# Critical, intercultural, and digital literacies in sign language assessment: Insights from the DSGS receptive adaptive test

## EALTA 2026 Conference

Tobias Haug[1], Charalambos Kollias[2], Paraskevi (Voula) Kanistra[3], Regula Perrollaz[1], Katja Tissi[1], Sascha Thiemeyer[1], Sabine Kutschera[4] & Olaf Bärenfänger[4]

[1]University of Teacher Education in Special Needs Zurich (HfH)

[2]Polytomous Limited

[3]Trinity College London

[4]Leipzig University

13. June 2026

# Project background

**Part of Innosuisse Flagship**
**“Inclusive Information and Communication Technologies” project**

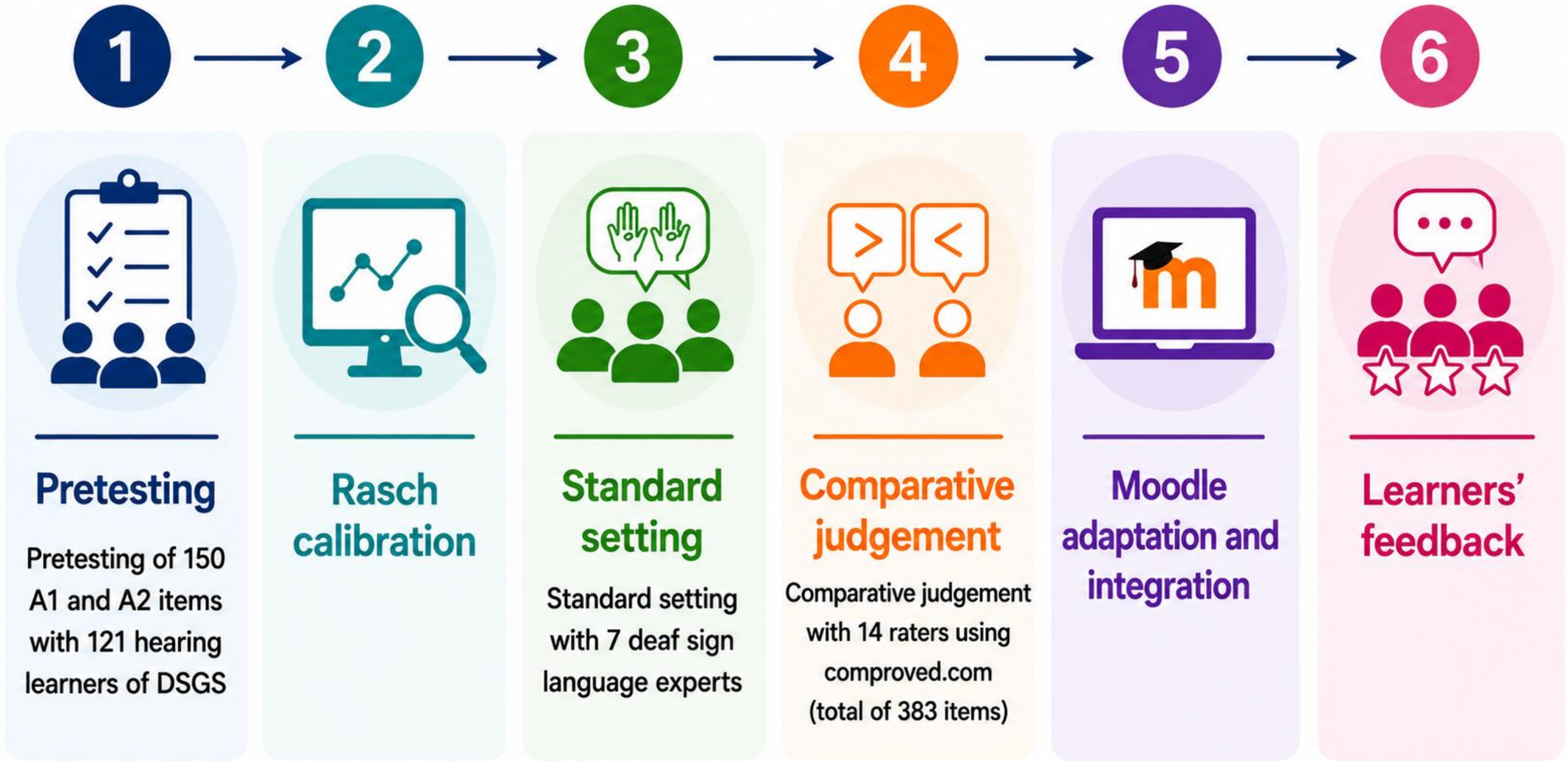
**5 subprojects**
The project is structured into five complementary subprojects.

