



Usability Tests

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Usability Test

Usability Test

- Στα user tests ή αλλιώς usability tests ή κατά βάση Human-Computer Interaction tests, εξετάζουμε σενάρια χρήσης από τον (ή τους) συμμετέχοντες και λαμβάνουμε **feedback** με βάση το οποίο ανασχεδιάζουμε τη διεπαφή μας ή την εφαρμογή μας
- Στόχος είναι να βρούμε προβλήματα ή να βρούμε νέες ευκαιρίες σχεδιασμού



- Τρία μέρη ενός usability test
 - Ερευνητής
 - Σενάριο
 - Συμμετέχοντες



Τύποι testing feedback

Usability Test

- Qualitative (Ποιοτικό)
 - Insights
 - Ελεύθερη συζήτηση / άποψη
- Quantitative (Ποσοτικό)
 - Επιτυχής ολοκλήρωση
 - Χρονική Διάρκεια
 - Ερωτηματολόγια (Likert Scale)



Τρόποι Testing

Usability Test

- **Απομακρυσμένα / moderated.**
Αλληλεπίδραση αλλά σε διαφορετικές φυσικές τοποθεσίες. Επικοινωνία μέσω skype και screen sharing
- **Απομακρυσμένα / non - moderated.**
Online Tools (π.χ. Usabilla)
- **In-person.** Σε lab



Usability Tests

Usability Test

- Επιλέξτε ένα χρήστη από κάθε **user persona group**. Αν έχουμε δύο personas, χρησιμοποιούμε δύο χρήστες, ένα από κάθε persona
- Δίνουμε ένα σενάριο
- Αξιολογούμε σε όρους που έχουμε θέσει
- Επανασχεδιάζουμε



First Click Test (1)

Usability Test

- Δώστε στους χρήστες σας κάποια σενάρια (πριν δουν το prototype)
- Χρησιμοποιήστε το journey map ώστε να χρησιμοποιήσετε ως σενάρια τους στόχους των υπηρεσιών σας
- Παραδείγματα
 - Παρακαλώ κάντε κλικ ώστε να μεταβείτε στην βασική εφαρμογή ανάγνωσης ειδήσεων
 - Θέλετε να αναζητήσετε βιβλία που θα σας ενδιέφεραν σύμφωνα με τις προτιμήσεις σας
 - Θέλετε να βρείτε ένα ξεναγό για την Αθήνα το μήνα Αύγουστο



First Click Test (2)

- Δώστε τους τη διεύθυνση της σελίδας σας
- Ζητήστε να διαμοιράσουν την οθόνη τους ώστε να βλέπετε τι κάνουν και ζητήστε τους να σκέφτονται φωναχτά
- Αξιολογήστε δύο μετρικές
 - Που έκανε ο χρήστης το 1^ο κλικ
 - Πόσο χρόνο του πήρε



Five Second Test (1)

Usability Test

- Οι επισκέπτες μιας σελίδας σε λίγα δευτερόλεπτα μπορούν να αξιολογήσουν μία σελίδα
- Επιδείξτε την Αρχική Σελίδα στους χρήστες για ~5 δευτερόλεπτα



Five Second Test (2)

Usability Test

- Κατάλαβαν την υπηρεσία ή το προϊόν?
- Αισθάνονται ότι θα λάβουν κάποιο όφελος από τη σελίδα ?
- Μπορούν να θυμηθούν το όνομα της σελίδας?



Five Second Test (3)

- Ζητήστε ένα μικρό free text feedback
- Αν πάνω από 80% των συμμετεχόντων απαντήσουν θετικά σε σχέση με το ερώτημα ή τα ερωτήματα τότε ο σχεδιασμός μπορεί να θεωρηθεί ικανοποιητικός
- Αλλιώς θα πρέπει να γίνουν βελτιώσεις



Design Surveying

Usability Test

- Το αντικείμενο του τεστ μένει ανοικτό μέχρι ο χρήστης να τελειώσουν την απάντηση των ερωτήσεων (και όχι σε 5 sec)
- Δεν υπάρχει πίεση χρόνου. Δεν είναι η εντύπωση και το recall ο στόχος



