



INTUX

INTUX Training course



INTUX PROJECT

Training Course

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Introduction

This resource provides course modules on user testing from an accessibility perspective. The resource covers five modules on inclusive user testing involving people with disabilities.

Audience

The target group of the course are teachers in UX-design, across EU Member States and Universities interested in organizing training courses for their students.

Description

A key part of the work of UX professionals is to ensure that the products and services they work on are usable to a wide range of people. A basic requirement for broad usability is that the products and services are accessible, that is that users can interact with them regardless of their abilities. It follows from this that user research and user testing need to include persons of different abilities to make sure that a broad variety of user needs are taken into account from the start.

In addition to this general argument related to opening up for a broader user base, there is also new legislation in the EU that pushes towards increased accessibility requirements in a number of services and products, especially in the digital world.

Despite these strong reasons for involving persons with disabilities in user testing, most university programmes for UX professionals do not systematically teach future UX professionals how to conduct user research in an inclusive and accessible way. There are good practices out there in both the private and public sector, but these have not made it into the curricula.

The INTUX project aims to develop a training course focused on user testing with people with disabilities, accompanied with a set of recommendations on how to integrate accessibility and inclusion in the role of UX professionals, co-created with a wide range of stakeholders.

This training material is based on previous project results:

- the **Literature review**, gathering relevant scientific information about user testing activities and experiences among researchers;
- the **Overview of best practices**, providing both practical examples and inspiration for how to develop and implement accessible and inclusive user testing in different settings;
- the **Validation and co-creation workshop**, including a diverse audience with varied backgrounds and experiences to assess and collect feedback on the identified best practices;
- the **Learning framework**, serving as a guideline for designing and implementing practice-oriented teaching of inclusive user testing based on close cooperation with disabled persons' organisations and other user organisations; and on the practicalities of the course (duration, structure and elements to consider, self-learning vs guided learning, etc.).

The modules follow the same structure:

- Prerequisites (expected competences)
- Learning outcomes for Module (what students will learn and should be able to demonstrate)
- Content divided into units
- Exercises (questions, reflection)
- Learning assessment methodology
- Links to further resources (where relevant)

Content

This course includes five modules on inclusive user testing. It covers different aspects of conducting user tests in an accessible way, and why it is important to involve users with disabilities. The course highlights what is important to think about before, during and after conducting a user test with users with different abilities and needs.

The five modules are:

- **Foundational:** planning, flexibility and back-up/alternatives.
- **Test panel set-up and diversity:** What to think about when setting up your test panel and recruiting participants.
- **Communication and etiquette:** What you need to know about disability etiquette and how to communicate in an inclusive way.
- **Assistive technology, guidance, and support:** How to support and guide users that make use of assistive technology.
- **Conclusion of the test, feedback and compensation:** Important things to think about after conducting a test.

1. Foundational

This module provides general introduction on relevant aspects regarding accessibility and inclusive user testing. Overarching; planning, flexibility, and back-up/alternatives.

The module contains an introduction to digital accessibility. What digital accessibility is, why it is important and who is affected. The module briefly touches on the accessibility requirements and laws that UX designers need to relate to, as well as terms around digital accessibility that are important to know. The module contains a brief review of the basics of inclusive user tests; accessible test environments, flexibility and problem solving, and why it is important to include users with disabilities. The module also touches on how personas and simple accessibility checks can be helpful in detecting basic accessibility issues before doing user tests with real users.

Prerequisites

- **Students:** Participants should have a basic understanding of UX-design and user testing, experience in planning and creating adaptable/alternative scenarios to enhance the quality and reliability of user testing results.
- **Instructors:** Knowledge on using digital technology, expertise in teaching UX-design and user testing, as well as in working with people with different disabilities.

Learning Outcomes for Module 1

Students should be able to:

- LO 1.1 Outline accessibility fundamentals.
- LO 1.2 Describe and explain terminology specific to accessibility.

- LO 1.3 Demonstrate awareness of the need to include people with disabilities in user testing.
- LO 1.4 Describe and explain the framework for inclusive user testing.
- LO 1.5 Demonstrate awareness of the impact of training participants and how it can affect test results.

Content for Module 1

1.1. Introduction to accessibility

Article 9 in the UN Convention on the Rights of Persons with Disabilities describes accessibility as ensuring access to persons with disabilities “on an equal basis with others, to the physical environment, to transportation, to information and communications, including information and communications technologies and systems, and to other facilities and services open or provided to the public”. This is needed “to enable persons with disabilities to live independently and participate fully in all aspects of life.

This means that countries (and regional integration organizations) signing the Convention must identify and eliminate barriers to accessibility when it comes to:

“a) Buildings, roads, transportation and other indoor and outdoor facilities, including schools, housing, medical facilities and workplaces;

b) Information, communications and other services, including electronic services and emergency services.”

Another way of defining accessibility is that it is the art of ensuring that information, activities, or environments are comprehensible, meaningful, and usable by the widest possible audience.

Accessibility is sometimes referred to as fair, equitable and responsible design.

Accessibility features are intended for individuals with disabilities, but the result can greatly enhance the experience for everyone. For example, automatic doors are essential for people with motor impairments, but also beneficial for people with baby strollers or heavy luggage.

1.1.1 What is digital accessibility?

Digital accessibility usually refers to websites and other digital interfaces and tools being designed and coded so that people with disabilities can use them. Another way of defining digital accessibility is that everyone, no matter of ability, can access information and use services.

