

Best Practice Protocol on the Use of Sign Language Avatars

Method

The research project «Best Practice Protocol on the Use of Sign Language Avatars» at University of Vienna (2021) was structured in two phases:

In phase 1, we created stimuli and conducted 10 focus group discussions. Then, we analysed the elicited material. Based on the results we compiled a first draft version of the Best Practice Protocol.

In phase 2, we conducted 10 expert interviews and integrated them into the Best Practice Protocol. The final result of this several months long, cooperative qualitative process is the Best Practice Protocol on the Use of Sign Language Avatars at hand.

Phase 1: Research with focus groups

In spring 2021, we conducted 10 focus group interviews, four with hearing participants and six with deaf participants (total: 34). On all 10 occasions, the same stimulus material was used.

Stimuli

The stimuli were specifically put together for these focus groups. We used four publicly available video clips with avatars that used Austrian Sign Language (ÖGS) (Source: SIMAX, see <https://vimeo.com/simaxavatar>). The first selection criterion was that the avatar was not older than two years, because avatars from before were of considerably worse quality. Further criteria were:

- Male as well as female avatar figures;
- Diverse text genres and text goals: informative, complex, soft-issue, emotional, ...;
- Avatar placement in front of still as well as moving background;
- Translation of a real human and his spoken text as well as translation presented solely by an avatar.

Eventually, one speech by a political leader, one informative, art-mediating text, one commercial, and short holiday greetings were selected. The four videos (0:22, 0:45, 1:43 and 2:15 minutes) were signed by two male and two female avatars.

Then, two deaf interpreters created and presented their own translations of the text in four twin videos. (It was a special challenge to create a translation that was the exact same length as the avatar-presented templates). The new video variants were edited into the same backgrounds/clips so that in both content and design they were identical to the avatar videos. Thus, four twin video pairs were used, some of which featured captions in German.



Example variation pair 1



Example variation pair 2

Both hearing and deaf focus groups were shown the stimuli in two blocks of two video pairs each. The variants were arranged so that each block showed first an avatar and then a human signer and vice versa. The hearing focus groups saw the stimuli in an adapted order with a video with audible spoken text first, so that they could watch the avatar/interpreter and did not have to read subtitles. In the first four focus groups with Deaf participants there was a coffee break between block one and block two.

Deaf participants

We conducted six focus groups with a total of 23 deaf participants (13 female, 10 male). Most participants had answered to a call distributed in Austria (in German and ÖGS) and nominated themselves. The call included the criteria 'deaf', 'interested in sign language avatars' and asked for registration online via SoSci where a number of basic questions were asked (age group, access to/acquisition of ÖGS, professional background). They all volunteered to participate, were genuinely interested in the topic and received no compensation. No one who registered was excluded. Only the fact that personal attendance in Vienna was necessary and some candidates had time or health issues meant that a total of 9 candidates could not take part. In order to include the age group above 70 and 80, we offered two focus group discussions in the context of the senior citizens meeting at the Viennese Deaf Club WITAF, which attracted 9 participants.

The **age groups** 20-30, 30-40, 40-60 and above 70 were represented with 4 to 8 people each. The oldest participant was 85 years of age.

Regarding **access to/acquisition of ÖGS** we asked if ÖGS was acquired from their parents, if it was the main language of daily use or whether ÖGS was not their first sign language.

Two participants acquired ÖGS as L1 from their deaf parents.

17 participants use ÖGS in their daily life.

And three participants grew up with another sign language than ÖGS, one of them only learned ÖGS a few years ago.

8 of the 17 participants who were in employment specified that they professionally work with ÖGS (the registration offered examples such as: translation, teaching, linguistics).

For linguistic reasons it was ruled out to conduct the focus groups in ÖGS via video chat. Due to pandemic-related extended lockdowns in Vienna, all groups had to be rescheduled several times, but in May 2021 the participants of the first four groups agreed to come – fully tested – to a three-hour meeting to the MediaLab of University of Vienna. In June, two more groups could take part at WITAF.

All six groups were moderated by a deaf, signing psychologist, Paulina Sarbinowska. Moderating the focus groups was her only role and function in this project so she could truly occupy a completely neutral role.

In the beginning, participants were informed that the video recordings were for the research project only and would never partly or in full be publicly shown. Furthermore, their

participation was anonymous, their names would not be made available. After this explanation, participants individually gave their consent to be videotaped under these conditions. We filmed with three (at WITAF with two) cameras. Cameras were controlled by two sign language competent people, one deaf, one hearing.

Hearing, non-signing participants

We conducted four focus groups with hearing participants (6 female, 5 male). Participants nominated themselves, volunteered to participate, and received no compensation. The only criterion – which was made explicit in the call – was “hearing with (nearly) no knowledge of sign languages”. In return for their participation, they were offered to ask any and all questions they had about sign languages. This offer was taken up by all participants.

The groups took place in April 2021 and due to pandemic-related lockdowns all groups were conducted via video chat (zoom). This proved sufficient for our interest but can certainly not be called ideal, because little dialogue evolved between the participants and everyone was predominantly focused on the moderator.

All 11 participants were active. Three got in touch afterwards and commented how interesting and worthwhile they had found it.

We thank all participants in the focus group discussions for their invaluable, important contributions. You provided the strong foundation for the present Best Practice Protocol for the use of Sign Language Avatars!

All 10 discussions were transcribed and analysed. All statements, comments and ideas relevant for the Best Practice Protocol were thematically grouped and based on this we created a first draft of the Best Practice Protocol. This first draft was made available to 10 experts worldwide, discussed with them and their comments and additions included in the text.

Phase 2: Expert interviews

Deaf as well as hearing experts from various (academic) fields with diverse views on sign language avatars were asked to participate in an individual interview via zoom. All of them agreed and could be interviewed.

About 7 to 10 days before the interview each expert received the first draft of the Best Practice Protocol. Some of them returned a commented version before the actual interview, others made notes. The main part of the guided interviews consisted of jointly reviewing the entire text while all comments and suggestions were discussed and typed - visible for all interview participants – directly into the document.

We would like to thank the following experts for the many constructive conversations and their valuable contributions:

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- Nadja Grbić, Department of Translation Studies, University of Graz, Austria.
- Thomas Hanke, Universität Hamburg, Germany.
- Helene Jarmer, president of the Austrian Association of the Deaf.
- Hernisa Kacorri, University of Maryland, College Park.
- Melissa Malzkuhn, Director of Motion Light Lab, Gallaudet University, USA.
- Christian Pichler, Austria.
- Antti Raike, Aalto University, Finland.
- Georg Tschare, founder and CEO Sign Time GmbH, Austria.
- Rosalee Wolfe, Institute for Language and Speech Processing ATHENARC, Athens, Greece.

We then reviewed all comments and individually integrated them into the text, thus merging 10 commented versions into one final version of the Best Practice Protocol on the Use of Sign Language Avatars (see <https://avatar-bestpractice.univie.ac.at>).

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