

Cognitive Walkthrough

What Is a Cognitive Walkthrough?

A cognitive walkthrough is a step-by-step exploration of a service to see how well a particular type of user, usually represented by a [persona](#), is able to accomplish a particular objective or set of objectives. The objectives selected for testing are dictated by the persona that is chosen.

How to Perform a Cognitive Walkthrough

1. Choose a user

- Choose a user from whose perspective you will perform the walkthrough. This may be easiest to do by selecting a [persona](#) - see [UX Walkthrough Preparation and Execution](#) for more information on this, as well as what to do if you can't create a persona.
- If using a persona, ensure that the persona:
 - is adequate to judge what knowledge the user may plausibly be expected to have
 - specifies the particular needs, preferences, and limitations the user may have
- Note: separate walkthroughs may be needed for each persona or user type, although some issues will likely show up in more than one walkthrough, resulting in later walkthroughs going more quickly than earlier ones.

2. Define the goal & tasks

- Determine the specific result desired by the user and motivating the interaction
- Lay out the sequence of steps the user/persona should go through to accomplish their goal. (Information on defining goals can be found in [UX Walkthrough Preparation and Execution](#)).

3. Perform the tasks

Addressing Usability in a Cognitive Walkthrough

Work out the sequence of steps the user should go through, to accomplish the goal (see "Define the Goal & Tasks" above).

For each step in accomplishing a task, ask:

1. Will the user know what to do at this step? Is complex problem solving needed to figure out what to do?
2. If the user does the right thing, will they know that they did the right thing, and are making progress towards their goal? Is complex problem solving needed to interpret the feedback?

Addressing Accessibility in a Cognitive Walkthrough

An accessibility walkthrough follows procedure similar to the cognitive walkthrough described above, with the difference that the user has one of a number of disabilities such as low vision, blindness, impaired hearing, motor control limitations, or cognitive issues.

In an accessibility walkthrough, the main consideration is how these limitations affect the use of websites or software. For example: blind persons and some persons with limited motor control need keyboard-only operation; some persons with cognitive issues need visuals that reinforce text; persons with low vision must enlarge page content; deaf people require video captioning and visual, rather than auditory, prompts. You also must consider the assistive technology the user will use. Examples include screen magnifiers such as ZoomText, screen readers such as JAWS, or combination screen readers/enlargers such as Kurzweil 3000.

Before proceeding with the formal walkthrough, it is useful to perform the following steps:

1. **Assess the overall layout and structure of each page.**
2. **Play around with the layout: enlarge the font size; change the size of the window (bigger and smaller); adjust the resolution.**
3. **Use the Tab key to traverse the entire page.**

To perform an accessibility walkthrough, adopt a persona, select a goal, and perform the steps necessary to accomplish the goal. At each step, ask the following questions:

1. Will the user know what to do at this step?

- Is complex problem solving needed to figure out what to do?
- Are the cues provided accessible to the user?
- Can the cues be understood by someone who doesn't process text well?
- Can the cues be found by someone who can't scan the screen easily?

2. Will the user be able to carry out the required action?

- Can it be performed easily by a keyboard-only persona?
- Can it be performed without visual monitoring?

3. If the user does the right thing, will they know that they did the right thing, and are making progress towards their goal?

- Is complex problem solving needed to interpret the feedback?

- Is the feedback accessible to the user, and can they find it (as for cues)?

To conduct an actual accessibility walkthrough and assessment, it is recommended that the reviewer select a persona to adopt and then follow one the detailed protocols listed in the section on heuristics:

- [Simple Accessibility Review Protocol](#)
- [Comprehensive Accessibility Review Protocol for PC](#)
- [Comprehensive Accessibility Review Protocol for Macintosh](#)