According to W3C, “The Web is fundamentally designed to work for all people, whatever their hardware, software, language, location, or ability. When the web meets this goal, it is accessible to people with a diverse range of hearing, movement, sight, and cognitive ability.”

In the EU and many other parts of the world, standards and legislation provide minimum requirements on accessibility. But in order to make sure that digital technology actually meets the needs of people with disabilities, user testing is key.

1.1.2 Who benefits from accessibility?

Various target groups benefit from digital accessibility, including:

- People with disabilities
- Older adults
- People with temporary impairments
- People impaired by a situation
- Non-native speakers

The European standard EN 301 549 defines the “functional performance statements” below, relating to user needs. Each statement is essential for users with some disabilities, marked in parenthesis after the statement, but also benefits many more users in different situations. The functional performance statements are:

- Usage without vision (blind users)
- Usage with low vision (visually impaired users)
- Usage without perception of colour (colourblind users)
- Usage without hearing (deaf users)
- Usage with limited hearing (hard of hearing users)
- Usage with no or limited vocal capability (speech impaired users)
- Usage with limited manipulation or strength (motor impaired users)
- Usage with limited reach (motor impaired users)
- Minimize photosensitive seizure triggers (users with photosensitive epilepsy)
- Usage with limited cognition, language or learning (users with cognitive impairments)
- Privacy

Further reading on the subject:

- Blogpost (additional resource): [GOV.UK – Consider the range of people that will use your product or service](#)
- Guidance resource (additional resource): [W3C – How people with disabilities use the web](#)
- Blogpost with visuals on the subject (additional resource): [GOV.UK – Posters on dos and don'ts of designing for accessibility](#)

1.1.3 Laws and legislation

The UN Convention on the Rights of Persons with Disabilities (UNCRPD) is the first international, legally binding instrument, setting minimum standards for rights of people with disabilities, among others, the right to access. (See more above, at the beginning of section 1.1). The Convention has been ratified by the European Union and all its Member States.

There are laws that focus directly on accessibility or have accessibility requirements. Below is a short list of European directives, but there is more legislation that considers accessibility. Directives have to be implemented in the law of the Member States, meaning that there should be laws at national level ensuring the same rights and setting the same requirements.

- Audiovisual Media Services Directive (Directive (EU) 2018/1808, AVMSD): audiovisual media services have to be made continuously and progressively more accessible to persons with disabilities.
- Web Accessibility Directive (Directive (EU) 2016/2102, WAD): websites and mobile applications of public sector bodies need to be accessible, and need to have an accessibility statement.
- European Accessibility Act (Directive (EU) 2019/882, EAA): certain products (e.g. personal computers, ATMs, smartphones, smart TVs, e-book readers) and services (e.g. telephony, audiovisual media, certain transport services, consumer banking, e-books and e-commerce), as well as emergency communication need to be accessible.

Laws are supported by standards, that establish technical requirements that ensure compliance with the law. For example: European Standard EN 301 549 standard on accessibility requirements for ICT products and services; and European Standard EN 17161 on a Design for All approach in products, goods and services.

Countries usually also have general, anti-discrimination legislation, aiming to ensure that persons with disabilities are treated on equal basis with others.

1.1.4 Terminology

Knowledge of key accessibility terms helps the students understanding this course, different aspects and components of accessibility and expressing themselves clearly when talking about it. Below a non-exhaustive and diverse list:

- user needs and disabilities/impairments
- inclusion, access and barriers
- assistive technology (AT) and adaptive strategies
- content
- user agents
- keyboard access/navigation
- standards terminology
- technical terms, like alternative text, captions, contrast ratio, colour perception, etc.

Further reading on the subject:

- Guidance resource (additional resource): [W3C – Terminology](#)
- Guidance resource (additional resource): [Pearson – Glossary of Accessibility Terms](#)

1.2. Involving users

Short overview of how to conduct user tests in an inclusive way, and intro to content coming later in the course. It should cover the following:

- Takes place before, during and after the test session
- Include persons with disabilities in the test group
- Make sure the test environment, test material is inclusive (alternative formats)

- Support and guidance – interpreters, assistive technology (AT), disability etiquette
- Flexibility and problem solving

1.2.1 Why it is important to include persons with disabilities

Short intro to the importance in including users with disabilities in user tests. It should cover the following:

- Include users with different disabilities and user needs in the test group (15% of the world's population have some form of disability)
- Different perspectives
- Technical testing does not guarantee that all accessibility/usability barriers are accounted for – users may still have problems using the products/services.

Further reading on the subject:

- Guidance resource (Best practice no 10): [Xperienz – Conducting usability testing with people with disabilities](#)
- Guidance resource (additional resource): [W3C – Involving users](#) (Introduces considerations for usability testing and other evaluation with disabled people)
- Guidance resource (additional resource): [GOV.UK – Making your service more inclusive](#)
- Guidance resource (additional resource): [GOV.UK – Plan user research for your service](#) (Paragraph on importance of including users with disabilities)
- Guidance resource (additional resource): [Medium – How to start accessibility testing](#) (Why designing/testing for accessibility is important, challenges, resources for testing, recruitment)

1.2.2 Inclusive personas, user profiles and user stories

How inclusive personas, user profiles and user stories can help broaden the perspective of the target audience and discover accessibility barriers before testing with real users. This unit should also cover the importance of doing user research with all kinds of users.

