

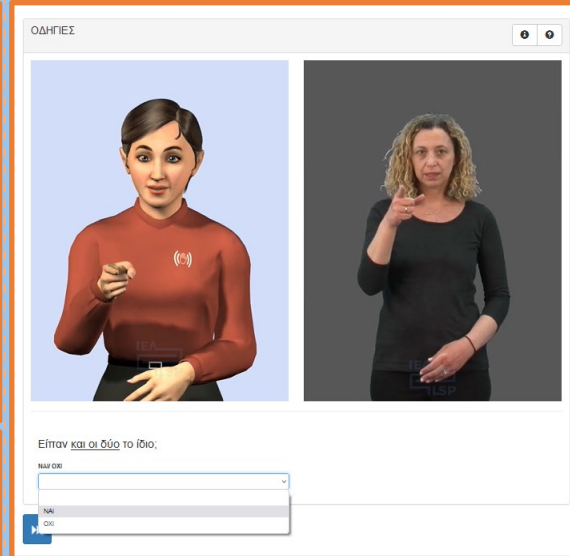
Signing Avatar Performance Evaluation within the EASIER Project

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User-informed signing avatar development

The use of avatars in signed communication can be implemented in multiple communication contexts permitting a significant degree of freedom in content creation and signer anonymization. Avatars offer the advantage of being flexible to editing changes of the signed content and anonymity of the user. These features enable avatars to serve as agents for various interactive environments and communication platforms. But how do human signers perceive avatar signing?

EASIER aims at creating a legible signing engine fully approved by the SL user community.



Framework Evaluation Survey

<https://sign.ilsp.gr/slt-eval>

• Goal

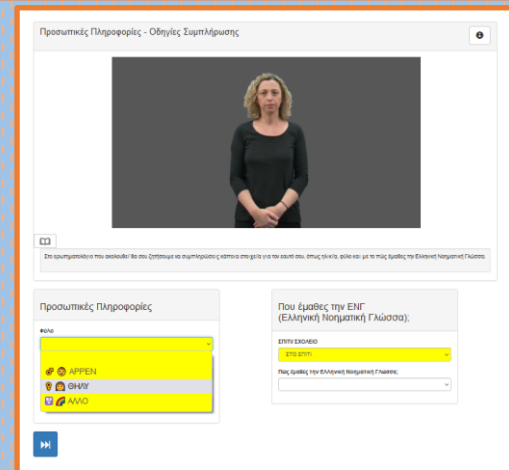
To identify how human signers perceive and evaluate the performance of an avatar's synthetic signing

• Implementation

- ✓ Shell environment incorporating an on-line questionnaire for feedback collection.
- ✓ Easy creation of targeted on-line questionnaires to be addressed to signer groups of different SLs
- ✓ Feedback collection on various aspects of synthetic signing technology

Aspects of the Pilot Questionnaire Application

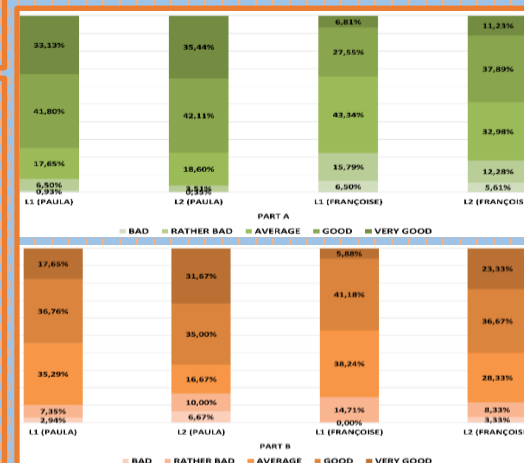
- Avatar expressivity via inspection of still images of avatar face, in various affect expressions.
- Avatar productions performing signs with varying articulatory formations
- Avatar performance in proper name fingerspelling tasks
- Avatar productions of short phrases composed from previously evaluated isolated signs integrated with signs not yet viewed by participants.



Multi-content continuous user-informed avatar development

Results of the pilot survey

- **32 participants (17 L1 & 15 L2 signers) x 19 sign occurrences** (good avatar performance is rated similarly by both signer groups / average performance gives room for varying ratings among signers)
- **608 Answers / Total preferences for Paula avatar: 478**



Next evaluation steps

User evaluation with **DGS**, **DSGS**, **GSL** and **LSF** combining:

- ☐ The EASIER on-line survey environment
- ☐ User focus groups

