## Usability Test 1 – Accessibility Navigation (BSL Video Access)

**Objective:**

To evaluate how intuitively users can locate and access the British Sign Language (BSL) video from the physical signage and within the prototype website, simulating the experience of a deaf individual who relies primarily on sign language.

**Test Scenario:**
Participants are shown a signage mock-up containing a QR code. They are asked to scan the QR code, which redirects them to the prototype website. The interface of the website is intentionally displayed in Arabic to simulate the experience of a user who does not rely on written English, representing deaf individuals who prefer sign language over text-based content.

**Task:**
Participants must locate and activate the BSL video button on the webpage, which launches a sign language translation of the content.

**Test Metrics:**

- Time taken to identify and access the BSL video.
- Success rate (whether the BSL video was accessed without assistance).
- User feedback on the clarity of navigation and the signage-to-video process.
- Observational notes on confusion, hesitation, or misclicks.

**Purpose:**
This test aims to assess how effectively the signage and web interface support accessibility for deaf users, and to identify any barriers in locating critical accessibility features without relying on written language comprehension.

**Findings & Feedback:**

- The BSL video button on the website was not immediately clear or identifiable to participants.
- Users typically finish the process between 45-60s
- The current BSL icon was too small, making it easy to overlook.
- The physical signage could be improved by including a brief description next to the QR code, informing users of its purpose (e.g. "Scan for BSL translation of this page").

**Usability Test 2 – Digital Guidebook Accessibility via TalkBack**

**Objective**
Evaluate how effectively blind users can access and understand the content in the digital version of the braille guidebook using TalkBack, simulating the tactile experience through screen reader navigation.

**Test Scenario**
Participants are given a tablet or smartphone with the digital guidebook loaded and TalkBack enabled. They are instructed not to look at the screen (screen hidden or blindfolded) to simulate the experience of a blind user. The guidebook includes braille representations (visual), textual descriptions, and image alt-text or ARIA labels that should be read aloud by TalkBack.

**Task**
Participants must use TalkBack to:

1. Navigate to and identify the name of the featured plant
2. Listen to and understand the plant description
3. Recognize that braille content is present (not read aloud)
4. Locate and interpret the purpose of the QR code
5. Summarize what they learned about the plant using only TalkBack

**Test Metrics**

- Time taken to complete all tasks
- Success rate in identifying all required information without external help
- Number of TalkBack misreads or skipped content (e.g., unlabeled elements)
- Verbal feedback on clarity of content and ease of navigation
- Observations of user difficulty, hesitation, or repetition

**Purpose**
This test is conducted to evaluate the effectiveness of the digital guidebook's accessibility features in the absence of actual blind users. By simulating a blind user’s experience through the use of TalkBack, the goal is to identify whether the guidebook’s structure, content, and ARIA implementation support screen reader navigation in a meaningful and coherent way. This allows

the design team to assess how well the guidebook communicates essential information to non-visual users, and to uncover any barriers that may hinder accessibility in real-world usage.

**Findings & feedback:**

- Participants were unsure about the placement of the QR code, especially when navigating the page non-visually.
- Users can typically finish navigating through the guidebook up to the QR code section
- The QR code text and location were confusing, and lacked clear cues or indicators for blind users.
- A suggested improvement was to add a raised tactile border around the QR code in the physical guidebook, to make its presence and location perceptible.
- Despite the QR code issues, participants were generally able to understand the illustration, heading, and plant description using TalkBack.
- Overall, users could grasp the general content and purpose of the guidebook page, though more explicit directional cues for interactive elements (like QR codes) are needed.