Στόχοι

Usability Test

- **Ελκυστικότητα** -- οπτικά στοιχεία
- **Απλότητα** -- Καθαρά και ευκολομνημόνευτα μηνύματα καθώς και λειτουργίες
- **Αποδοτικότητα** -- Επιτυχία και Χρόνος αλληλεπίδρασης
- **Αξιοπιστία** -- Μηνύματα λάθους / Εύρεση σωστών στοιχείων / Navigation
- **Προτρεψιμότητα** -- Συνέπεια σε σχέση με τους στόχους
- **Καινοτομία**



System Usability Test

Usability Test

System Usability Scale

Instructions: For each of the following statements, mark one box that best describes your reactions to the website *today*.

| | | Strongly Disagree | | | | Strongly Agree |
|-----|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | 1 | 2 | 3 | 4 | 5 |
| 1. | I think that I would like to use this website frequently. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. | I found this website unnecessarily complex. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. | I thought this website was easy to use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. | I think that I would need assistance to be able to use this website. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. | I found the various functions in this website were well integrated. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. | I thought there was too much inconsistency in this website. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. | I would imagine that most people would learn to use this website very quickly. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. | I found this website very cumbersome/awkward to use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. | I felt very confident using this website. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. | I needed to learn a lot of things before I could get going with this website. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



Usability & Learnability

Usability Test

- Το SUS Test παρέχει ένα global measure ικανοποίησης (User Experience) από τη χρήση του website μας και γενικότερα διαφόρων artifacts
- Οι ερωτήσεις 4 και 10 παρέχουν τη διάσταση του **Learnability** και οι υπόλοιπες 8 ερωτήσεις παρέχουν τη διάσταση του **Usability**



System Usability Test (1)

Usability Test

- X = Το άθροισμα των πόντων των περιπτώσεων-αριθμημένων ερωτήσεων – 5
- Y = 25 - το άθροισμα των πόντων των άρτιων ερωτήσεων
- $\text{Score} = (X + Y) * 2.5$



System Usability Test (2)

Usability Test

| SUS Score | Βαθμός | Κατάταξη |
|-----------|--------|--------------------|
| > 80.3 | A | Άριστος Σχεδιασμός |
| 68 – 80.3 | B | Καλός |
| 68 | C | Ικανοποιητικός |
| 51 – 68 | D | Φτωχός |
| < 51 | F | Απογοητευτικός |

Το Average SUS score σε 500 μελέτες ήταν 68. Οτιδήποτε πάνω από το 68 θεωρείται πάνω από τον μέσο όρο και οτιδήποτε κάτω από 68 είναι κάτω από τον μέσο όρο



Εφαρμογή – UX research Study Plan

Usability Test

UX Research Study — Plan Template

Introduction

- **Title:** Creating a virtual tour app for art galleries
- **Author:** , Developer, email: address@company.com
- **Stakeholders:** Art lovers, App's CEO and CFO
- **Date:** 25/02/2022
- **Project background:** We are creating the virtual tour app to attract and retain customers in our online system. Our competitors are very successful with many registrations. We want to create a product to compete in the market, satisfy art lovers and be famous.
- **Research goals:** We would like to help students, people with special needs and others that cannot afford a trip to the world's famous art galleries, explore art deeper.



Study Plan

Usability Test

Research questions

- How long does it take our users to sign up?
- How many have joined a virtual tour till the end?
- Are the customers satisfied by the prices and the credits?
- Is it easy or difficult to book a tour?
- Are there enough options and updated lists of art galleries?

