

EVALUATION TECHNIQUES AND USABILITY TESTING

Theme II – Usability Testing Study

(3rd Part – Sharping the Test Plan)

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Contenido

- ◉ Technique definition
- ◉ Test typologies
- ◉ More common protocols
- ◉ Usability laboratories
- ◉ **Test Plan design and elaboration**
 - > Overview
 - > Main structure and documents associated
 - > **More other aspects to be considered**

Test Plan – Documents to prepare

▫ Test Plan main document structure:

- Product definition
- Purpose and test objectives
 - Test type
- Product state and problems in which to incise
- **Target audience, user profile and target user sample definition**
- Participants recruitment process
- Methodology
 - Procedure and protocol
 - Number of participants
 - **Description of the tasks to be evaluated**
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- List of complementary documents

Test Plan – Targeting participants



Establishing the user profiles

Use three levels of discrimination:

Lv-1. Screen) **Determine** the **target audience** (population sector or potential customer segment) to whom the product is addressed, according to the product's **interest area**

- *Generalist or specialized product ?*
- Which **requirements** must satisfy the user ? (**discarding** and **non-discarding** features)
 - Ex: gender is a discarding feature if the product is only addressed to men
 - Ex: technological skills is discarding if the product is only addressed to internet expert users
 - Ex: usually use or not the public transport is a discarding feature [TMB Mobile]

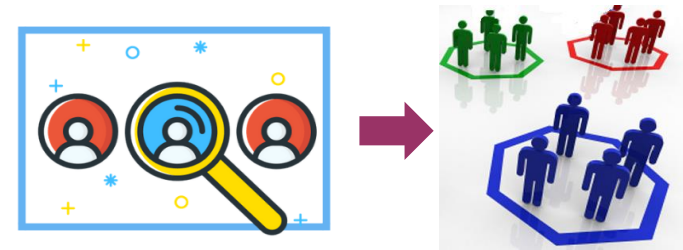
GOAL → **Filter non-potential users** for doing the screening

- RESULTS:** - All the **discarding** circumstances (characteristics, requirements to be fulfilled) are **defined**
- How to detect them are also established → **screeener form**

Test Plan – Targeting participants

Establishing the user profiles

Use three levels of discrimination:



Lv-2. Classify) Identify different **user profile/s** (group/s of users) **within** the target audience

User profile = *archetype/stereotype that meets certain conditions, characteristics, qualities, abilities*

GOAL → Know better the target user
→ Focuss your study on specific groups of users

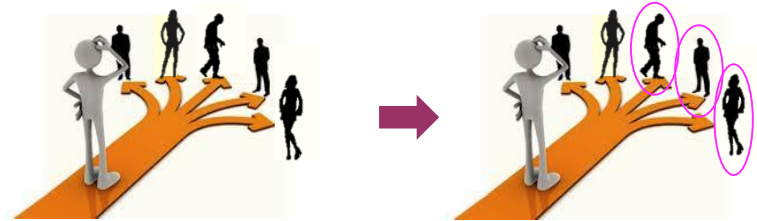
RESULTS: - **User profiles** (specific features and possible requirements for each group) are **defined**
- How to detect them are also stablished → **screener form**

RECommendations: - **Reach consensus with the client**, according to his/her interests
- **Justify** all your **decisions**
- Consider if applying **Personas method** would help team to better focus on final users and their needs, preventing designers from projecting their own needs and desires onto the project [MealpayPlus]

Test Plan – Targeting participants

Establishing the user profiles

Use three levels of discrimination:



Lv-3. Choose among candidates) Target the final **user sample** from all the candidates

The goal is helping you to **select**, among your candidates, **which ones to invite to the test**

GOAL: → **Discriminate** among candidates for doing the selection

→ Obtain **the most representative target user sample** to do the test

RESULTS:

- **Decide which** *user profiles* (one or more) will be invited to the test, and **justify** why
- **For each non-discarding feature** are set the different **ranges** (degrees), and **the proportion of participants** for each one (within each profile to which the test is focused)
- How to detect them are also established → **screener form**

RECommendations: - You need to make **the right balance** among the candidates

Typical ex. Gender. Paired (50% men, 50% women); not paired (another proportion)

Age. An ex: 1) from 25 to 58 (70%); 2) over 58 (30%)

Technological skills is also a typical ex. as long as it is a non-discarding feature for the target audience or the user profile definition

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Test Plan – *Participants recruitment process*

Users attraction, recruitment and Appointment

It can be done by **the own company** (e.g. company client BD), but another common option is to **outsource** this service (users recruitment company)

▫ **Clues for the recruitment process:**

Once reached consensus (client & team) about user profiles & target user sample:

- **Be creative** for doing the recruitment process (*eyetracking should be mentioned*)
- Formulate carefully the **screenner** (*especially if included eyetracking*)
- Initiate users attraction with enough **advance**
- Make a **regular tracking** during recruitment process
- Plan the availability of **reserve users** (*especially if included eyetracking*)
- **Do not fall into the temptation** to only recruit friends and colleagues
 - *Participants should not be familiar with the product*
 - *Participants should not know the test purpose and objectives*

Test Plan – Participants recruitment process

Users attraction, recruitment and **Appointment**

Once finalized the recruitment process & selected the candidates:

- **Establish the test calendar**
 - Make sure that the client will be also present in the test
- Send a **confirmation letter** (email) to selected people, together with the necessary instructions for their assistance
- Make **reminder calls**
- Organize some **refreshment, rewards** or **incentives** for participants
 - Depending on the user profile, the std. payment can be around **50-75 € per hour**

RECOMMENDATIONS for **User Recruitment** for the **real test**

(not for the ideal one to be defined in the Test Plan !)