**Current study:**
part of subproject 3 “Sign language assessment”

**Overall goal:**
from research to product or service

**Implementation partner:**
Swiss Federation of the Deaf (SGB-FSS)

# Project overview



# Literacies

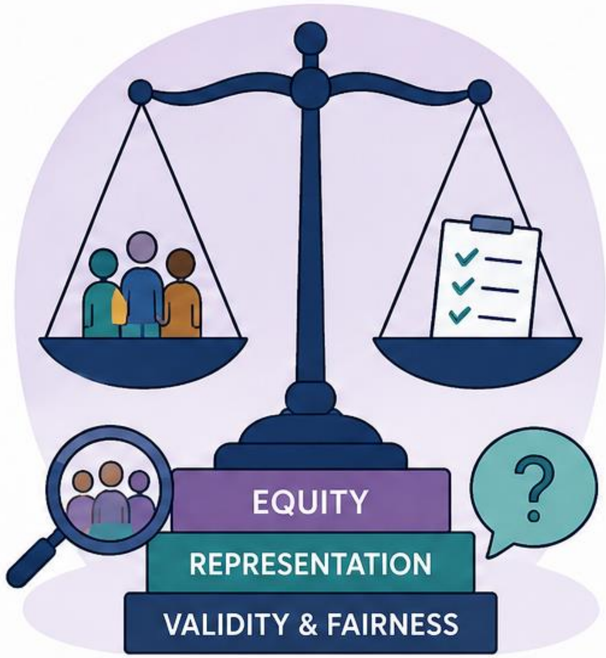
## INTERCULTURAL LITERACY

Understanding and valuing different cultural and linguistic perspectives to create fair and relevant assessments.

## DIGITAL LITERACY

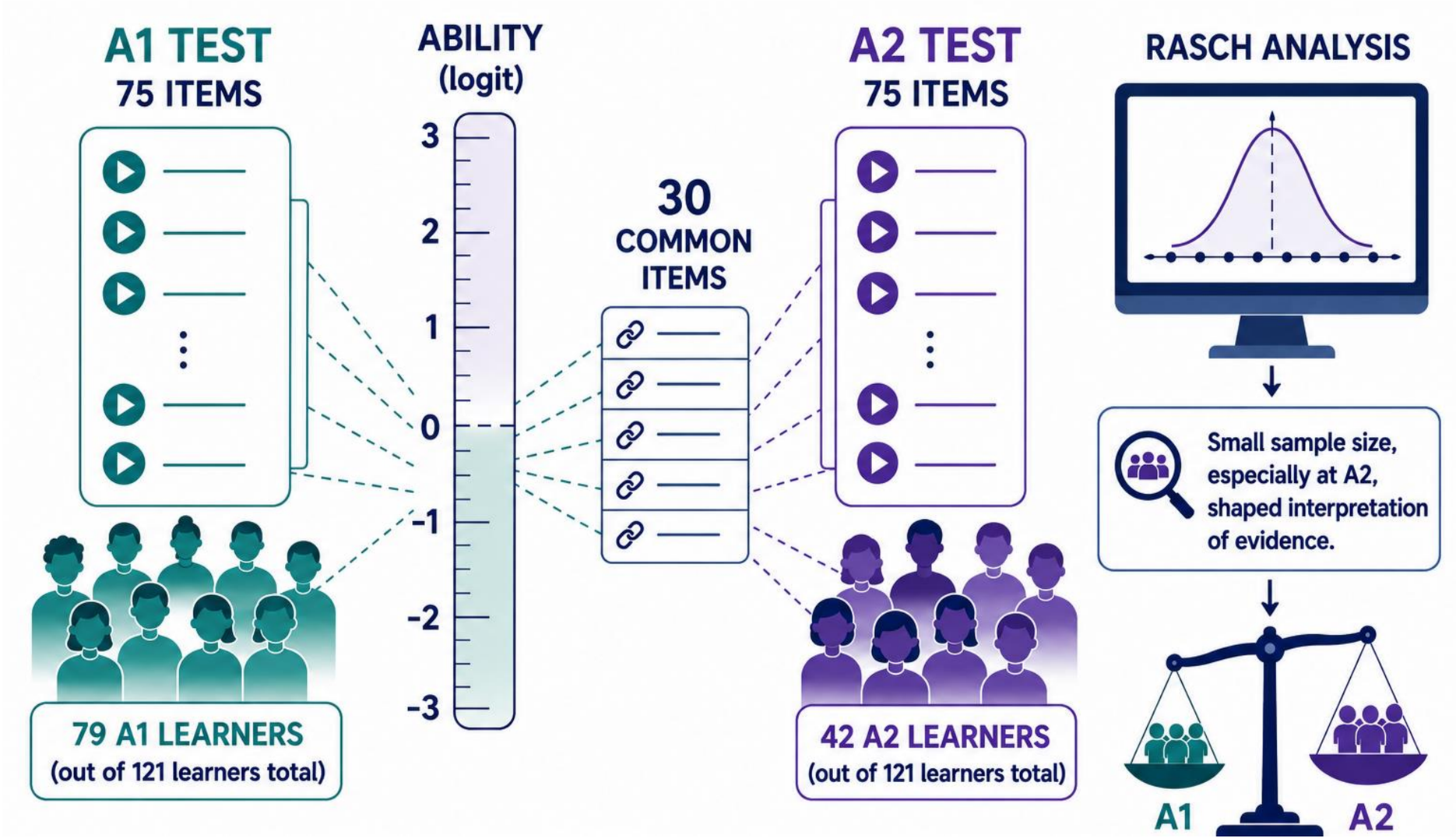
Using digital tools and data to design, deliver and interpret assessments effectively and responsibly.