Further reading on the subject:

- Guidance resource (additional resource): [GOV.UK – Learning about users and their needs](#)
- User profiles resource (additional resource): [GOV.UK – Understanding disabilities and impairments: user profiles](#)
- Blogpost (additional resource): [GOV.UK – Using persona profiles to test accessibility](#)
- Blogpost (additional resource): [GOV.UK – Remote accessibility persona testing](#)
- User profiles resource (additional resource): [Rosenfeld – Personas for Accessible UX](#)

1.2.3. Involving users through the design and development process

It is important to involve users in different states throughout the design and development process.

The unit explains about the possibility to train the participants (BP1.3), and the need to provide clear instructions (BP1.4).

Further reading on the subject:

- Guidance resource (additional resource): [Principles for Digital Development – Design with the user](#) (How to involve users in different stages of a project)

- Report (best practice no 5): [Nielsen Norman Group – How to Conduct Usability Studies for Accessibility \(page 5\)](#)
- Guidance resource (additional resource): [Smashing Magazine – How To Bake Layers Of Accessibility Testing Into Your Process](#)
- Toolkit (additional resource): [PWdWA – Connect with me](#) (Training toolkit for organisations co-designing with people with disability)

1.2.4 Review and resolve basic accessibility barriers before testing with users

The unit discusses the benefit of reviewing and resolving basic accessibility barriers before testing with real users, and how to perform basic accessibility checks (with existing tools and resources).

Further reading on the subject:

- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Evaluating for Accessibility](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Screening Techniques](#)
- Guidance resource (best practice no 6): [People Nerds – Article 1: Planning for accessible user research](#)
- Guidance resource (additional resource): [GOV.UK – Testing for accessibility](#)
- Guidance resource (additional resource): [GOV.UK – Doing a basic accessibility check if you cannot do a detailed one](#)
- Guidance resource (additional resource): [DWP – Basic accessibility checks](#)
- Guidance resource (Best practice no 10): [Xperienz – Conducting usability testing with people with disabilities – Is the website accessible enough to be tested?](#)

- Guidance resource (additional resource): [W3C – Easy Checks – A First Review of Web Accessibility](#)

1.3. Accessible environment for testing (On-site and online)

Instructions about what needs to be considered when it comes to accessible environment for testing, both on-site and online. Content also covers these best practices:

- Explanation of user testing goals to participants (BP1.1)
- Using accessibility standards (BP1.5)
- Possibility of a caregiver (or assistant) (BP2.2)
- Use of own personal equipment (BP2.3)
- Repeating tasks (BP2.4)
- Enough time (BP2.5)
- Taking breaks (BP2.6)
- Comfortable surroundings (BP2.8)]

Further reading on the subject:

- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Choosing the Best Location](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Ensuring the Facility is Accessible](#)
- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Consider the location](#)
- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Finalize the location](#)

- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – location, location, location](#)
- Guidance resource (additional resource): [GOV.UK – Choose a location for user research](#)
- Guidance resource (additional resource): [GOV.UK – Doing user research remotely by phone or video call](#)
- Guidance resource (Best practice no 10): [Xperienz – Conducting usability testing with people with disabilities – Where to conduct the usability tests?](#)
- Guidance resource (additional resource): [Intopia – Disability-inclusive usability testing](#) (Tips for virtual and in-person usability testing)
- Guidance resource (additional resource): [Maze – Understanding remote usability testing: A beginner's guide](#)

Further resources for consideration:

- Guidance resource (additional resource): [Rosenfeld – Choosing a location](#)
- Guidance resource (additional resource): [SIGACCESS – Accessible Conference Guide](#)
- Guidance resource (additional resource): [New York State Department of Health – How to plan events that everyone can attend](#)
- Guidance resource (additional resource): [U.S. Department of Justice – Meeting on a Level Playing Field](#)
- Guidance resource (additional resource): [DC Government Guide on Accessible Meetings & Conferences](#)
- Guidance resource (additional resource): [Directorate for Health and Social Affairs – Accessible meetings, courses and conferences](#)
- Guidance resource (additional resource): [NCODH – Removing Barriers, Planning Meetings that Are Accessible to All Participants](#)

1.4. Flexibility & problem solving – things to take into consideration

When conducting user tests with users with different types of disabilities and needs, flexibility and problem solving are key factors for a successful user test. Adaptations in planning, test materials, test environment and during the test session itself are of great importance for users to feel welcome and for you to get the most out of the test session.

Further reading on the subject:

- Guidance resource (best practice no 7): [TetraLogical – Moderating usability testing with people with disabilities](#)
- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Consider the timeline](#)
- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Consider the budget](#)
- Guidance resource (Best practice no 10): [Xperienz – Conducting usability testing with people with disabilities – Schedule the right amount of time for the testing](#)

Exercises

- **User personas**
 - Learning outcomes: LO 1.1, LO 1.2
 - Create personas (at least 5) covering different forms of accessibility needs (with permanent, temporary and situational impairments). Don't forget to include the use of different forms of assistive technology.
 - This exercise can easily be done in groups. Each group is responsible for creating one inclusive user persona, which they present to the class,

along with the discussions (and lessons learned) through the creation process.

