

VisuoLab: Building a sign language multilingual, multimodal and multifunctional platform



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1. Background

Use of a web-based and sign-language-friendly VisuoLab platform for various purposes:

- Creation and publication of sign language materials
- Interactive online teaching and learning
- Sign Language Assessment
- Interpreting and Translation

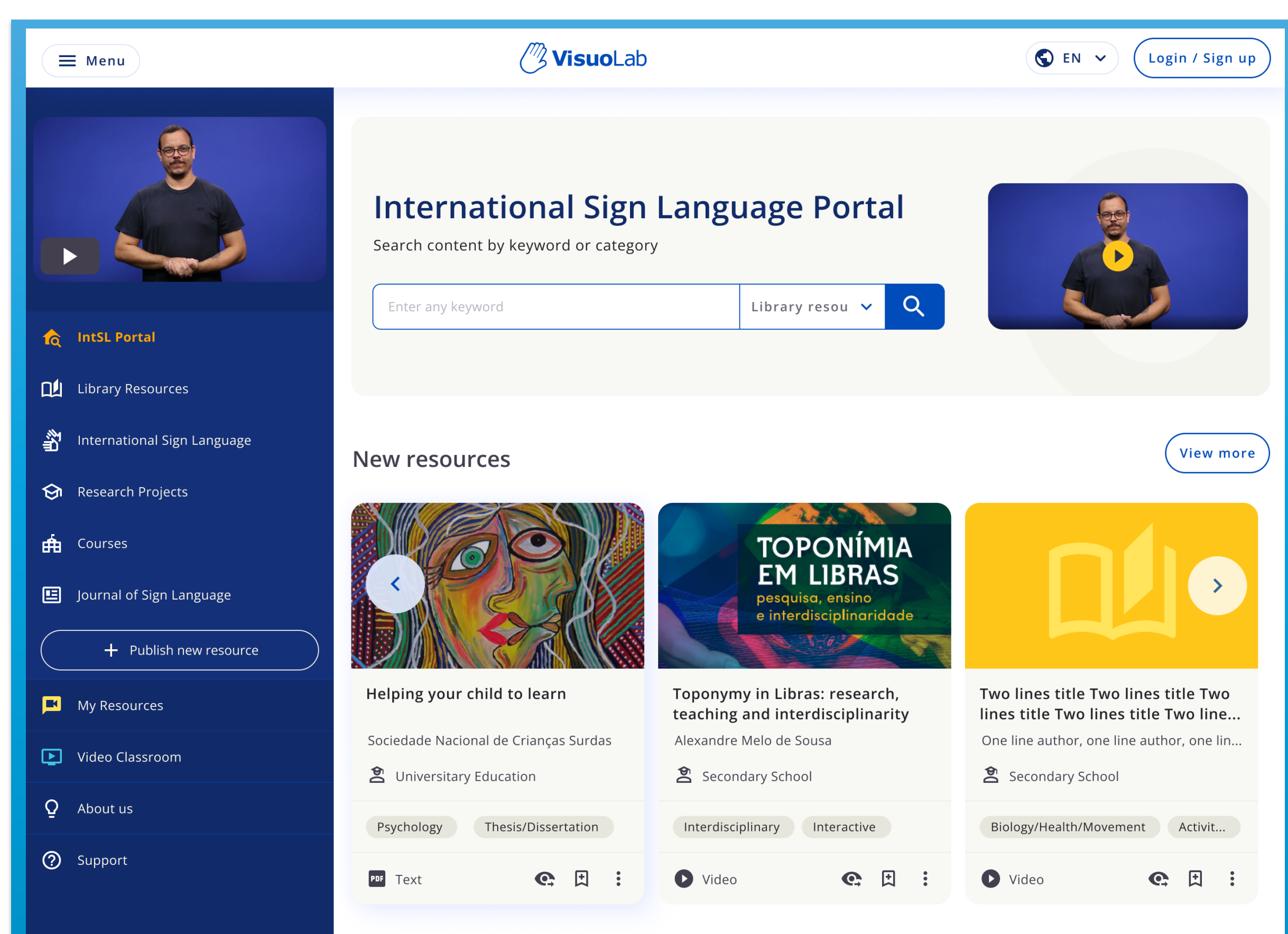
Core Philosophy: VisuoLab as a non-commercial & open source platform
Previous work: ProSign (ECML, Council of Europe) and Libras Portal