## CRITICAL LITERACY




Questioning assumptions, recognising power and bias, and striving for equity, inclusion and social justice in assessment.

# Rasch calibration

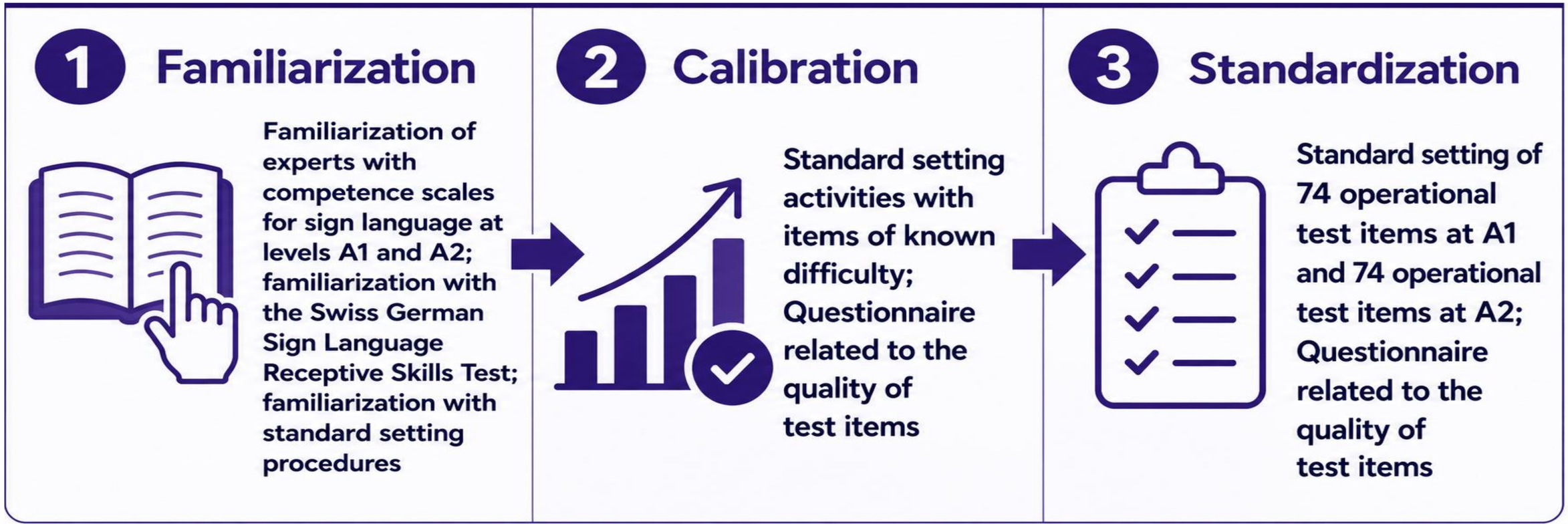


# Standard setting: Objectives & overview

1. **Determining individual item difficulty**
2. **Determining cut-scores for levels A1 and A2**
3. **Validating test items by means of expert judgments**

- Standard setting = Determining cut-scores for an individual item or a whole test
- Procedures followed the „Manual for Relating Language Examinations to the Common European Framework of Reference“
- Modified Angoff Method: Would a minimally competent person at level A1 answer an item aiming at A1 correctly?
- Number of answered items is equivalent to the cut-score for the level
- Three day workshop: January 30 to February 1, 2025
- Participants: 7 deaf experts in Swiss German Sign Language (DSGS)

# Standard setting: Procedures



# Standard setting: Lessons learnt

**1. Intercultural Literacy**

Positive feedback from sign language experts shows that standard setting works when expert knowledge of the language and its community is central.

