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Key considerations when planning a remote usability study for accessibility



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found (technical, design and content) will be more relevant to people with particular disabilities.

If possible, try to include varied access needs in your research study; including vision, hearing, motor, cognitive, limited digital experience, mental health, cultural and language barriers.

- What areas do you want to focus on? Will you include assistive technology users?
- Do you have someone with experience working with people with disabilities to plan and conduct the sessions?
- Is your product ready to be tested by assistive technology users? Have you completed a technical audit first and fixed the major issues?
- Which assistive technologies do you need (or want) to research with? — Include versions, devices, costs, etc.
- How will you find and recruit participants for the research studies? — external recruiter; internal staff or contacting charity organisations.
- What software will you use to conduct the research studies (e.g. video conferencing tools)? Does this limit what type of research studies you can carry out?
- How will you differentiate accessibility issues from technical issues, design and usability issues?
- How will you report accessibility issues back to the relevant teams?

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Recommended assistive technology and settings to test (high-level)

Before you conduct the usability study try to spend time understanding the key assistive technologies and the key technical issues that can occur when using each one. This will give you a better understanding of the difference between technical, design and content findings in relation to accessibility.



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- [Guidance on using mobile screen readers \(Paciello group, PDF document\)](#)
- Shortcuts and guidance for desktop: [JAWS](#) and [NVDA](#)
- WebAim conduct a screen reader survey every year which can aid with deciding what to test — <https://webaim.org/projects/screenreadersurvey8/>
- **Screen magnification:** [ZoomText](#)
Tablet/Mobile — Built in to iOS and Android
- **Voice recognition:** [Dragon Naturally speaking](#), for Windows and Mac.
There are many [text-to-speech software options](#), however, I usually test with a Dragon if possible.
- **Navigate using keyboard only:** Try just using your tab key and up and down arrows to navigate (bluetooth keyboard for mobile and tablet)
- **Switch control:** Users with limited mobility may need to use an alternative to mouse or keyboard to navigate around a digital screen. The most commonly known option for this is switch control.
— [Check out this post to understand switch accessibility in more detail](#)
- **Enlarging text on computer** (or in the browser)
- **Changing the device colour profile** (colour blindness)
- **Check any videos or audio have the option to use captions/transcript**
- Do not show participants any media with flashes or movement before ensuring they do not suffer from epilepsy or motion sickness.

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Understand the assistive technology used by each individual participant

Before the study you should find out what assistive technology each participant uses (if any) and try to understand how they use it. This will allow you to prepare for any potential constraints or issues that may arise during the usability study.



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- Does the participant use different assistive technology on different devices? (e.g. JAWS on desktop and VoiceOver on mobile)
- What version of assistive technology is the participant currently using? – Technologies such as JAWS and Dragon charge users for version upgrades and this is not always affordable.
- Is the participant using a non-default mouse or keyboard? E.g. a specialised custom mouse that works with Dragon; or a switch control.
- How experienced is the participant with the assistive technology? — For example, participants who are dyslexic may only use screen reader technology occasionally.

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Ask about support

“Ask people with disabilities what their support needs are so that you can plan for this”
ADA, Ask me guidelines for effective consultation with people with disabilities

It is important to ask participants individually if they have any support requirements, or ways you can assist them, prior to the usability study. The participant may not need any support before or during the study, however, it is important to ask the question, and adjust your study accordingly.

Some participants with disabilities may need assistance with everyday activities, such as personal care, or taking notes. If this support is required usually the participants carer or facilitator will accompany the individual. If possible, speak with the carer beforehand and understand what support they provide when the participant is using digital devices. In my opinion, it is okay for the same level of support to be given during a remote usability study.

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card sorting. **Therefore, I personally recommend using video communication software to interact with the participants and share screens.**

Ask your participants what they are currently using to communicate with family and friends online; consider using the same remote technology for the study so they are already familiar with it. This will ensure the focus is on the usability study, rather than the participant potentially having to learn how to use a new video communication tool.

