CIS2170 User Interface Design

Lab 5 - Usability Testing

In Today's Lab:

- Usability
- Usability Testing
- A Better Fun Theory
- What to Submit

This lab will be graded.

Usability

Complete this section on your own. You'll work with your team a little later.

When you hear the term "usability," what does it mean to you? Create a Word or Google document, and write a short paragraph answering this question.

Read ["Usability 101 - Introduction to Usability", written by Jakob Nielsen](#).

Identify a piece of software that you use or have experience with that you believe has "usability", and describe why you believe this. You should use what you learned from "Usability 101 - Introduction to Usability" to support your answer.

Identify a piece of software that you use or have experience with that you believe does not have "usability", and describe why you believe this. You should use what you learned from "Usability 101 - Introduction to Usability" to support your answer.

Usability Testing

Complete this section on your own. You'll work with your team a little later.

Usability testing is an essential process that helps us evaluate a user interface.

We do this by asking users to interact with our system, observing what they do and the challenges they have, and using that information to redesign our system.

The goal of usability testing is to produce a user-friendly, intuitive, efficient, and enjoyable interface that improves user satisfaction and engagement.

Read ["Usability Testing 101" by Kate Moran](#).

Some usability testing methods include:
- Moderated in-person testing: Conducted face-to-face with a moderator guiding the participant through tasks and observing their behavior and reactions.
- Remote moderated testing: Similar to in-person testing but conducted remotely via Teams/Zoom, etc, allowing for geographical flexibility.
- Unmoderated remote testing: Participants complete tasks on their own using a provided interface, often with the help of usability testing software. This method is more scalable and less prone to moderator bias.
- Card sorting: Participants organize content into categories that make sense to them, helping designers understand the user's mental model.
- Think-aloud protocol: Participants verbalize their thoughts and feelings while using the product, providing insights into their decision-making process.
- A/B testing: Comparing two versions of a product to see which performs better on specific metrics. This is often used for fine-tuning and optimization.
- Eye tracking: Using specialized equipment to track where and how long a user looks at different areas of the interface; is useful for understanding visual attention.
- Heuristic evaluation: Experts review the product using established usability principles (heuristics) to identify potential usability issues.
- Usability benchmarking: Measuring the usability of a product against established standards or competitor products to gauge its relative performance.
- Diary studies: Participants keep a record of their interactions with the product over time, providing insights into long-term usage patterns and experiences.

Consider your Fun Theory idea from Assignment 1.

Briefly describe your idea in your Google or Word document, then identify how you would use usability testing (with specific reference to one of the methods described) to produce a more user-friendly, intuitive, and enjoyable interface that improves user satisfaction and engagement.

You should also identify which usability methods you think you'd use last (if at all) to improve your Fun Theory project. Include this and your reasoning in your Word or Google document.

A Better Fun Theory

Get together with your team.

Each member must discuss how they would use usability testing to produce a more user-friendly, intuitive, and enjoyable interface that improves user satisfaction and engagement.

If team members are missing, work with whoever on your team is present.

If no one from your team is present, work with another team (and document this in your Word or Google document).

Each person must document how usability testing might be used in their Word or Google document.

Once each person has presented their idea, as a team, select the best usability testing method you think would allow you to produce a more user-friendly, intuitive, and enjoyable interface that improves user satisfaction and engagement.

Be sure to document the best usability testing method.

You should include reasons for your selection based on your team conversation.

As a team, describe in detail how you would carry out the usability testing method you selected.

Be sure to identify:
- The goal of the usability testing
- Any facilitators
- The participants
- The recruitment process
- The tasks participants would perform
- The kind of data you'd be collecting - and why you need it

What to Submit

Each person on the team must submit their own work to CourseLink for grading.

MUST (65%)	SHOULD (+15%)	COULD (++)
Submit your work as a PDF.		Ensure that spelling & grammar are correct.
Describe what "usability" means to you. Identify a piece of software that has "usability" and describe why you believe this. Identify a piece of software that does not have "usability" and describe why you believe this. [20]	Describe the usability method(s) you think you'd use last to improve your fun theory project. Be sure to include your reasoning. [5]	Include a table of contents with appropriate section headings and page numbers. Include appropriate captions for all images in your document.
Briefly describe your fun theory project from Assignment 1, and identify how you would use usability testing to improve it. [3]		
Document the usability testing ideas presented by each team member. [20] Identify the best usability testing method. [2]	Include reasons you selected the best method. [5]	Describe how you selected the best usability testing method. That is, describe the process of coming to this decision within your team.
Describe in detail how you would carry out usability testing, identifying the goal of the usability testing, the facilitators and participants (and how the participants will be recruited), the tasks they should perform, and the kind of data you'd be collecting. [20]	Discuss how the data will help you produce a more user-friendly, intuitive, and enjoyable interface. Be specific and provide examples. [5]	Collect and describe feedback on your design based on the usability testing you've described.

- Submit your work as a single file. This must be submitted by the end of the lab.