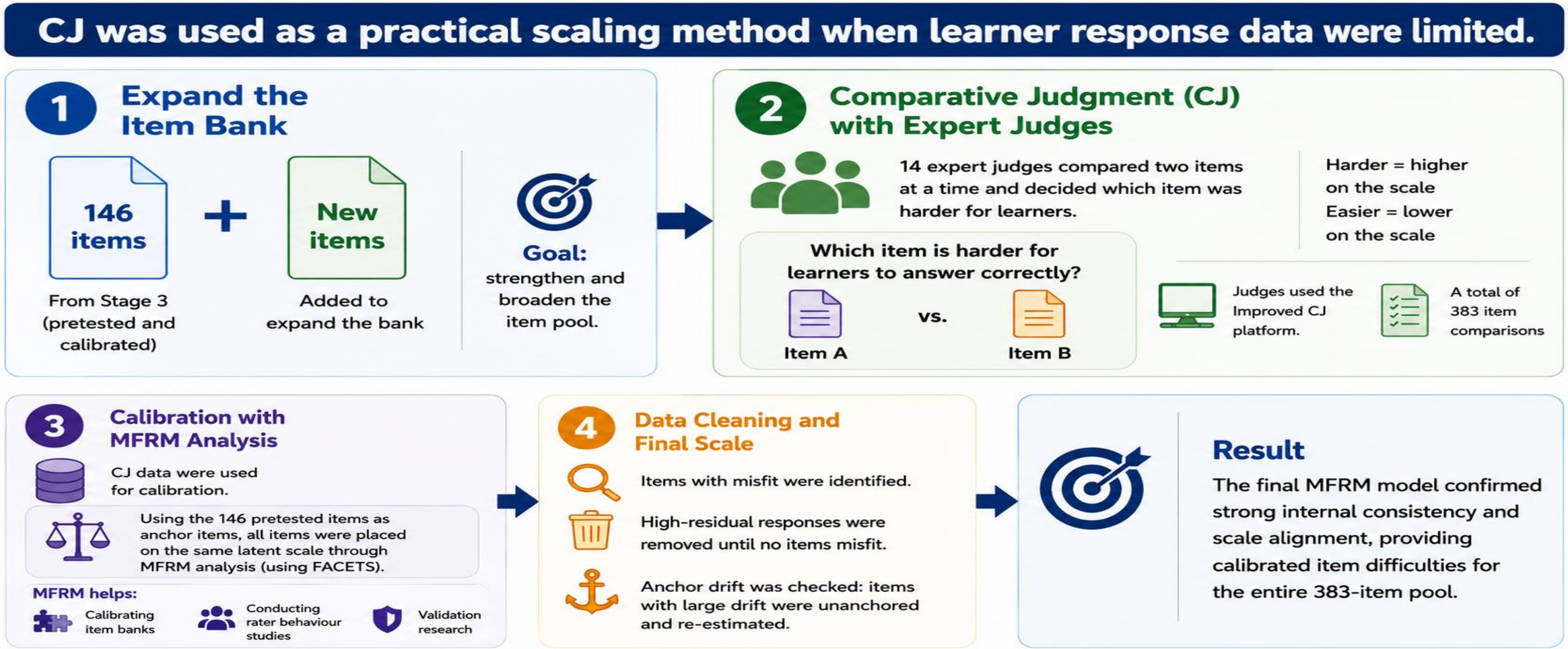
**2. Assessment Literacy**

CEFR familiarisation is essential – CEFR alignment cannot be assumed. Experts need shared training in CEFR levels and standard-setting logic.

**3. Professional Literacy**

CEFR should become part of the professional identity of sign language experts through continous education, training, and assessment practice.

