

# The De-Sign Platform: An Online Psychometric Tool for Dementia Screening of Deaf Older Adults.

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## Introduction & Objectives

**The Problem:** Deaf older adults face significant barriers in dementia screening due to a lack of healthcare professionals fluent in sign languages.

**The Gap:** Existing cognitive tests are often language-biased or require interpreters, leading to potential misdiagnosis.

**Goal:** To develop culturally and linguistically adapted, web-based screening tools for Greek Sign Language (GSL) and Austrian Sign Language (ÖGS).

## Methodology

**Origin:** Adapted from the British Sign Language Cognitive Screening Test (BSL-CST).

**Adaptation Process:**

- ✓ Linguistic and cultural mapping by multidisciplinary teams (Deaf experts, psychologists, linguists) in each country.
- ✓ Specific tasks (e.g., fingerspelling) were modified to fit local cultural norms.
- ✓ Pilot testing with 20 participants per country to refine the digital flow.

**Framework:** Built on a unified tech framework (JS, JSON) ensuring data security and cross-country homogeneity.



## Preliminary Results

- **Normative Sampling:** Data collection from **100 participants in Austria** and **70 in Greece** (ongoing).
- **Validation:** High quality, linguistic precision, and cultural relevance confirmed during the pilot phase.
- **Outcome:** Successful creation of the first scientifically validated cognitive screening tools for Deaf populations in Greece and in Austria.

## The De-Sign Platform

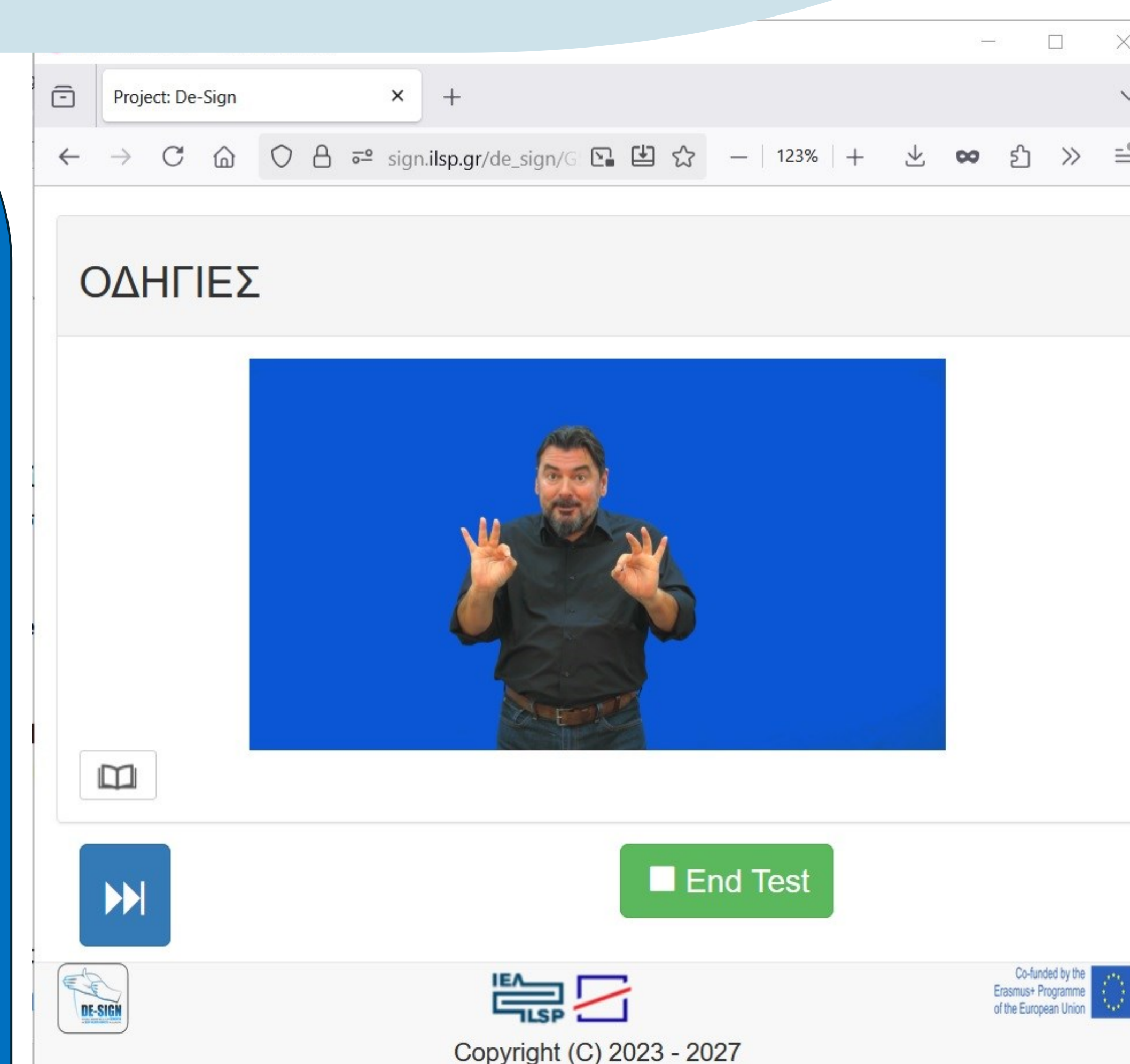
**Accessibility First:** Minimalist UI/UX designed to reduce cognitive load, intended for users at risk of cognitive decline.

**Features:**

- **Direct Interaction:** Instructions provided via high-quality videos in GSL/ÖGS.
- **Response Recording:** Participant answers are video-recorded directly through the platform.
- **Expert Review:** A restricted portal allows clinicians to score responses and generate automated PDF reports.

**Functionality:**

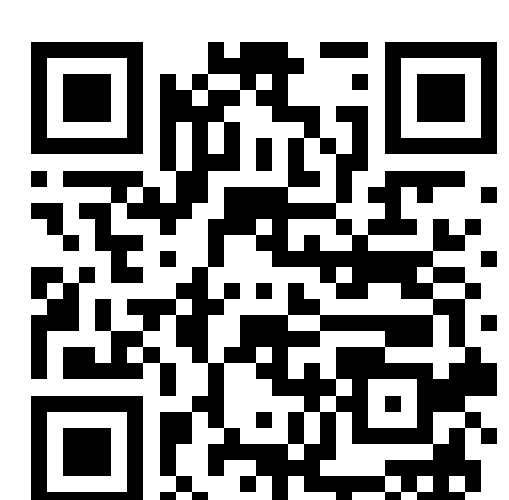
- Automatic video-recording of answers.
- Secure expert portal for scoring and PDF report generation.
- Full GDPR & Informed Consent compliance.



View of the layout pages on the De-Sign platform; the elicitation video of the orientation task on the Greek version.

## Conclusion

- ❑ **Impact:** The De-Sign platform addresses a health equity gap.
- ❑ **Key Takeaway:** The De-Sign Platform is a digital tool that allows Deaf older adults to access mental health services via early screening in their native language.



[https://sign.ilsp.gr/de\\_sign](https://sign.ilsp.gr/de_sign)