- Resources
 - ❖ Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Personas](#)
 - ❖ Report (best practice no 5): [Nilsen Norman Group – How to Conduct Usability Studies for Accessibility \(page 5\)](#)
- **Checklist for accessible user-testing facility**
 - Learning outcomes: LO 1.1, LO 1.2, LO 1.3
 - Create a checklist for potential barriers that can hinder the access to user testing (digital and physical), suggesting possible backup plans and alternatives. Discuss and share notes with your teammates.
- **Checklist for inclusive user testing**
 - Learning outcome: LO 1.4
 - Create a checklist with bullet points for inclusive user testing. Start with what you have learned through this first module and continue to add bullets throughout this course. Discuss and share notes with your teammates.
- **Impact of Participant Training on Test Results**
 - Learning outcomes: LO 1.5
 - Watch a video presenting trained users (who received thorough training before the testing session) and a video presenting untrained users (who received minimal or no training). Compare and analyse the results and feedback from both groups to understand the impact of participant training on test outcomes.

- Discuss the importance of providing appropriate training to participants and its potential effects on the validity and reliability of user testing results.
- Alternative exercises: 1. Students are provided with a prototype of an interactive system and are asked to write a list of problems that untrained users might have. 2. Students are asked to write (and/or discuss) about the pros and cons of training users.

Learning assessment methodology

- Pre-assessments to measure baseline knowledge
- Written examination/test
- Test
- Oral presentation of a topic
- Discussion
- Comment/critique of a theoretical perspective
- Peer and instructor feedback to provide guidance and identify areas for improvement.

Example questions and suggestions for knowledge assessment

- What is important to think about when it comes to inclusive user testing?
- What should you think about to include when creating personas, user profiles and user stories for inclusive user testing?
- What barriers do you need to look out for when it comes to accessible facilities? What back-up plans/alternatives could you offer?
- What basic barriers do you need to look out for when it comes to accessible on-line testing? What back-up plans/alternatives could you offer?

- How would you plan user testing activities that consider accessibility standards?

Links to further resources

- Blogpost (additional resource): [GOV.UK – What we mean when we talk about accessibility](#)
- Guidance resource (additional resource): [W3C – Web Accessibility Initiative](#)
- Guidance resource (additional resource): [W3C – Web Accessibility Initiative – Web Accessibility Perspectives Videos](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities](#)
- Guidance resource (additional resource): [UXPA Magazine – Usability Testing by People with Disabilities: Some Guerrilla Tactics](#)
- Blogpost (additional resource): [GOV.UK – Accessibility and Me](#) (A series of interviews with people with access needs.)
- Project (best practice no 2): [Easy Reading project – Project and research related risks](#)
- Guidelines (best practice no 4): [IBM – Inclusive design research](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Planning usability testing](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Preparing for usability testing](#)

2. Test panel set-up and diversity

This module provides an introduction on how to involve users with disabilities: things that you need to think about when setting up your test panel and recruiting participants.

Prerequisites

- **Students:** Participants should have a basic understanding of UX-design and user testing, understanding the importance of correct recruitment, sample size, recruitment channels as well as diversity including demographics, abilities and disabilities, experience levels and cultural backgrounds, and have finished the first module of this course.
- **Instructors:** Knowledge on using digital technology, expertise in teaching UX-design and user testing, as well as in working with people with different disabilities.

Learning Outcomes for Module 2

Students should be able to:

- LO 2.1 Demonstrate awareness of the diversity of user needs of people with disabilities.
- LO 2.2 Apply basic knowledge on how to recruit people with disabilities.
- LO 2.3 Describe and explain the importance of obtaining consent, consequences of not providing it, and providing clear outlines for participants.
- LO 2.4 Describe and explain how to set up a test panel, including people with disabilities as testers.

- LO 2.5 Demonstrate awareness of additional support that might need to be arranged before a test session.
- LO 2.6 Describe and explain how to use accessibility standards in general and in user testing specifically.
- LO 2.7 Outline how to create an appropriate environment for user testing activities.
- LO 2.8 Demonstrate awareness of the benefits and drawbacks of having a caregiver during user testing, including proper behaviour and instructions.

Content for Module 2

2.1. Diversity of user needs – individual differences

Just because people have the same disability it does not mean that they have the same user needs, there are always individual differences when it comes to how users interact and experience digital products and services. This is something that you need to be aware of when setting up your test panel and recruiting users.

Further reading on the subject:

- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Individual Differences](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Finding people with disabilities](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Important cautions](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Additional Insights](#)

- Guidance resource (Best practice no 10): [Xperienz – Conducting usability testing with people with disabilities – Don't assume that one participant with a disability represents all](#)

2.2. Recruiting users

There are many ways to find and recruit users for your tests. This unit discusses different ways you can explore for finding and recruiting users for testing (examples in the resources), touching upon the pros and cons, when it comes to budget, time, and possibility to further contact/relationship with users/DPOs, etc. The prospect of compensation should already be covered in the recruitment process.

Further reading on the subject:

- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Recruiting Participants with Disabilities](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Focus the recruiting strategy](#)
- Company practice (best practice no 3): [Funka – Funka user testing practices](#)
- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Consider the recruitment](#)
- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Kick-off your recruitment](#)
- Guidance resource (additional resource): [GOV.UK – Finding participants for user research – Recruiting disabled participants](#)
- Guidance resource (Best practice no 10): [Xperienz – Conducting usability testing with people with disabilities – How to recruit users with disabilities?](#)
- Guidance resource (additional resource): [GOV.UK – Doing user research remotely by phone or video call – Remote research and inclusion](#)

- Report (additional resource): [Nielsen Norman Group – How to Recruit Participants for Usability Studies](#)
- Guidance resource (additional resource): [Usability Geek – 6 Ways To Recruit Participants For Remote Usability Testing](#)

2.3. Material for recruitment

What you need to think about when preparing your material for the recruitment process: e.g., screening questions, consent forms and treatment of user research data and participants details/privacy, information on compensation.