# Comparative judgment



# Intercultural literacy in practice

- authentic signing
- visual-gestural cues
- naturalistic contexts
- expert interpretation of item appropriateness (During standard setting)

psychometric results had to be interpreted alongside linguistic and cultural knowledge.

assessing DSGS requires understanding communicative norms of the Swiss Deaf community not simply adapting spoken-language assessment models

# Digital literacy in practice

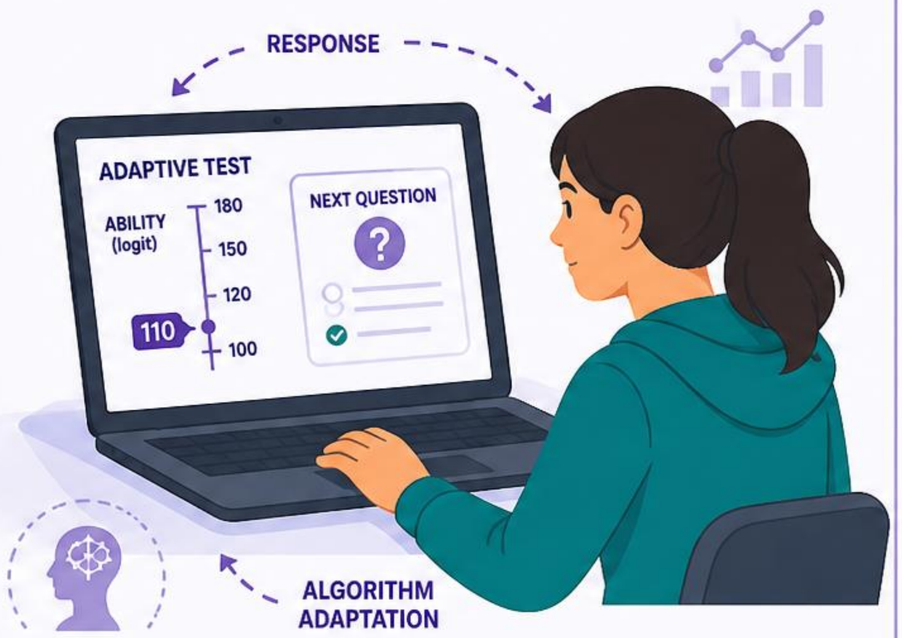
- Rasch friendly scale (i.e., 100 – 180)

- Starting difficulty (110)

- Lowest (100) – Highest (180)

- Minimum 4 questions – Maximum 20 questions

**digital literacy needed to make calibrated scale work inside adaptive algorithm**




digital literacy is more than knowing how to use Moodle, but how psychometric scales behave inside an adaptive delivery system

# Learner feedback

## KEY FINDINGS

### STRENGTHS

**High clarity**
Learners understand the test and instructions.

**Ease of use**
Learners find the test easy to navigate and interact with.

**Content relevance**
Learners perceive the content as relevant to their learning level.

### AREAS WITH MORE VARIABILITY

**Placement accuracy**
Perceptions varied among learners.

**Reflective impact**
Perceptions varied among learners.

Qualitative feedback highlights the test's receptive-only scope and the need for clearer feedback framing. This explains why some learners expressed more cautious views on these aspects.

## INTERPRETATION & IMPLICATIONS

**Learners clearly distinguish between the test's role and its limitations.**

**Placement Instrument**

Widely accepted as a basis for placement or confirmation of learning progress.

**Not a Comprehensive Measure of Overall Language Ability**

Several respondents cautioned against interpreting results as proof of overall language ability.

**Careful communication is essential.**

The test is accepted as a reasonable basis for placement, but results should not be interpreted as proof of overall language ability.

## OVERALL TAKEAWAY

The evidence supports the use of the DSGS placement test as a placement instrument within the intended A1–A2 context.

It identifies targeted areas for refinement and further investigation.

The study contributes an important component to the broader validity argument for the test.

# Critical literacy in practice

- small learner population
- few available deaf experts
- possible risk: over-relying on limited evidence
- etc.

technical decisions also equity decisions

critical literacy – deciding what counts as sufficient evidence when standard large-scale assumptions are unrealistic

# Conclusion & discussion

- assessment development in minorised languages needs more than psychometric calibration
- intercultural, digital, and critical literacies shape decisions at every stage – to be built into the process
- DSGS project offers practical model for developing defensible assessments in small language communities

**Adapting language assessment practices when traditional sample-size expectations not realistic**

# Funding & acknowledgement

Innosuisse: Swiss Innovation Agency

Thanks to

Deaf sign language experts

Implementation partner Swiss Federation of the Deaf (SGB-FSS)

# Thanks for your attention

**Contact: tobias.haug@hfh.ch**

HfH Interkantonale Hochschule
für Heilpädagogik

Schaffhauserstrasse 239
Postfach 5850
CH-8050 Zürich

www.hfh.ch