2. Design of VisuoLab as a multifunctional, multilingual and multimodal platform

- Creation and publication of sign language materials
- Availability, documentation and indexing of sign language texts
- Research and collaborative learning / teaching environments
- Collaborative interpreting and translation

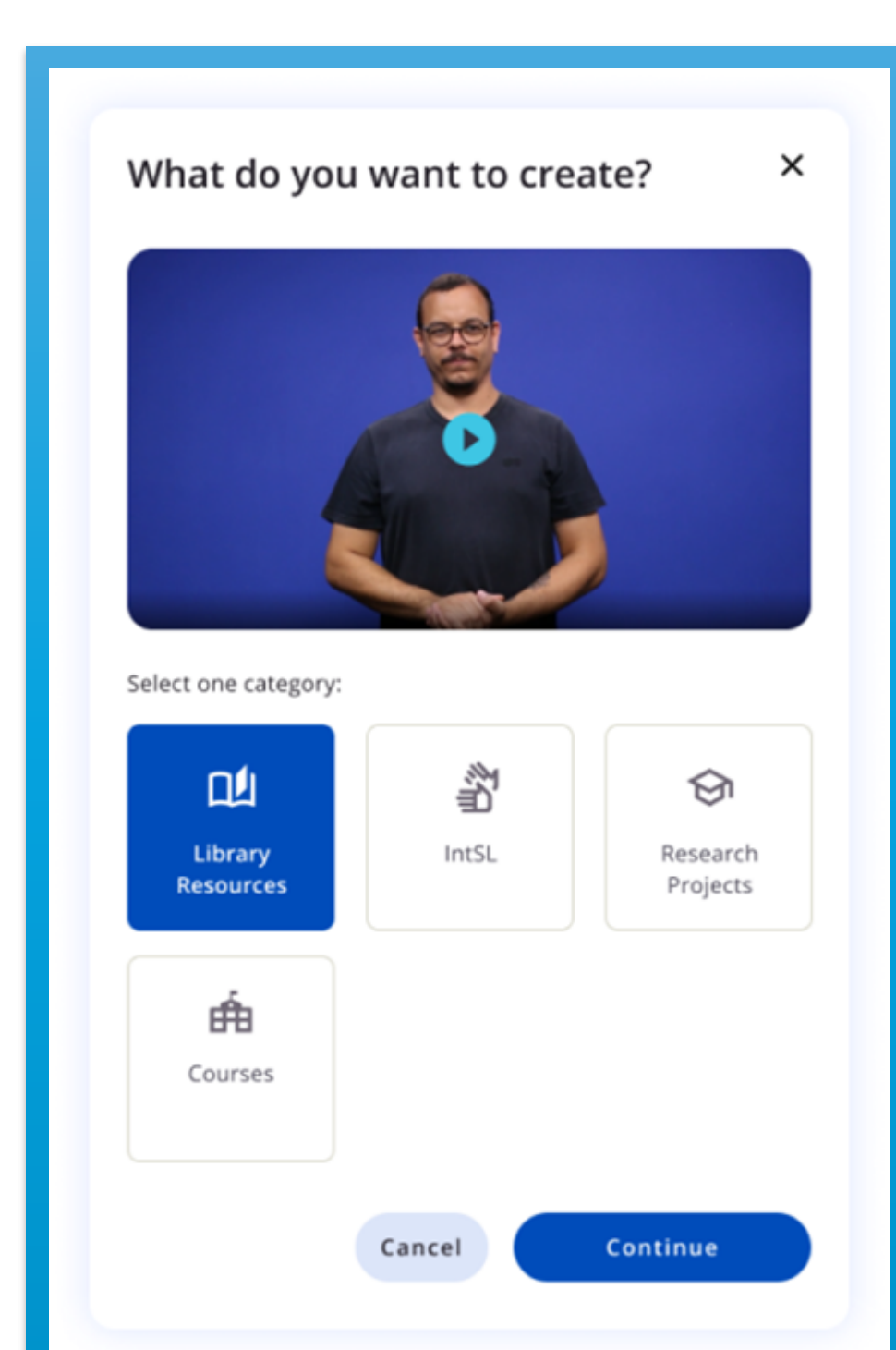
Multimodal and multilingual approach: use of visuo-gestural, audio-vocal, written and image modalities & multiple languages)