Further reading on the subject:

- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Prepare your materials](#)
- Report (best practice no 5): [Nielsen Norman Group – How to Conduct Usability Studies for Accessibility – Recruiting Screener \(page 25\)](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Screening questions](#)
- Report (best practice no 5): [Nielsen Norman Group – How to Conduct Usability Studies for Accessibility – Consent form \(page 41\)](#)
- Project (best practice no 2): [Easy Reading Project – Informed consent with pictorial support](#)
- Project (best practice no 2): [Easy Reading Project – Information to the informed consent for Tester with pictures](#)
- Guidance resource (additional resource): [GOV.UK – Getting informed consent for user research – Getting consent from disabled people](#)
- Guidance resource (additional resource): [GOV.UK – Managing user research data and participant privacy](#)

2.4. Arrange for additional support and guidance

This is what you need to think about when it comes to support and guidance for users during the recruitment process – including extra time, costs, alternative formats, interpreters, and AT. Content also covers these best practices:

- Possibility of a caregiver (or assistant) (BP2.2)
- Use of own personal equipment (BP2.3)

Further reading on the subject:

- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Arrange for interpreters](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Reimburse participants for necessary expenses](#)
- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Consider assistive technology needs](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Consider additional cost](#)

Exercises

- **Recruitment**
 - Learning outcomes: LO 2.1, LO 2.2
 - Work in groups and research different DPO's in your country/area for potential contacts regarding tests in the future.
- **Informed consent**
 - Learning outcomes: LO 2.2, LO 2.3

- Make your own template for informed consent including pictorial support.
- **Checklist for setting up an accessible testing environment**
 - Learning outcomes: LO 2.4, LO 2.5, LO 2.6, LO 2.7
 - Create a checklist for accessible testing environment and information. Discuss and share notes with your teammates.
- **Exploring the Role of a caregiver (or assistant) in User Testing**
 - Learning outcomes: LO 2.5, LO 2.8
 - Conduct a discussion on the benefits and drawbacks of having a caregiver present during user testing activities.
 - Develop guidelines for proper behaviour and instructions to provide to caregivers, emphasizing the importance of neutrality, non-influence, and facilitation of the testing process.
 - Role-play a user testing scenario where caregivers are present, allowing participants to practice interacting with caregivers while maintaining the integrity of the testing session.
- **Consent and Clear Outlines**
 - Learning outcomes: LO 2.3, LO 2.4, LO 2.7
 - Develop a sample consent form and instructions for user testing activities, ensuring it covers necessary information and outlines participants' rights and responsibilities.
 - Create a scenario where participants are given unclear instructions and task outlines. Evaluate the consequences of inadequate communication and discuss the importance of providing clear and understandable information.

Learning assessment methodology

- Pre-assessment (test) to measure baseline knowledge
- Written examination/test
- Written task
- Oral presentation of a topic
- Discussion
- Simulation
- Comment/critique of a theoretical perspective
- Peer and instructor feedback to provide guidance and identify areas for improvement.

Example questions and suggestions for knowledge assessment

- What do you need to think about when it comes to setting up a test panel, including people with disabilities?
- What is important to think about when recruiting users with disabilities.
- Name a few ways of recruiting users with disabilities.
- What additional support and costs do you need to consider when booking test sessions with persons with different types of disabilities?

3. Communication and etiquette

This module provides an introduction on how to communicate and interact with users with different types of disabilities, and important aspects to think about when contacting and conducting tests with users with different needs for support and guidance.

Prerequisites

- **Students:** Participants should have a basic understanding of UX-design and user testing and have finished the first and second module of this course. Participants should ideally also have basic knowledge about standards, digital accessibility and user testing, including basic skills in clear communication, as well as basic awareness about respecting participant's privacy.
- **Instructors:** Knowledge on using digital technology, expertise in teaching UX-design and user testing, as well as in working with people with different disabilities.

Learning Outcomes for Module 3

Students should be able to:

- LO 3.1 Explain disability etiquette.
- LO 3.2 Demonstrate awareness of participant's privacy and the need for empathy, patience, objectivity, appreciation and feedback.
- LO 3.3 Describe the need and explain and apply requirements for inclusive test material and the concept of alternative formats.
- LO 3.4 Describe and explain when and how to offer support and guidance to persons with disabilities.

- LO 3.5 Apply knowledge of conducting user testing with clear and understandable language, integrating knowledge of clear communication, clear and concise language, active listening, non-biased language and adaptability.
- LO 3.6 Outline and analyse the benefits and consequences of repeating tasks during user testing.
- LO 3.7 Demonstrate awareness of the need to create an environment, where taking breaks is allowed without disrupting testing activities.
- LO 3.8 Describe how to use supervisory protocols for testing activities while maintaining an appropriate testing environment.

Content for Module 3

3.1. Disability etiquette

Guidelines on respectful ways to communicate and interact with people with disabilities.

Further reading on the subject:

- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Disability etiquette](#)
- Guidance resource (best practice no 7): [TetraLogical – Moderating usability testing with people with disabilities – Be respectful](#)
- Guidance resource (additional resource): [RespectAbility – How to communicate with people with disabilities](#)
- Guidance resource (additional resource): [RNIB – Guiding a blind or partially sighted person](#)

3.2. Inclusive test materials

How to make sure that the test material you are using is inclusive for all users, including users with disabilities, and considering accessibility.