- Focus on an **only APP user profile**
 - Considering different APP user profiles introduces some variations in the protocol to be carried out (even different tasks to be realized) and requires a bigger user sample size

Test Plan – Documents to prepare

Documents to prepare:

- Test Plan main document
- **Annexes:**
 - **– Screener**
 - Questionnaires and/or interviews
 - **List of scenarios for tasks**
 - Informed consent form about participation and recording session
 - **Test calendar**
 - Observation document
 - Test script for the moderator
 - Additional documents to be used in the test: briefing guide and checklist

Test Plan – Documents to prepare

Elaborating the Screener

Elaborate a **demographic form** to be used as a *'filter'* to appropriately **select** test candidates in the recruitment process: the **Screener**

Test candidates must **be representative enough**, according to the three levels of discrimination. Each candidate must fulfill one of the selected **user profiles** for the test

Lv-1. It must provide discarding options for discarding questions, helping to identify candidates that do not respond to required characteristics (outside target audience)

➤ They must appear as soon as possible, and indicated with **TERMINATE clauses**

Lv-2. It must be able to detect which user profile corresponds to candidates, including specific questions to identify it

Lv-3. It must present non-discarding features accordingly to their specific ranges of interest, in order to select the desired proportions for each one

RECommendations:

- Formulate **precise** and **easy to answer** questions

How many times have you been to the cinema in the past 30 days?

- Use **multiple choice** questions, and **check boxes** for answers (even for the age)

Additionally, the test day, user profile compliance will be again checked using a

Pre-test questionnaire

Test Plan – The Screener form

Elaborating the Screener

Demographical questionnaire for the test candidates **to figure out how suitable they are for your system and for the test**

Follow a **structure** similar to the following and **number** questions:

Start providing context on **the purpose of the questionnaire** and **briefing information** for sessions

A. General demographic questions [Compulsory]

1. **Gender** – In general, users sample must be balanced, but it is not always the case
2. **Age** – Depending on the cases, there is a major interest in certain age ranges. However, sometimes the interest can be focused on the whole population
3. **Technological skills:** Expertise in computer science or in the specific product environment (e.g. mobile usage), as well as internet usage experience
Sometimes, this characteristic constraints the target audience (discarding feature)
Don't ask for it expressly. Instead, try to figure out with appropriate questions

It is quite common that questions 2 & 3 act either as **discarding** features for target audience or as **critical feature** for defining user profiles, when they are **non-discarding** features

4. **Experience** in usability testing sessions

Opt) If your are planning using **eyetracking**, specific question have to be included

→ [eyetracking-methodology.pdf](#)

Test Plan – The Screener form

Elaborating the Screener

A.3. Technological skills on computer science (in general) / **Mobile, internet** (in particular) / **A specific environment** (if it is the case) [Adapt to your case]

Don't ask for it expressly. Instead, try to figure it out with appropriate questions !

- **Computer science abilities and habits** (in general)
 - Computer usage **dedication time**
 - » Months or years experience
 - » Number of daily hours employed, etc.
 - **Types of activities** or **tasks** usually realized with the computer
 - **Frequently used** applications
- **Internet and/or Mobile apps abilities and habits** (in particular)
 - Mobile/internet usage **dedication time**
 - **Types of activities** or **tasks** usually realized with the mobile/on internet
 - **Frequently used** webs/mobile apps
- *If it is the case*) **Technical skills in the specific environment** to be tested
 - Experience on videogames (e.g. Kinect, Wii, Xbox, video consoles, etc.)
 - Experience on an operating system, browser, device, specific platform, etc.

Due to the importance of this aspect, destine enough questions to identify this feature

Test Plan – The Screener form

Elaborating the Screener

B. Specific questions for target audience or user profile detection [Compulsory]

- **Direct questions** to **filter** if candidates 1) belongs to the target audience (according to the product's interest area) and 2) fulfils one of the user profiles selected for the test (according to the test interest objectives)
- **Destine a specific section** for them and present it **as soon as possible** in the form
- **Mark** expressly **discarding** questions and discarding answers (**TERMINATE clauses**)

Examples

- *Do you usually read books?* (if no, terminate) [Bookify]
- *Are you concerned about our planet's condition?* (terminate question) [Reciclame]
- *Do you usually use public transport in Barcelona?* (terminate question) [TMB Mobile]
- *Have you ever booked a hotel online?* (if no, terminate) [Holiday Inn]

Other examples [Include only if they are relevant for your target]