Key Performance Indicators (KPIs)

- Time to sign up
- Conversion rates: how many tours users have purchased
- User error rates: how often users get stuck while on a tour
- System usability scale: a questionnaire to evaluate customer feedback

Methodology

- Unmoderated usability study
- Europe, remote (participants will go through the usability study in their homes)
- date: sessions will take place between March 1-15
- 7 participants will sign up and purchase a virtual tour through the app. Each of them will then complete a questionnaire on their experience
- Each session will last for 15-20 minutes

Participants

- Students, people with diverse abilities under a supervisor's help and older people, because they are the target and the main purpose in creating this app
- participants must resign in suburban areas and smaller cities and villages
- ages >14



Σενάριο Χρήσης

Usability Test

Script

- Prompt 1: From the home screen sign up and customize your profile
Follow up: does it take you much time?
- Prompt 2: Purchase a virtual tour
Follow up: How easy or difficult is it?
- Prompt 3: Join the tour
Follow up: Is the tour pleasant? Does it meet your expectations? Does it take you much time?
- Prompt 4: Follow your own route inside the gallery
Follow up: Do you hear the virtual guide's voice?
- Have the participants completed the System Usability Scale? Participants are asked to score the following 10 items with one of the five responses that range from "strongly agree" to "strongly disagree":
 - I think that I will use the app frequently
 - I found the app unnecessary complex
 - I think the app is easy to use
 - The app needs the support of an experienced user to be used
 - I think that the functions in the app are integrated
 - I believe there is much inconsistency in the app
 - People can learn the app very quickly
 - The app is very cumbersome to use
 - I feel very safe while using the app
 - I must learn many things before using the app
 - I find the payment system difficult to finish
 - I find the ordering process cumbersome



Usability Test Notes taking (1)

Usability Test

| Stella | | | | |
|---|--|--|---|---|
| Task | Click Path | Observations | Quotes | Task Completion |
| Write the task number and directions here. | Record what path the participant took to complete the task. | Note down behaviors, opinions, and attitudes along with any errors, issues, or areas of confusion. | Note any significant quotes (positive and negative). | Choose if the task was: 1 - easy to complete 2 - completed but with difficulty 3 - not completed |
| Prompt 1: Try to create a new account and log in. | Home page > Click the Logo on the top right corner | - Participant successfully completed - It was easy to go back to home page | "Very easy" "I am glad that I don't need to log in again" | 1 |
| Prompt 2: Book a virtual tour to an art galerie. | Home page > click on "Schedule a virtual tour" > fill in the form > click ok | - Participant found it super easy - They were satisfied that there was a verification screen with the option to edit their purchase | "Super easy" "I can confirm or not very easily" | 1 |
| Prompt 3: Confirm the tour and check the options. How do they look like? | Start the tour page > options: Start the tour, Download material, Back home | -They think it is easy but stressing with all these options -They like the "Recommended for you" section below -They wish the "Download material" could be omitted | "3 options in 'Start the tour' screen maybe is too much" | 1 |
| Prompt 4: Do not complete the virtual tour. How can you wrap up later? | Home page > My History > Not Finished tours | -They are not sure how to get there -They are confused if it is in "My favourites" or "My History" -They clicked "My History" first | "Mmm not very clear where to go." "I guess it is in 'My history'. Yeah, that seems correct " | 2 |
| Additional Notes: Add any notes about what the participant shares after the tasks are complete. | | | | |

- Τεκμηρίωση από το πεδίο έρευνας. Κρατάμε σημειώσεις
- Paint point. Unfinished tours / My History



Usability Test Notes taking (2)

Usability Test

| Nick | | | | |
|--|--|--|---|---|
| Task | Click Path | Observations | Quotes | Task Completion |
| Write the task number and directions here. | Record what path the participant took to complete the task. | Note down behaviors, opinions, and attitudes along with any errors, issues, or areas of confusion. | Note any significant quotes (positive and negative). | Choose if the task was: 1 - easy to complete 2 - completed but with difficulty 3 - not completed |
| Prompt 1: Try to create a new account and log in. | Home page > Click the Logo on the top right corner | -Completed the task easily | "ok. Piece of cake!" | 1 |
| Prompt 2: Book a virtual tour to an art gallery. | Home page > click on "Schedule a virtual tour" > fill in the form > click ok | -Prompt completed very fast -Participant is super familirized | "Oh such a simple form!" "I feel very comfortable with the verification screen" | 1 |
| Prompt 3: Confirm the tour and check the options. How do they look like? | Start the tour page > options: Start the tour, Download material, Back home | -Participant is a super user | "Oh, I love the option 'Download material'. Could be skipped though. Perhaps sending the material in user's email?" | 1 |
| Prompt 4: Do not complete the virtual tour. How can you wrap up later? | Home page > My History > Not Finished tours | -Participant clicks the correct button | "Someone could be confused here. Are the unfinished tours to the 'My favourites' also?" | 1 |