Further reading on the subject:

- Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Preparing Test Materials](#)
- Guidance resource (additional resource): [Maze – How to write an effective usability testing script \(+ example\)](#)
- Guidance resource (additional resource): [Usability Geek – 8 Tips For Writing A Smarter Usability Test Script](#)

3.3. Alternative formats

Make sure all users can access the information you are providing before, during and after the test session by offering alternative formats, when needed.

Further reading on the subject:

- Guidance resource (additional resource): [GOV.UK – Accessible communication formats](#)

3.4. Support and guidance

When planning your test session, consider and plan for the extra support and guidance that might be needed for your participants. Examples of support and guidance in relation to different forms of disabilities should be covered.

Further reading on the subject:

- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Lessons learned for participants with visual disabilities](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Lessons learned for participants with motor disabilities](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Lessons learned for participants with cognitive disabilities](#)

3.5 An inclusive user session

How to prepare for and conduct an inclusive user session:

- It is important to plan ahead to make sure you can offer the right guidance and support during a test session. Ask screening questions regarding demographic, habits and preferences and AT usage beforehand. (Also addressed in Module 2.)
- Introduction: Make users feel welcome and taken care of before the test session start. Offer extra support and guidance. Make sure all technology and AT is set up and works before the test session start. Introduce yourself and other participants, and their role. Inform the user about the purpose of the test, and what will happen during the test, and get the users informed consent. Clarify that it is not the participants who is being tested, but the product or services. Give the user chance to ask questions. (AT set-up is addressed in Module 4.)
- If you are the facilitator, try to avoid taking notes during the session and give the user your full attention. If needed, have another person taking note.

- If the session is remote and you are recording the session, confirm that you have the participants consent before and when you have started the recording.
- Give instructions for tasks in simple language and make sure the user understand what they need to do.
- Let the user dictate the pace of the test and take breaks when needed.
- Give extra instructions/reminders/support when needed.
- Be flexible and have back up alternatives for protocol and questions.
- Check in with participants during the test session.
- After the session is finished, make room for wrap up, additional questions and information regarding compensation and contact information on how to reach out to if the user have any questions afterwards. (Addressed by Module 5)

Further reading on the subject:

- Guidance resource (additional resource): [Maze – Usability testing questions: How to write and ask effective UX questions](#)
- Guidance resource (best practice no 8): [GOV.UK – Running research sessions with people with disabilities – Before a session](#)
- Guidance resource (best practice no 8): [GOV.UK – Running research sessions with people with disabilities – During a session](#)
- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – During the session](#)
- Guidance resource (Best practice no 10): [Xperienz – Conducting usability testing with people with disabilities – Moderating the test session](#)
- Guidance resource (additional resource): [GOV.UK – Doing user research remotely by phone or video call – Plan the research](#)

- Guidance resource (additional resource): [GOV.UK – Doing user research remotely by phone or video call – Do the research](#)
- Guidance resource (additional resource): [GOV.UK – Taking notes and recording user research sessions](#)
- Guidance resource (additional resource): [GOV.UK – Researching user experiences](#)

Exercises

- **Disability etiquette**
 - Learning outcome: LO 3.1
 - Discuss what you have learned about disability etiquette. Did you learn something new that you haven't considered before?
- **Checklist for inclusive and accessible test material**
 - Learning outcomes LO 3.2, LO 3.3
 - Create a checklist for inclusive and accessible test material. Discuss and share notes with your teammates.
- **Following Accessibility Standards in User Testing**
 - Learning outcomes LO 3.3, LO 3.4
 - Select a digital product or website and create a user testing plan that considers requirements in established accessibility standards, such as WCAG (Web Content Accessibility Guidelines).
 - Identify potential challenges or barriers that may arise during user testing and develop strategies to overcome them.
 - Discuss the effectiveness of incorporating accessibility standards into the user testing process and identify any challenges or improvements.

- **Fictional test scenario**

- Learning outcomes: LO 3.2, LO 3.3, LO 3.4, LO 3.5
- Imagine that you are planning for a usability test. The participants in the test are the user personas that you created in the first module. How do you make sure that the participants' privacy is respected? What additional support or guidance could be needed onsite vs. online? What alternative formats could you offer the participants? How do you make sure that the tasks are clear?
- Resources:
 - ❖ Guidance resource (best practice no 9): [UI Access – Just Ask: Integrating Accessibility Throughout Design – Preparing for Usability Testing](#)

- **Exploring the Impact of Task Repetition**

- Learning outcome: LO 3.6
- Assign participants tasks to perform on a digital product or website, with some tasks repeated and others not.
- Analyse the impact of task repetition on participant performance, feedback, and overall user experience, considering both the benefits and potential drawbacks.
- Evaluate the usefulness of task repetition in uncovering usability issues, identifying learning effects, and understanding its impact on user feedback.

- **Creating an Inclusive Testing Environment**

- Learning outcomes: LO 3.5, LO 3.7

- Develop guidelines for recognizing and accommodating the needs of user testing participants, including provisions for breaks without disrupting the testing activities.
- Role-play scenarios where participants have specific needs or limitations, such as requiring breaks or accommodations.
- Practice adapting the testing environment to cater to participant needs while ensuring the integrity and continuity of the testing process.
- **Supervision Protocol in an Appropriate Testing Environment**
 - Learning outcome: 3.8
 - Develop guidelines for supervising user testing activities, outlining responsibilities, communication protocols, data handling procedures, while maintaining a comfortable and accessible testing environment.
 - Conduct a discussion on the importance of adhering to supervision protocols and creating an appropriate environment that respects participant privacy and ensures their comfort and safety.