- **Job** (including student, retired or housewife) [Menuing]
- **Studies level** (education questions) [Bookify]
- **Language**, if relevant for the product
- **Economical factor** [MealpayPlus]

Household or individual income can be helpful in understanding purchasing power, market differentiation and other factors

Test Plan – The Screener form

Elaborating the Screener

C.Opt) Specific questions on user motivation *[Highly REC. Adapt to your case]*

- Focus on **user motivation** (to categorize people based on behavior)
 - Common questions:
 - **Familiarity** with the concrete **topic** or **area of interest** [Reciclame] [Bookify]
 - *How of important is the topic or area of interest for the user*
 - *How the user usually develops his/her interest on the main topic*
 - **Experience in using** other **similar products** to the one to be tested (in the same domain knowledge) [Bookify]
 - *Has the user utilized some similar product from the competence, or some previous version of the application to be tested ?*

Test Plan – The Screener form

Elaborating the Screener

D.The final section) Candidate contact information [Compulsory]

Some final RECommendations:

- **Include some arranging details** at the end
 - Test realization place, conditions and/or restrictions for the test
- **Take profit** to know about candidates **availability** in estimated dates for the test realization, and their **disposal** to test conditions
- **Order** among sections and questions is important. Although order presented here is orientative, *discarding questions must have primary importance !*

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Test Plan – Tasks to be evaluated

1. Selection of tasks to be solved by participants

Focus on those tasks that test potential usability issues or that tackle critical functionality aspects or tasks that have been difficult to design, if any

▫ REquirements to fulfill:

They must be

- **The most representative possible:** typical tasks for a common system usage. *Tasks for which the system is relevant !*
- **Specific and concrete:** focused on product concrete objectives, (e.g. *obtain a specific piece of information*) and aligned with the test objectives and purpose (*metrics or opinions we are interested to collect*)
- **Feasible and solvable in a reasonable duration.** Discard complex tasks
 - *Sometimes is recommended decompose some tasks in sub-tasks*

Test Plan – *Tasks to be evaluated*

2. Drafting the tasks to be solved by participants

▫ RECommendations in defining tasks:

- **For Formal tests)** Counterbalance the tasks presentation order to avoid the known “**learning effect**”
 - Users learn in a progressive manner the different aspects of the interface
 - Last realized tasks tend to benefit from the knowledge acquired, so that they can be realized more efficiently
- **Revise carefully** the **language** and **terminology** employed in the *scenario*
- **Test** the task **statement**

➔ **Frame tasks statements in a *Scenario* drafting**, which be close to the user and more engaging

You're planning a vacation to New York City, March 3 – 14. You need to buy both airfare and hotel ➔ Go to the jetBlue Airlines site and see which is the most economical option

Test Plan – Documents to prepare

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Test Plan – List of Scenarios for tasks

Scenarios for tasks

Scenario: A short story that **simulates a real situation** in which task is contextualized

They provide **realism** and **significance** to the task, as it gets framed in a **use context** *close to the user 'world' (a fake set of data)*

Characteristics that scenarios should fulfill (especially when eyetracking):

1. **Short:** must be **the most brief possible** (especially the 1st scenario)
2. **Direct and realistic:** must **utilize the user vocabulary**, not the product vocabulary

Task goal: *Browse product offers and purchase an item*

Bad task scenario: *Purchase a pair of running shoes*

Good task scenario: *You are planning to initiate running activities*
→ *Buy a pair of sports shoes for less than \$40*

Test Plan – List of Scenarios for tasks

Scenarios for tasks

Scenario: A short story that simulates a real situation in which task is contextualized

Characteristics that scenarios should fulfill (cont):

3. Concrete: must **provide a detailed goal**, *not a list of steps to be done !*

Provide **all the information needed** to complete a task, without telling how to do it

Task goal: Make an appointment with your dentist

Bad task scenario: Go to the website, sign in, and BlaBlaBla

Good task scenario: You are suffering toothache from a few days ago

→ Make an appointment for next Tuesday at 10 am with your dentist, Dr. Petersen

4. Unambiguous: must **describe clearly what is intended** to be realized with the task

- If the task scenario is too vague, the user will likely ask you for more information or to confirm that he/she is on the right path

Task goal: User registration in the flight reservation system X

Bad task scenario: You are considering to use the flight reservation system X

Good task scenario: You have just decided to make use of the flight reservation system X.

→ Register to it

Test Plan – *List of Scenarios for tasks*

Scenarios for tasks

Additional RECommendations:

- **Restrict the number of tasks** as much as possible !
- **Multimedia means to simulate particular situations can be used**
This should be detailed in the plan test
- **Relevance of the first scenario** (1st touchdown)
It must serve as 'warming' (short and simple). It is often designed to capture initial impressions

How do you want your users to first experience your product ?

What's the best starting point ?

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Test Plan – Test calendar

Test calendar

- **Prototype / product delivery** for the test
 - Drafting, track and revision of **tasks and scenarios**
 - Delivery, revision and **approval of the test plan** and complementary documents
- Dates to the **participants recruitment process**
 - **Pilot test**
 - **Concrete dates to carry out the test**
 - Date for the meeting with the client for **presenting and delivering the results report**