- Paint point για το My Favorites και το Download Material



Usability Test Notes taking (3)

Usability Test

| Joe | | | | |
|--|--|--|--|---|
| Task | Click Path | Observations | Quotes | Task Completion |
| Write the task number and directions here. | Record what path the participant took to complete the task. | Note down behaviors, opinions, and attitudes along with any errors, issues, or areas of confusion. | Note any significant quotes (positive and negative). | Choose if the task was: 1 - easy to complete 2 - completed but with difficulty 3 - not completed |
| Prompt 1: Try to create a new account and log in. | Home page > Click the Logo on the top right corner | -Participant clicks the logo item -Participant is not sure though | "I guess I click the logo" | 1 |
| Prompt 2: Book a virtual tour to an art gallery. | Home page > click on "Schedule a virtual tour" > fill in the form > click ok | -Participant does it easily | "Wow! easy staff!" | 1 |
| Prompt 3: Confirm the tour and check the options. How do they look like? | Start the tour page > options: Start the tour, Download material, Back home | -Participant finds it cool -They think is a simple screen like all the others | "Mmm, I love the recommended for you section!" "Can I see and return?" | 1 |
| Prompt 4: Do not complete the virtual tour. How can you wrap up later? | Home page > My History > Not Finished tours | -Participant is confused -Participant clicks "My favourites" | "Oh, wrong change. I should go back I guess" "Yeah, correct.. 'My history' button should be on top" | 2 |

- Paint point με unfinished και My History



Usability Test Notes taking (4)

Usability Test

| Stefan | | | | |
|--|--|---|---|---|
| Task | Click Path | Observations | Quotes | Task Completion |
| Write the task number and directions here. | Record what path the participant took to complete the task. | Note down behaviors, opinions, and attitudes along with any errors, issues, or areas of confusion. | Note any significant quotes (positive and negative). | Choose if the task was: 1 - easy to complete 2 - completed but with difficulty 3 - not completed |
| Prompt 1: Try to create a new account and log in. | Home page > Click the Logo on the top right corner | -Participant clicks the burger menu on the left -Does not know where to find it -Finally they click the logo but without confidence. | "Not at the menu? then where?" | 2 |
| Prompt 2: Book a virtual tour to an art gallery. | Home page > click on "Schedule a virtual tour" > fill in the form > click ok | -Participant does it easily -They spend much time to complete the purchase -Participant completes it, but takes much time -They wonder if their card will be saved | "Great, many options" "I am adding my card. Will it save my card?" | 2 |
| Prompt 3: Confirm the tour and check the options. How do they look like? | Start the tour page > options: Start the tour, Download material, Back home | -Participant can do this part easily -Participant likes the screen | "So easy to start my tour. Can I resume later?" | 1 |
| Prompt 4: Do not complete the virtual tour. How can you wrap up later? | Home page > My History > Not Finished tours | -Participant feels great because they wanted to resume the tour before the 4th prompt! -They find it difficult to find the correct option. | "Now I am impressed!" "Oh, My favourites or My history?" | 2 |

- Pain points. Save card και My Favorites / My History



Usability Test Notes taking (5)