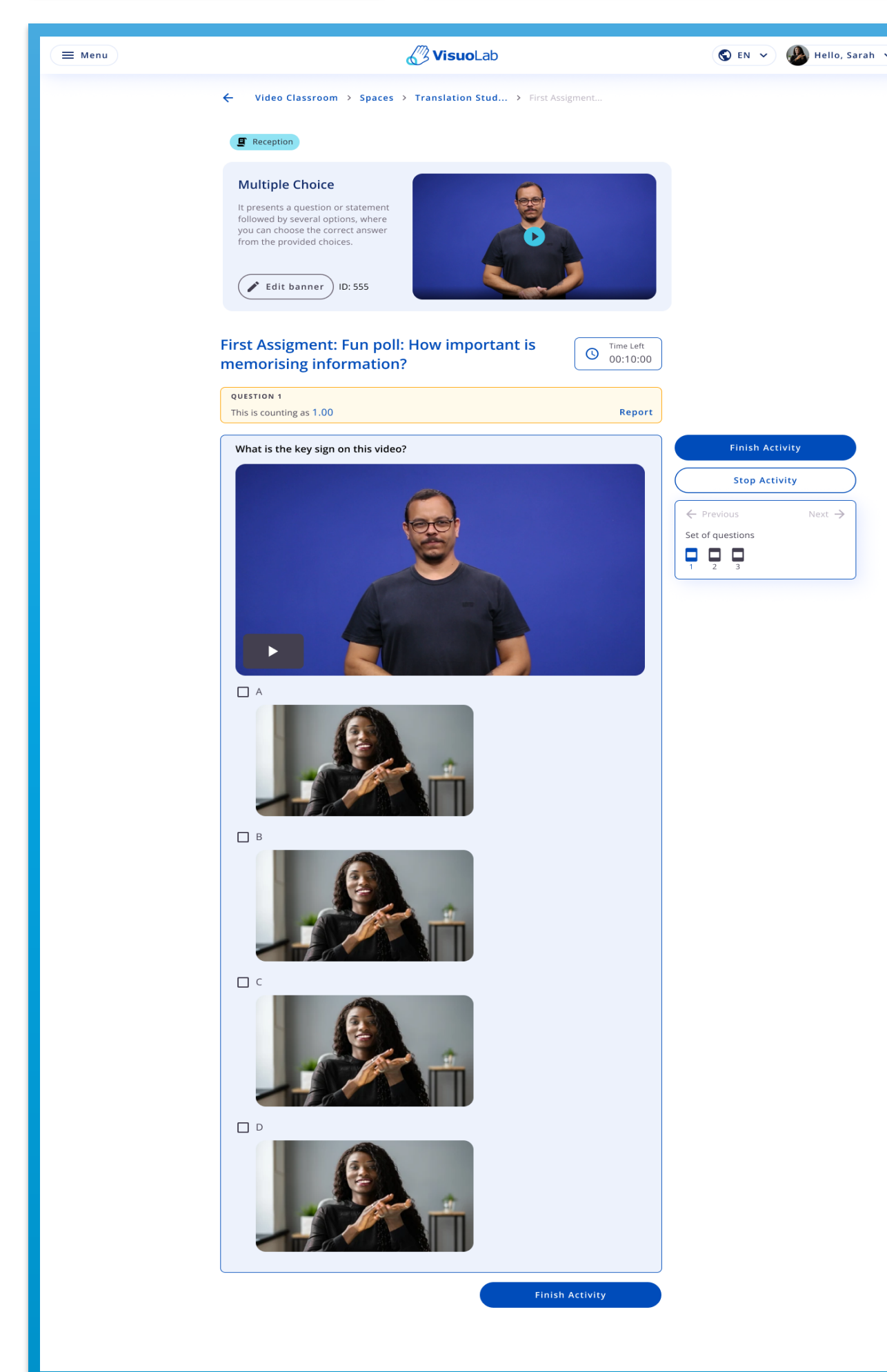
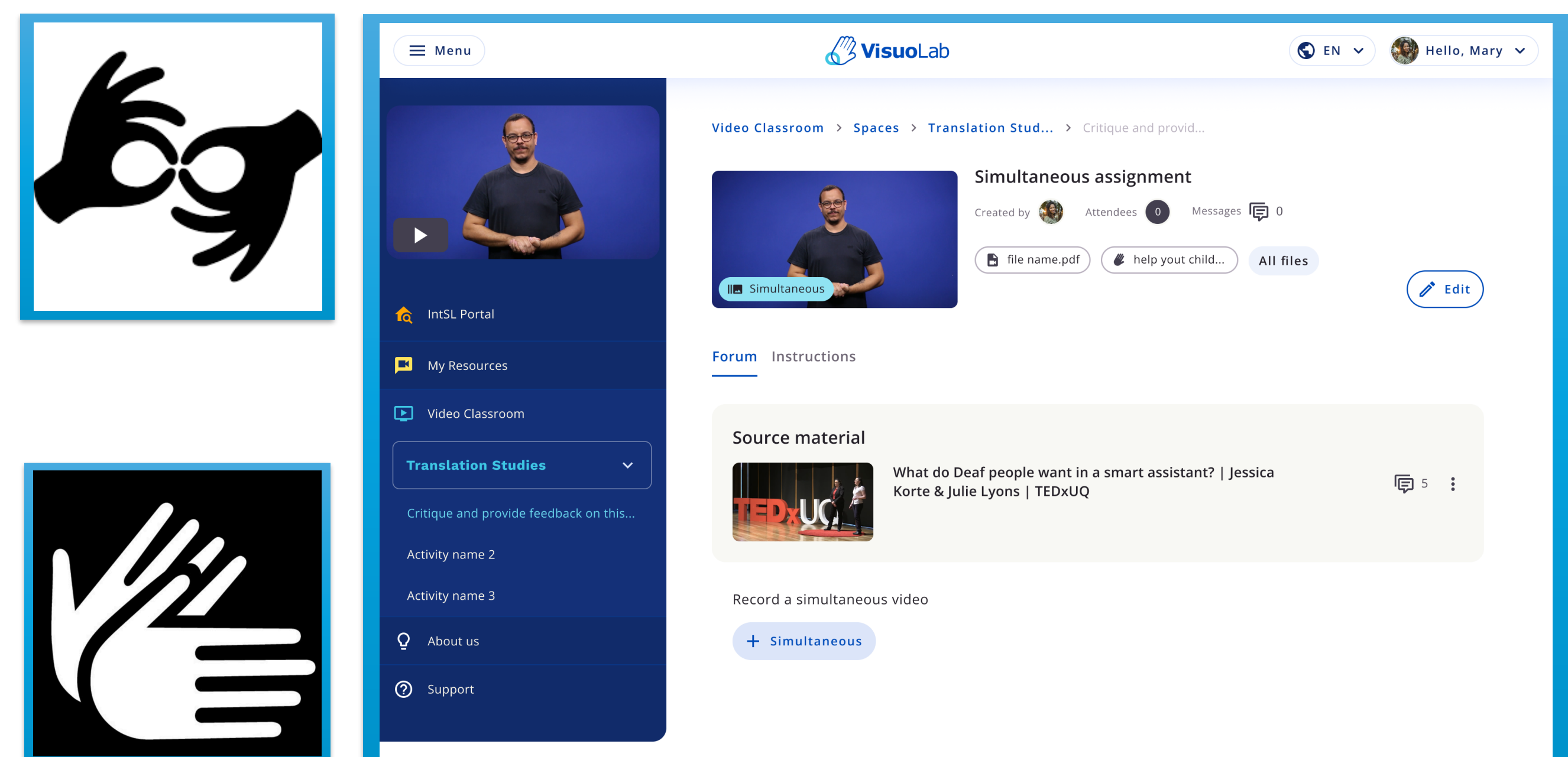
3. Creation & Publication of Sign Language Materials