Learning assessment methodology

- Pre-assessment (test) to measure baseline knowledge
- Written task
- Oral presentation of a topic
- Discussion
- Simulation / roleplay
- Discussion of an application scenario
- Comment/critique of a theoretical perspective

- Peer and instructor feedback to provide guidance and identify areas for improvement.

Example questions and suggestions for knowledge assessment

- What is disability etiquette?
- What is important to think about when it comes to offering support and guidance to people with disabilities?
- What do you need to think about when it comes to inclusive test material? What alternative formats could you offer?
- What is important to think about when conducting an inclusive test session and creating an inclusive testing environment?

Links to further resources

- Project (best practice no 2): [Easy Reading Project – Checklist for collecting and treating data correctly](#)
- Project (best practice no 2): [Easy Reading Project – Checklist for interaction with users during user trials](#)

4. Assistive technology, guidance, and support

This module provides an introduction to different forms of assistive technology, as well as an overview on how to guide and support users with assistive technology during a test.

Prerequisites

- **Students:** Participants should have a basic understanding of UX-design and user testing, as well as of digital accessibility, and have finished the first, second and third module of this course. Participants should ideally also have basic knowledge about the diversity of assistive products.
- **Instructors:** Knowledge on using digital technology, expertise in teaching UX-design and user testing, as well as in working with people with different disabilities.

Learning Outcomes for Module 4

Students should be able to:

- LO 4.1 Describe different types of assistive technologies (AT) and explain how they are used.
- LO 4.2 Outline the preparations that need to be made before a user test in relation to assistive technology.
- LO 4.3 Demonstrate awareness of the support and guidance that might be necessary during a user test for users with assistive technology.
- LO 4.4 Apply knowledge on how to incorporate assistive products into user testing, considering compatibility and personal equipment: the advantages and

disadvantages of testers using their own personal equipment and the need to solve compatibility issues.

- LO 4.5 Analyse the positive and negative aspects to user testing from home, considering the test content/product.
- LO 4.6 Demonstrate awareness of the positive and negative sides of having a guide while performing user testing activities.
- LO 4.7 Describe how to behave toward the caregiver (or assistant) and what instructions to give them.

Content for Module 4

4.1. Assistive technology

Overview of different forms of assistive technology that you might encounter when conducting user tests with participants with disabilities.

Further reading on the subject:

- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Bring their own equipment/assistive technology](#)
- Guidance resource (Best practice no 10): [Xperienz – Conducting usability testing with people with disabilities – Which devices should the participants use?](#)
- Guidance resource (additional resource): [GOV.UK – Using moderated usability testing – Researching with assistive technologies](#)
- Guidance resource (additional resource): [GOV.UK – Testing with assistive technologies](#)

- Guidance resource (additional resource): [GOV.UK – Assistive technology testing](#)

4.2. Preparations and set-up

Things to think about before a test session, preparations, information, and set-up of assistive technology. Content also covers these best practices:

- Explanation of user testing goals to participants (BP1.1)
- User testing from home (BP2.1)
- Use of own personal equipment (BP2.3)

Further reading on the subject:

- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Allow additional time](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Confirm participant needs](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Revise directions](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Review the emergency evacuation plan](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Consider logistics](#)

- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Conduct pilot tests](#)

4.3. Support and guidance

Consider and plan for the extra support and guidance that might be needed for your participants. Examples of support and guidance in relation to different forms of AT should be provided. Content also covers these best practices:

- Possibility of a caregiver (or assistant) (BP2.2)
- Use of own personal equipment (BP2.3)
- Repeating tasks (BP2.4)
- Enough time (BP2.5)
- Taking breaks (BP2.6)
- Supervision by professionals (BP2.7)

Further reading on the subject:

- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Lessons learned for participants with visual disabilities](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Lessons learned for participants with motor disabilities](#)
- Guidance resource (best practice no 1): [Bentley University – Tips for conducting usability studies with participants with disabilities – Lessons learned for participants with cognitive disabilities](#)

Exercises

- **Knowledge of Assistive Technologies**

- Learning outcome: LO 4.1
- Think of all the different types of assistive technologies that you have heard of.
 - ❖ Make a list of the assistive technologies.
 - ❖ Identify the user groups that could benefit from using these types of assistive technology.
- Think of any examples of built-in assistive technology that you or someone you know have used in your everyday life on favourite websites, platforms or social media channels.
 - ❖ Make a list of the built-in assistive technologies.
 - ❖ How did they make life easier for you / your acquaintance?

- **Incorporating Assistive Products and Personal Equipment in User Testing**

- Learning outcomes: LO 4.1, LO 4.2, LO 4.3, LO 4.4
- Design a user testing scenario/session to evaluate the accessibility of a digital product or website, that uses specific assistive products or personal equipment that align with the targeted disabilities or impairments.
- Identify compatibility issues or challenges and potential limitations that may arise and propose solutions to address them.

- **Exploring the Impact of User Testing from Home**

- Learning outcome: LO 4.5

- Discuss how the session in the previous exercise would be influenced if the tester participated from home.
 - ❖ What would you need to do differently: what are the extras, and what are the things you would need to concentrate less? What preparations are necessary? How would you change the communication, instructions?
- Identify advantages / disadvantages of testing from home, specific for the invented test scenario.
- **Exploring the Impact of having a Guide and/or a Caregiver (or Assistant)**
 - Learning outcomes: LO 4.6, LO 4.7
 - Work in groups, discuss and write down how the session in the previous exercise would be influenced by a guide and/or a caregiver/assistant.
 - Also discuss and write down how it influences communication and instructions.
 - Present the outcomes and discuss them among the groups.