Ask your participants what they currently using to communicate with family and friends online — consider if you can use the same remote technology for the study so they are already familiar with it.

Try to test with the same assistive technologies that your participants will be using in advance: Before starting the research study, you will need to ensure that the software you choose works with the latest versions of the main assistive technologies I listed above — preferably, the latest 2 versions if possible. You can test this based on your participant requirements, or ensure your recruitment brief includes specific assistive technology version restrictions.

- **Skype:** In the past, I have used Skype with participants who have access needs and this has worked well. I have used this for Interviews and screen sharing.
- **Zoom:** I've been informed by screen reader users that Zoom is easy to use, however, there are some minor work arounds required for older versions of screen reader software.
- **Google Hangouts:** has also worked well for me, especially when communicating with screen reader users.

Think about security concerns: Participants may be concerned with online meetings and security right now; this something to be aware of and prepared for incase participants ask about it — <https://zoom.us/security>

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Communication and format



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on Skype, rather than audio). For example, participants with autism who are non-verbal are likely to prefer this option.

Think about sign language and lip reading: People who are deaf may be able to lip read and therefore need to clearly see your face at all times. Or, a participant may require sign language interpretation to understand what is being said during the study.

People with learning disabilities may require easy-to-read versions of the tasks and instructions to enable their comprehension of any details. Easy-to-read versions of documents can also aid people whose first language is not English, as well as those with literacy difficulties.

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Check the participants set up

Before the study you should check that each participant has all the correct equipment (camera/laptop/software/microphone) to conduct the study.

Is the participant somewhere quiet? Are they comfortable? Do they need help with any of the set up? This is similar for all participants, but also remember that it could take slightly longer to set up for people with access needs.

- Will the participant need any extra support during the study?
- Will the participant need alternative formats for the tasks and instructions?
- Does the user have all the equipment required?
- Is the video and audio good quality?
- Does the user need help with setup?
- Is the participant comfortable with their set up?

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Building trust with the participant prior to the study



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I've found this makes the session more personal and can also help a participant feel at ease.

In the past I have also had a call with some participants a few days prior to the study. This can help the user feel more at ease, and give them the chance to ask any questions they may have about the study or the usability set up.

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Planning your usability tasks and schedule

Allow for extra time in the study than you would normally, especially if the participant is using assistive technology.

- **Allow 30 minutes in-between each study** for potential set-up issues or studies, which may over run.
- People with disabilities often haven't taken part in any or a lot of research studies, and therefore have told me in past studies that they feel nervous. **It can help to spend a bit more time chatting with the participant at the start of a study** to put them at ease and build trust, before getting into the usability tasks.
- **Create and write tasks as you would with people without access needs.** Best practice is to ensure the tasks are easy to understand; not too long and do not lead the participants.
- **Consider tasks which will test the assistive technology against different UI elements;** e.g. video/audio, forms, overlays, navigation, etc.
- **Important: Test all your tasks with the assistive technology first to check that it doesn't cause a major bug/issue, break or not work.** If this happens the issue should ideally be fixed first before testing with a participant.
- **Prepare for the possibility that you may need to provide the tasks in a different format** — e.g. you may need to sent the tasks within a word document or show the tasks on screen in text format, as well as saying the tasks out loud.



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following article -

<http://uiaccess.com/accessucd/interact.html>

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Useful resources:

- [W3C high-level information about planning usability studies](#)
- [NDA: Ask me guidelines for effective consultation with people with disabilities](#)
(some information is not applicable to usability studies, however, I find this PDF very informative)
- [Inclusive design event 2019, Usability testing presentation](#)
- [AbilityNet are currently creating lots of webinar content to help with remote meetings for staff with access needs](#)
- [UI Access, interacting with people with disabilities](#)
- [Google initiatives and research](#)

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