# Usability Testing: Exercises

**Human Computer Interaction**

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# Goal

- Recognize good/bad tasks in a usability test plan
  - and know how to fix/improve them

- Draft a script for a sample usability test

# Recap: Usability Testing

- Goals
  - Identify problems in the design
  - Uncovering opportunities to improve
  - Learning about the target user's behavior and preferences

- Definition (by the Nielsen-Norman Group)
  - In a usability-testing session, a researcher (called a "*facilitator*" or a "moderator") asks a *participant* to perform *tasks*, usually using one or more specific user interfaces.
  - While the participant completes each task, the researcher observes the participant's behavior and listens for feedback.

# Recap: Phases of Usability Testing

1. **Plan**
   - who are your participants? what are you going to test, where, and how?

2. **Run**
   - one participant at time, multiple sessions
   - collect data about the interactive system/interface

3. **Analyze**
   - extract information from the collected data, both qualitative and quantitative

# Recap: Tasks

- Define tasks according to the main goals that target users may have on your system

- Rather than simply ordering participants to "do X" with no explanation, it is better to situate the request within a short **scenario:**
  o it sets the stage for the action and  explains why the user is "doing X"

- A task scenarios for usability testing need to provide **context** so users engage with the interface and pretend to perform it as if they were at home or in the office

https://www.nngroup.com/articles/task-scenarios-usability-testing/

# Recap: Tasks

- Make the task **realistic**

- Make the task **actionable**

- Avoid giving **clues** and **describing the steps**

# Exercise 1

- Look at the task list extracted from a plan of an **imaginary** usability testing, available in the next slide

- Answer those **questions**:
  - Are tasks good? Why/why not?
  - Are success criteria appropriate? Why/why not?
  - Is the listed methodology appropriate: in general, for the task, for the collected metrics?

- **Duration**: ~ 15 minutes

- In-class discussion will follow

# Exercise 1: Task List

| # | Task | Success Criteria | Methodology | Metrics |
|---|------|------------------|-------------|---------|
| 1 | The participants login via the homepage | The login form appears | Think-aloud | Time on task |
| 2 | The participants logout from the homepage after login | The logout button appears | Think-aloud | Time on task |
| 3 | Check the detailed information of a garment | The garment page appears | Think-aloud | - |
| 4 | Participant clicks the button to contact the shop from the garment info page | The message section appears | Think-aloud | - |
| 5 | Participant sends a message to the shop | Message sent | - | - |
| 6 | Participant goes back to the homepage | Click the header logo | - | - |

# Exercise 2

- Look at the task list extracted from a plan of a usability testing made by "Team N" in the 2023 version of the course, available in the next two slides

- **Topic**: help non-STEM university students prepare computer science exams

- Answer those **questions**:
  - Are tasks good? Why/why not?
  - Are success criteria appropriate? Why/why not?
  - Is the listed methodology appropriate: in general, for the task, for the collected metrics?

- **Duration**: ~ 30 minutes

- In-class discussion will follow

# Exercise 2: Task List (I)

*Task-related metrics*: time on tasks, success rate, number of errors

| # | Task | Success Criteria | Methodology |
|---|------|------------------|-------------|
| 1 | Select the "Web Development basics" topic in the topics section after searching for the word "Development" | The participant executes a search for the word "Development" and selects the correct topic | Think-aloud |
| 2 | Do a pending exercise after filtering for completion with the value "in progress" | The participant correctly identifies and selects the pending exercise from the filtered list | Think-aloud |
| 3 | Start an incomplete exercise on a topic where your progress is 3/5 and sends it without writing anything | The participant successfully navigates to the specified incomplete exercise on the topic with a progress rating of 3/5 and sends it without adding any written content | Think-aloud |

# Exercise 2: Task List (II)

*Task-related metrics*: time on tasks, success rate, number of errors

| # | Task | Success Criteria | Methodology |
|---|------|------------------|-------------|
| 4 | Do the only "in progress" exercise of Mobile Application Development to complete all the topic's exercises | The participant provides functional code that solves the proposed problem and on the page that displays the list of exercises of the "Mobile App Development" topic, a message is shown indicating that all exercises have been completed | Think-aloud |
| 5 | Propose an exercise for a completed topic | The user-created exercise is added to the 'My Exercises' list | Think-aloud |
| 6 | Sort the proposed exercises by descendant name | The participant accurately applies the "descendant name" sorting option | Think-aloud |
| 7 | Update a rejected exercise proposal | The participant revises the rejected exercise proposal in accordance with provided feedback or identified issues | Think-aloud |

# Exercise 3

- Start to draft a sample plan and script for conducting the usability testing of the **PoliTo Student App**

- Make the needed decisions (participants, equipment, artifacts, tasks, …)
  - We will make some of those together

- Work using the following Google Doc as a template:
  https://docs.google.com/document/d/13ZpLdwIdZFAM46nzl6MRedvRhO2Hmlektkx S1aCB1tY/

- In-class discussion will follow

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