Learning assessment methodology

- Pre-assessment (test) to measure baseline knowledge
- Written task
- Oral presentation of a topic
- Discussion
- Simulation
- Discussion of an application scenario
- Comment/critique of a theoretical perspective

- Peer and instructor feedback to provide guidance and identify areas for improvement.

Example questions and suggestions for knowledge assessment

- What is assistive AT?
- Name a few different types of assistive technology. Pair the different ATs with different user group for whom they might be relevant.
- What is important to think about when it comes to offering support and guidance before and during a test for persons using AT? Give examples in relation to different AT.
- What do you need to think about when it comes to preparation and set-up before a test in relation to AT usage? Give examples in relation to different AT.
- How do you need to adjust the communication, including instructions, if the test is done from home?
- How do you need to adjust the communication, including instructions if a caregiver/assistant is present?

Links to further resources

- Guidance resource (additional resource): [ATiA – What is AT?](#)
- Guidance resource (additional resource): [MSFTEnable – Assistive Technology \(video\)](#)
- Guidance resource (additional resource): [ENTELIS+ training video – Assistive Technology in Use: Motor impairment \(video\)](#)
- Guidance resource (additional resource): [ENTELIS+ training video – Assistive Technology in Use: Reading and writing disabilities \(video\)](#)

- Guidance resource (additional resource): [ENTELIS+ training video – Assistive Technology in Use: Visual impairment \(video\)](#)
- Guidance resource (additional resource): [ENTELIS+ training video – Assistive Technology in Use: Low vision \(video\)](#)

5. Conclusion of the test, feedback, and compensation

This module provides an introduction to important aspects to think about when after conducting a user test. Feedback and compensation to the users.

Prerequisites

- **Students:** Participants should have a basic understanding of UX-design and user testing and have finished all the previous module of this course.
- **Instructors:** Knowledge on using digital technology, expertise in teaching UX-design and user testing, as well as in working with people with different disabilities.

Learning Outcomes for Module 5

Students should be able to:

- LO 5.1 Describe how to wrap up a user test in an inclusive way.
- LO 5.2 Apply knowledge of providing feedback in a structured manner after user testing activities.
- LO 5.3 Demonstrate awareness of the importance of appropriate compensation for user testing activities.
- LO 5.4 Describe and explain how to provide appropriate support after testing activities.

Content for Module 5

5.1. Conclusion of a user test

This unit covers:

- Ending the session in good time "on a good note".
- Closing questions, anything the user wants to add?
- Give space for the user to ask questions.
- Provide information regarding how the compensation for participation will be received as well as contact information to whom the user can contact if he has questions that arise afterwards.

Further reading on the subject:

- Guidance resource (additional resource): [GOV.UK – Researching user experiences – Wrap up the session](#)

5.2. After the session is finished

The unit covers:

- What is important to consider when it comes to extra support for users after the test is completed; online/onsite.
- Debrief (the people who conducted the test) – summarize findings.
- Share your experiences and discoveries gained from the test exercise, to help others organise more inclusive test sessions.
- Content also covers best practice: Support after testing (BP3.2).

Further reading on the subject:

- Guidance resource (best practice no 8): [GOV.UK – Running research sessions with people with disabilities – After a session](#)

- Guidance resource (additional resource): [GOV.UK – Analyse a research session](#)
- Guidance resource (additional resource): [GOV.UK – Sharing user research findings](#)
- Guidance resource (additional resource): [Maze – How to analyze and report usability test results](#)

5.3. Compensation

The importance of offering some form of compensation to users. Content also covers best practice: Compensation (BP3.1).

Further reading on the subject:

- Guidance resource (additional resource): [Usability.gov – Recruiting Usability Test Participants – Compensating a Participant](#)
- Guidance resource (additional resource): [User interviews – User Research Incentives](#)

5.4. Feedback

The importance of giving feedback to users about the findings/discoveries: how their participation contributed to improvements, etc.

Further reading on the subject:

- Guidance resource (best practice no 6): [People Nerds – A Comprehensive Guide to Accessible User Research – Reporting the sessions](#)

Exercises

- **Feedback**
 - Learning outcomes: LO 5.3
 - Make your own template for user feedback. It doesn't have to be long. Show your appreciation for their support and remember that feedback is a way to build and maintain a good relationship with your users.
- **Checklist for wrap up**
 - Learning outcomes: LO 5.1
 - Create a checklist for things to remember after finishing a test session onsite and online. Remember to take additional guidance and support into consideration (logistics, travels, assistive technology).
- **Compensation and Support after User Testing**
 - Learning outcomes: LO 5.3, LO 5.4
 - Explore different models and approaches for compensating user testing participants.
 - Develop a framework for determining appropriate compensation based on factors such as time commitment and participant contribution.
 - Design a support system for participants after testing activities, including providing resources and addressing factors such as feedback, debriefing, and potential follow-up, as well as assistance if needed.

Learning assessment methodology

- Pre-assessment (test) to measure baseline knowledge
- Written task

- Oral presentation of a topic
- Discussion
- Peer and instructor feedback to provide guidance and identify areas for improvement.

Example questions and suggestions for knowledge assessment

- What do you need to think about when finishing a test session?
- Why is it important to give users compensation for participating in a test?
- What do you need to think about when it comes to guidance and support after a test session has finished?
- Why is it important to give users feedback?