Usability Test

| Jenna | | | | |
|--|--|---|---|---|
| Task | Click Path | Observations | Quotes | Task Completion |
| Write the task number and directions here. | Record what path the participant took to complete the task. | Note down behaviors, opinions, and attitudes along with any errors, issues, or areas of confusion. | Note any significant quotes (positive and negative). | Choose if the task was: 1 - easy to complete 2 - completed but with difficulty 3 - not completed |
| Prompt 1: Try to create a new account and log in. | Home page > Click the Logo on the top right corner | -Participant clicks the logo -Finishes sign in | "Cool!" | 1 |
| Prompt 2: Book a virtual tour to an art gallery. | Home page > click on "Schedule a virtual tour" > fill in the form > click ok | -Participant does it easily -Wants to avoid saving card's details | "Should it ask me whether to save card's details or not?" | 2 |
| Prompt 3: Confirm the tour and check the options. How do they look like? | Start the tour page > options: Start the tour, Download material, Back home | -Participant thinks that 'Download material is not necessary' -Participant does not want to start the tour by the time of purchase | "Should I start the tour right now?" | 1 |
| Prompt 4: Do not complete the virtual tour. How can you wrap up later? | Home page > My History > Not Finished tours | -Participant feels relief to resume the tour -They find the correct option easily | "Easy enough!" | 1 |



Affinity Diagram (1)

- Μπορούμε να αναλύσουμε τα pain points ανά άτομο
- Στη συνέχεια για κάθε pain point μπορούμε να αναζητήσουμε και να τεκμηριώσουμε με τα σχόλια κάθε εξεταζόμενου



Affinity Diagram (2)

Usability Test

Frame 1

Stella

Sl: Finds it unclear how to resume a tour

Sl: "Download material" option can be omitted

Nick

N: Believes that other users would be confused in how to resume a tour

N: He strongly believes that "Download material" could be sent in user's email instead

N: Could resume tour from "My favourites" option too

Joe

J: Could not find the resume tour path

Stefan

Sf: Wonders if his card number will be saved

Sf: Faces difficulties in finding the way to resume the tour

Jenna

Je: Wants to be asked whether her card details will be saved or not

Je: Needs details whether she can start her tour later



Affinity Diagram (3)

Usability Test

Frame 2

Resume a tour

Sl: Finds it unclear how to resume a tour

J: Could not find the resume tour path

Sf: Faces difficulties in finding the way to resume the tour

N: Believes that other users would be confused in how to resume a tour

Je: Needs details whether she can start her tour later

N: Could resume tour from "My favourites" option too

Save card's details

Je: Wants to be asked whether her card details will be saved or not

Sf: Wonders if his card number will be saved

Download material

N: He strongly believes that "Download material" could be sent in user's email instead

Sl: "Download material" option can be omitted



Insights

Usability Test

1. It was observed that 5 out of 5 participants had trouble finding how to resume a tour.
This means that resuming a tour is not obvious to be chosen even for experienced users.
2. It was observed that 1 out of 5 participants thinks that users could resume the tour from “My favourites option as well”.
This means that a user wants to resume tours super easily.
3. It was observed that 2 out of 5 participants wanted to know and choose whether their cards’ details will be saved in the app.
This means that for some users, this is a concern about their safety.
4. It was observed that 2 out of 5 participants do not find useful the “Download material” option in tour’s screen.
This means that “Download material does serve some users”.
5. It was observed that 1 out of 5 participants thinks it would be better to send the material in user’s email instead.
This means that “Download material” is somehow useful but not as an option inside the app.

- Συνοψίζουμε τα paint points και ερμηνεύουμε τι σημαίνει αυτό για τον ανασχεδιασμό της εφαρμογής μας
- Αυτό είναι το feedback (insights) στην τελική φάση



Υλοποίηση – Lean UX

Usability Test

- Μπορούμε στη συνέχεια να ανασχεδιάσουμε την εφαρμογή μας ώστε να περάσουμε μετά στην υλοποίηση του Front End
- Μπορούμε και κατά τη λειτουργία της εφαρμογής μας να μετράμε (Analytics) τη συμπεριφορά των χρηστών και να ανασχεδιάζουμε επιλεκτικά, μία αλλαγή τη φορά π.χ. αλλαγή wording στο μήνυμα και να ξαναμετράμε
- Η διαδικασία αυτή ονομάζεται Lean UX