Insights from research on sign language tests

Sign language test research and application is an emerging field in the European and global context. Existing sign language tests, such as for Swedish or French Sign Language, target children or adult learners. One of the biggest challenges sign language test developers face in many European countries is that their respective sign language is often not well documented/researched. Collaborations and exchange between the communities of spoken language and sign language, such as this panel or previous presentations at the LTRC, are currently rare and their importance cannot be highlighted enough. In this panel, four different presentations will be delivered on the development and use of sign language tests for different group of learners, including the potential of web-based technologies for sign language test delivery.

Presentation 1 – Teaching and Assessing British Sign Language

The topic of this session is the UK community of people who are pre-lingually deaf and who use British sign language (BSL) to communicate. Ninety percent of deaf children are born in hearing families and hence the learning of sign language is by no means a matter of course. Although sign languages share many similarities with spoken ones, they do vary in significant ways. We will look at some of the key features of BSL and its varieties, both in terms of structure and dialect. The second focus is on the accreditation of sign language skills. The vast majority of candidates consist of hearing people who learn BSL as a second language in order to communicate with the deaf. Again, sign languages have unique features. While there are systems to annotate sign language, there is no written form of sign language as such. In the English educational system this fact has implications for the national status of BSL and its equivalence with spoken languages. But it also has implications for language learning and testing. The question is whether and how we can transfer practice established in spoken languages to the assessment of sign languages and create positive washback on the teaching and learning of BSL.

Dr Philida Schellekens, Schellekens Consultancy, UK

Dr Philida Schellekens is a specialist in adult foreign language learning. While her work has been largely in spoken languages, especially English, she has 20 years’ experience of working with the deaf. She has worked on the accreditation of BSL and wrote the UK National Occupational Interpreting Standards, which are used by both spoken and sign language interpreters. She has
Presentation 2 – Elicited imitation tasks (EITs) as a tool for measuring sign language proficiency in L1 and L2 signers

In previous literature, elicited imitation tasks (EITs) have been discussed with regard to the effect that memory skills have on performing tasks. More recent studies have shown, however, that EITs are a reliable tool for measuring language proficiency for L1 users and L2 learners (Klem et al., 2015; Gaillard & Tremblay, 2016). There have also been recommendations for minimising the negative impact of poor memory skills, for example, by shortening sentence structures.

In contrast to spoken languages, which are merely linear in structure, sign languages operate in the gestural-visual mode, which relies on a visual pattern that allows for a degree of simultaneity in production. For instance, when signing a single lexical sign, the shape, movement and location of the hand combine to express phonological properties at the same time. Additionally, there are more complex signs with internal morphological structures that involve multiple hand shapes, movements and locations. Such features need to be taken into account when valid and reliable EITs are developed for signed languages, and in recent years, there have been a growing number of sign language tests developed within the framework of EITs, e.g. American Sign Language, ASL-SRT (Hauser et al., 2008), and Swedish Sign Language, SSL-SRT (Schönström, 2014).

In this talk, we will discuss sentence structure as well as the scoring method of the tests we have developed on two EITs for Swedish Sign Language: SSL-SRT, which is targeted for L1 signers, and SignRepL2, targeted for L2 signers. We found that for the L2 group, complex (single) signs can be used as test items, and there are qualitative differences related to the linguistic properties of signs. We will also describe different scoring paradigms for the respective tests. Our results will be presented and discussed in relation to the EIT theoretical framework.

Prof Krister Schönström, Stockholm University, Sweden

Professor Krister Schönström is an Associate Professor in Linguistics at Stockholm University. He obtained his doctoral degree in Swedish as a second language for the deaf from Stockholm University in 2010. His research interests include issues related to bilingualism in deaf individuals and language learning, with a special focus on both the bimodal aspect of their bilingualism and the visual aspect of language learning. He has been involved in several projects related to sign language test development.

Prof Ingela Holmström, Stockholm University, Sweden

Professor Ingela Holmström is an assistant professor and researcher at Department of Linguistics at Stockholm University. She obtained his doctoral degree in Education from Örebro University in 2013. Her research is directed towards communication issues in the interactions...
between deaf, hard-of-hearing, and hearing people, both inside and outside of school contexts. She has a special interest in deaf education and bimodal bilingualism.

Presentation 3 – Assessing morphosyntactic skills in LSF (French Sign Language): How and why focus on predicative structures?

Up to now, no reference tools can be found to assess LSF competence and identify potential SLI. This is due to i) the paucity of linguistic descriptions of LSF, in terms of first language acquisition and developmental stages in children, and ii) the failure of previous attempts to adapt tests from other Sign Languages (SL) (no cross-linguistic, standardised tests are available, Courtin & al., 2010; Haug, 2008). Just as in spoken language, SLI in SL is characterised by heterogeneous language skills. Yet the speech modality induces a number of differences. Morphosyntactic disorders in SL can be linked to the way the signer uses: semantico-syntactic space (Quinto-Pozos, 2011), agreement morphology and classifier system (Morgan et al., 2007). In a previous study (Puissant-Schontz, 2013), we created a pilot assessment tool, which proved insufficient to investigate predicative structures, due to the lack of overall description of the predicative system. This paper aims at filling this gap, and proposes a more fine-grained classification of predicative structures in SL. After a corpus analysis of different speech situations, we select formal features in order to classify predicates: i) action predicates: manual contact with the body, manual orientation, manual movement (with a change of grammatical space), and configuration; ii) existence predicates: standard sign, gaze, chest movement, pointing, classifier; and iii) property assignment predicates: standard sign, facial expression and classifiers. We present hypotheses on the impact of the type and the number of clues in the acquisition. We then proceed to work out an assessment tool for 4 to 10 year-old children, with reception and production tasks, with a view to test sign language acquisition and diagnose potential SLI or delayed acquisition. The assessment tool could also be used as a basis for remediation protocols. And the classification of predicative structures could be used in other SLs.

Laetitia Puissant-Schontz, Université Paris Nanterre & Laboratoire MoDyCo – CNRS UMR7114, France

Laetitia Puissant-Schontz is a speech and language therapist working with deaf children (native signers with sign language deficit/disorders). As a PhD student, she is working on the description of LSF predicative structures from a linguistic and developmental point of view.

Presentation 4 – Web-based sign language assessment: Challenges and innovations

Due to the increased demand to assess sign language learning in the context of secondary and tertiary education in many European countries, web- or mobile-based assessment solutions can provide a valuable resource for sign language learning and assessment. Most of the existing sign language online tests have been designed for specific tests only, whereas the newly developed
sign language assessment portal aims at integrating different kinds tests (e.g., receptive, expressive) with different kinds of tasks and response formats. A preliminary version of this portal has been used within the EU-funded project SignMET. In the first part of the presentation, some key features of the portal will be presented, followed by a discussion on advantages and disadvantages as well as ethical issues in mobile-based sign language testing. Additionally, the potential of natural sign language processing (mostly automatic sign language recognition) and its value for sign language assessment will be addressed.

Prof Tobias Haug, Interkantonale Hochschule für Heilpädagogik, Switzerland

Professor Tobias Haug is director of the sign language interpreting training program in Zurich since 2004 and owner of the company Sign Language Assessment Services. He has been involved in numerous European and national research and development projects on sign language testing, with a focus on new technologies. He is also currently a student in the distance master programme in language testing at Lancaster University.