Creation and publication of

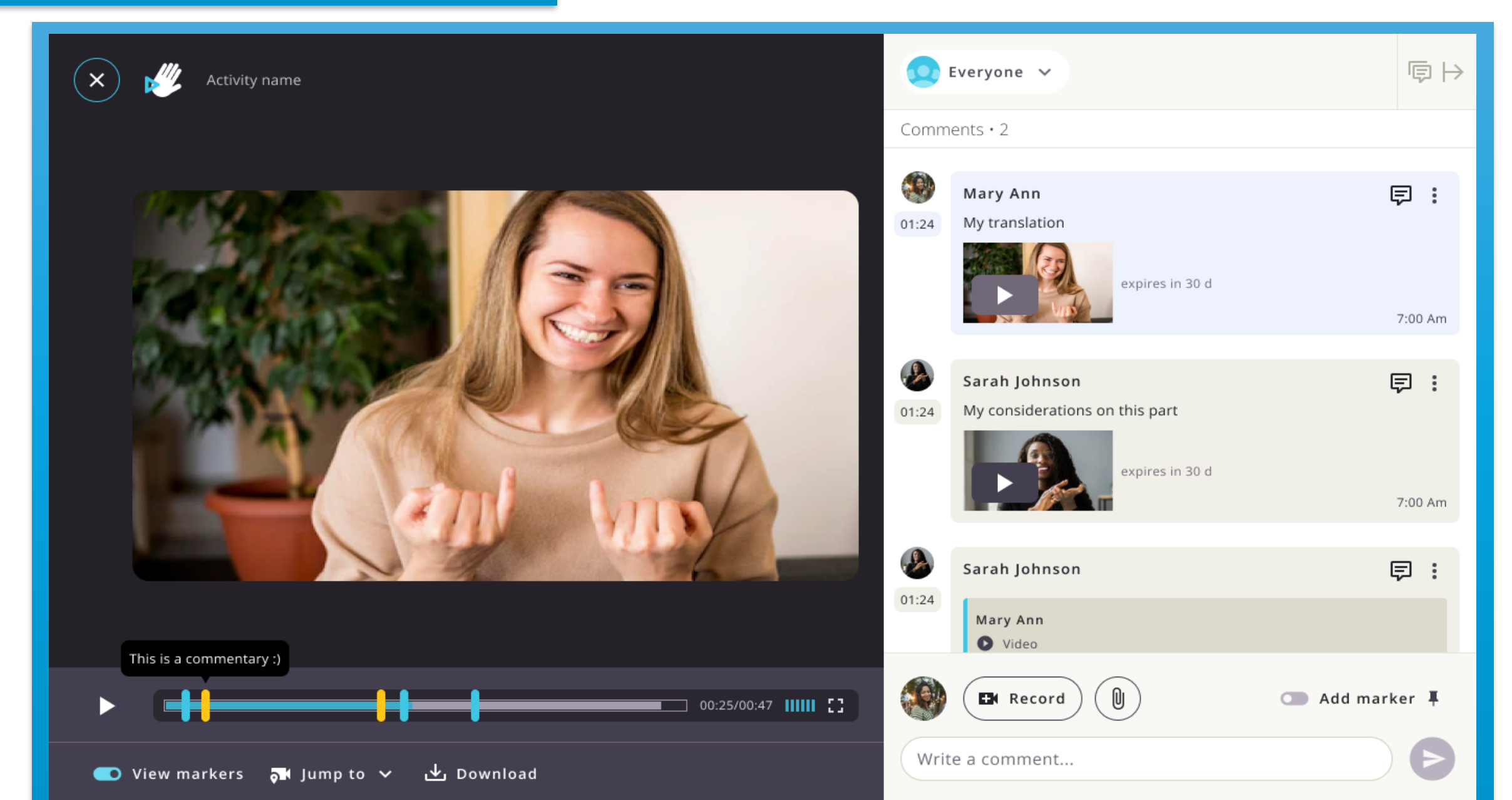
- video books,
- teaching and learning materials,
- signed papers / videos for language documentary and learning / teaching



4. Research, Assessment, Interpreting & Translation and Learning & Teaching in the Collaborative Learning Environment



- Interfaces for research, collaborative learning, teaching and assessment environments as well as translation and interpreting
- Assessment: Sign Language comprehension, production, interaction (CEFR) and interpreting & translation
- Provision of comments and feedback / suggestions in all modalities



5. Final remarks

- VisuoLab platform in form of a prototype is currently available.
- Involvement of Deaf experts, sign language instructors and interpreters/translators in all stages of development
- Some technical issues (e.g. video conversion, video storage and live stream) are remaining and will be sorted out.

6. Next steps

- Interface between VisuoLab, SignBank 2.0. and Sign Language Corpus
- Academic sign language journal (with review tools)
- Conference Interpreting platform as an additional module
- Sign Language Reference Grammar as an additional module
- VisuoLab as a Part of Cultural Heritage and Digital Humanities
- VisuoLab in Various Sign Languages around the globe