# Consolidating annotation standards for non-manual markers across sign language and gesture research

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**Organizers** 

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DFG (Priority Program Vicom "Visual Communication"): https://vicom.info/

## **Short workshop description**

In order to gain reliable, comparable data on visual cues in communication articulated by visible body parts other than the hands (for instance, facial expressions or movements of the head), we are holding a 2-day workshop that brings together researchers working on visual communication data both within the DFG priority program ViCom and beyond to further develop and refine annotation standards for non-manual elements that will complement annotation systems focusing on manual gestures, like the M3D system for gesture annotation and several annotation guidelines associated with sign language corpora.

A further goal is to put in place annual revision procedures for updating the annotation guidelines and integrating community-wide feedback. A standardized annotation system used widely within the visual communication research communities would provide researchers with a ready-to-use tool that allows comparison of non-manual behavioral data. Concrete outcomes of the project will be a joint publication and the development of an online platform with the annotation guidelines presented in multiple sign languages), training materials for new annotators, and an R package to analyze inter-rater agreement.

# Workshop Schedule

# Day 1

#### 9:00-9:55 Session 1: Introduction and Goals

How to organize the standardization of annotation guidelines for non-manual markers

- The need to agree on categories across disciplines, labs, and experts
- The need for training materials
- o The need for assessing inter-rater reliability
- o Overview of existing non-manual annotation systems
- o Integration with other tools focusing on manuals like M3D

## 10:00 - 11:15 Session 2: SignLab Amsterdam prototype for NMM guidelines

Summary of current prototype guidelines developed by SignLab Amsterdam and discussion of the first evaluation results. The prototype guidelines and a technical report with evaluation results will be made available to participants a few weeks before the workshop.

### 11:15 -12:00 Coffee break

## 12:00-14:00 Session 3: Group work on articulator-specific guidelines Part 1

In-depth discussion of specific tier-sets in small groups. Groups can propose improvements on the current guidelines, revisions and extensions of annotation categories.

#### 14:00-16:00 Lunch

### 16:00-17:00 Session 4: Group work on articulator-specific guidelines Part 2

Articulator-specific groups summarize their discussions and prepare to present them to the entire group.

### 17:00-18:30 Session 5: Group presentations Part 1

Two groups present their findings, followed by discussion and initial validation.

Workshop dinner at Ziryab

## Day 2

### 9:00-10:30 Session 6: Group presentations Part 2

The remaining two groups present their findings, followed by discussion and validation.

### 10:30-11:00 Session 7: Integration with M3D

Formulate a concrete proposal for how to integrate the various existing annotation guidelines from a user point of view within the M3D annotation scheme (annotated corpus, training materials, website, labeling manual, inter-rater reliabilities).

#### 11:00 -11:45 Coffee break

## 11:45-14:00 Session 8: Tutorial on evaluation methods

SignLab Amsterdam presents a preliminary version of an R script to analyze inter-annotator agreement (how to generate confusion matrices, how to compute agreement indices, etc.).

#### 14:00-16:00 Lunch

## 16:00-18:00 Session 9: Outlook – Where do we go from here?

We will discuss concrete next steps and a timeline for accomplishing the following tasks:

- Implement suggested improvements of the prototype annotation guidelines
- Finalize resources (R package) to quantify and analyze inter-rater reliability
- Develop training materials
- Evaluate the improved annotation guidelines and training materials
- Set up an online platform that provides access to all the materials
- Ensure accessibility of all the materials for researchers with different language backgrounds
- Integration with annotation standards for manual elements (M3D, standards associated with various sign language corpora)
- Joint publication