the examples in the search bar brings a lot of confusion to many users, even a feeling of "aggression" that surprises negatively. Some people therefore think that they cannot look for a house.

### Recommendation

Show a more general sentence about the value proposition, as well as a photo less focused on a specific product.

Stay general, without focusing on a specific product, in the search bar.



This is another classic slide, but with eye tracking here to stress out the main issue.

## Exercise



### Exercise time

Write the report and present

Additional resources :

<https://digital.gov/resources/digitalgov-user-experience-resources/digitalgov-user-experience-program-usability-starter-kit/>



**Objective:** Summarize and present the results of your test in a clear and actionable way.

**Instructions:**

- Write a short test report including:
- The tested hypothesis
- Who was tested (profile)
- The main findings (pain points, positive points)
- Your recommendations
- Prepare a 3-minute oral presentation to share your results with the group.

**Notes for the trainer :**

**Encourage participants to keep the report concise and to focus on the most important findings and actionable recommendations.**

## What you need to remember – User Testing

User testing is the ultimate method for understanding usage in depth and improving your product through qualitative feedback.

- Conducting effective user testing requires preparation and control of your environment.
- Conducting a user test means following a test protocol.
- User test analysis focuses on recommendation

Key lessons from this course

## **What you need to remember – User Testing**

### **5 mistakes to avoid**

1. Not having a test plan
2. Recruiting the wrong participants
3. Not testing early enough
4. Including too much information
5. Test to confirm your own ideas

Key lessons from this course

## Summary



You've just completed a key step in becoming a thoughtful and effective UX designer.

In this lesson, we explored how User Research helps you deeply understand your users — their needs, goals, frustrations, and behaviors.

You learned how to ask the right questions, choose the right research methods, and extract meaningful insights from your findings.

We also dived into Usability Testing, where you observed how real users interact with your designs. You learned how to test early, test often, and iterate based on real feedback — not assumptions.

Together, these skills ensure that your designs are not only beautiful, but useful, usable, and grounded in real-world needs.

Keep putting users first. It's the heart of great UX.

- Evolution of heuristic inspection: towards an integration of accessibility, practicality, emotion and persuasion criteria in ergonomic evaluation (Brangier et al., 2015)
- Introducing Usability Heuristics for Mobile Map Applications (Kuparinem, 2013)
- Appropriating and Assessing Heuristics for Mobile Computing (Bertini et al. )
- A Set Of Heuristics for User Experience Evaluation in E-commerce Websites (Bonastre & Granollers)
- Heuristic evaluation for e-Government websites in Saudi Arabia (Eidaroos & al.)



- 10 heuristics for an Optimal User Experience (Colombo & Pasch)
- The evolution of the ergonomics of computer products: accessibility, usability, emotionality and influenceability (Brangier & Bastien)
- Development of an analysis grid of persuasive aspects in computer ergonomics (Nemory, Brangier, Kopp)
- Development, validation and application of the interactive persuasion criteria grid (Nemory)
- <http://ergoweb.ca/criteres/>

## ADDITIONAL READING



- <https://digital.gov/resources/digitalgov-user-experience-resources/digitalgov-user-experience-program-usability-starter-kit/>
- [Usability test software tool: Excel data logger](#)
- [Body Language: Understanding Nonverbal Communication | Science of People](#)