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Scoring sign language vitality: Adapting a spoken language survey to target the endangerment factors affecting sign languages

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This article explores factors affecting the vitality/endangerment levels of sign languages, and how these levels were assessed through an international collaboration using a systematic scoring scheme. This included adapting UNESCO's Linguistic Vitality and Diversity survey and developing a system for determining endangerment levels based on the responses. Other endangerment scales are briefly explored along with UNESCO's, and the survey adaptation and systematic scoring processes are explained. The survey needed to be carefully adapted because even though many spoken language procedures can be also used for sign languages, there are additional challenges and characteristics that uniquely affect sign language communities. The article then presents the vitality scores for 15 languages, including both national and village sign languages, and the major factors threatening their vitality. The methodology of scoring based on averages is innovative, as is the workflow between the questionnaire respondents and scoring committee. Such innovations may also be useful for spoken languages. Future efforts might develop best practice models for promoting sign language vitality and compile diachronic data to monitor changes in endangerment status. The findings can also inform policy work to bring about legal recognition, greater communication access, and the protection of deaf signers' linguistic and cultural identity.

1. Introduction and background To understand human language, we must study the diversity of its forms and manifestations. But this diversity is drastically diminishing, and many of the world's languages are currently endangered. This threat does not only concern spoken minority languages; signed languages are in similar, possibly even more precarious situations. To study threats to linguistic vitality and diversity, researchers must consider idiosyncratic local factors, general tendencies, and the interaction between the two (cf. Comrie & Jaenecke 2006).

For a long time, sign languages in general have been considered as inferior to spoken ones, and sign linguists have worked against great odds to establish the discipline and to prove the equality of sign languages as natural and complex human languages (e.g., Stokoe 1960; Klima & Bellugi 1979; Petitto 1994). In its beginnings, sign lan-

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guage research focused on western sign languages of larger urban deaf communities, in particular American Sign Language (ASL).

More recently, small-scale signing communities in rural settings with a high incidence of deafness have been discovered, e.g., in Ghana (Nyst 2007), Thailand (Nonaka 2007), and Bali (Marsaja 2008). Their sign languages, often called *village* or *rural sign languages*, appear to be linguistic isolates, unrelated to the official sign languages of their countries (Zeshan & de Vos 2012). Their emergence, courses of development, and sociolinguistic settings differ considerably from those of urban sign languages. Many village sign languages exhibit unusual structural features, challenging assumptions about language universals, and a number of them were investigated in the EuroBABEL consortium project 'Endangered Sign Languages in Village Communities' (2009–2012) led by the International Institute for Sign Languages and Deaf Studies (iSLanDS) at the University of Central Lancashire (UCLan) in Preston, UK.[1] Rapid social, demographic, and economic transformations, and especially contact with larger urban sign languages, are seriously threatening the survival of village sign languages. Some have died out already (e.g., Urubu Kaapor SL[2] and Martha's Vineyard SL; Groce 1985).

Endangerment concerns not only rural sign languages but also larger national sign languages (see e.g., McKee 2017; Wilcox, Krausneker, & Armstrong 2012; De Meulder 2017). The closure of deaf schools and deaf clubs in developed countries has had the effect of dispersing and isolating signers, reducing opportunities to acquire and improve signing skills (e.g., Ladd 2003; Padden 2008). The proliferation of texting and emailing has increased reliance on written languages, though webcam technology now enables people to communicate in sign language across long distances. This technology and the modern upsurge in international air travel has been harnessed by some deaf community members as a way to engage in cross-cultural signed communication and exploit multilingual skills and strategies (e.g., Zeshan 2015; Byun et al. 2017; Zeshan & Webster 2019).

Some of the factors contributing to sign language endangerment are similar to the factors affecting minority spoken languages, such as socio-political oppression. Others are specific to sign languages, such as the disappearance of sign languages from schools, the increasing use of cochlear implants,[3] and the dearth of support and

[1]The authors are very grateful to the iSLanDS Institute at UCLan, as well as the United Nations Educational, Scientific and Cultural Organisation (UNESCO) and the Foundation for Endangered Languages (FEL). This work and the present article would not have been possible without the immense dedication of these organisations, and the many individuals who generously contributed their time and knowledge by providing detailed data on the situation of sign languages all over the world. We greatly appreciate the hard work of the international scoring committee, which includes Kang-Suk Byun, Nick Palfreyman, Cesar Ernesto Escobedo Delgado, and Anastasia Bradford. We are especially indebted to the many deaf signers who have tirelessly provided education and information on their sign languages. It is their expertise and passion above all that drives this work forward.

[2]https://www.ethnologue.com/language/uks. (Accessed 29 May 2018).

[3]A cochlear implant is an electronic device, implanted through surgery, which can enable deaf or hard-of-hearing people to receive and process sound signals into the auditory nerve and help them to understand and acquire spoken language. In some countries, the majority of children born deaf receive a CI (see https://www.svd.se/fragor–svar-om-cochlea-implantat; Accessed 21 May 2018). Apart from technical problems (e.g., difficulty in filtering background noise), many deaf community members express concerns towards the increasing use of CIs as a threat to their linguistic and cultural identity, especially if implanta-

infrastructure for deaf children and families who want to sign (e.g., Okalidou 2010; Anglin-Jaffe 2013). Despite this alarming situation, sign languages have for a long time been omitted from documentation efforts on the one hand and from policies and campaigns for language protection on the other. As they form an integral part of the world's linguistic diversity and multicultural landscape, their inclusion in language endangerment surveys is essential. Mapping and monitoring the status of endangered sign languages form an important base for developing campaigns to promote signers' rights and lobby for sign language recognition and communication access for deaf people.

The present article addresses this need by exploring factors affecting the vitality levels of sign languages, and how these levels have been assessed for several languages through international collaborative work, using a systematic numerical scoring scheme. This involved adapting UNESCO's Linguistic Vitality and Diversity survey to make it suitable for sign language data and developing a system for determining endangerment levels based on the questionnaire responses. §2 covers some of the other scales for rating language vitality and previous work in this area, and then goes into more detail about UNESCO's survey and endangerment levels. §3 explains how and why the survey was adapted to be used for gathering data on sign languages; the process of collecting and evaluating this data is discussed in §4. In §5, the results of this work are presented, starting with the 15 languages rated so far and their scores (§5.1), moving on to a specific focus on the threats encountered by village sign languages (§5.2) and national sign languages (§5.3), and ending with a summary of the general trends discernable from the data (§5.4). §6 concludes the paper by discussing future perspectives in terms of the further research required as well as how these findings can inform policy work to implement greater protection for these languages and their communities.

2. Scales for measuring sign language vitality To provide some background context for the discussion of how sign languages were assessed, this section gives a brief overview of attempts to measure language vitality (§2.1) and a summary of UNESCO's characterisation of language endangerment through its Atlas (§2.2).

2.1 Assessing language vitality Systematic measurement of language vitality began in earnest in the early 1990s (e.g., Fishman 1991) and has been carried out for the purposes of preservation and to advance research into linguistics, cultural heritage, ecology, identity, human rights, and education (Sallabank 2010:57–63). Fishman (1991:81) portrays such measuring as an essential part of reversing language shift (RLS), noting that RLS

> involves the authoritative allocation of scarce resources, such as intelligence, funds, time, effort and implementational power, to the solution of

tion and speech therapy are done at the expense of sign language acquisition. Many studies confirm that early sign language acquisition supports the development of spoken language in CI-implanted children (e.g., Davidson, Lillo-Martin, & Chen-Pichler 2014).

> language status problems, i.e. to problems that are due to the shrinking number of users that a language has or to the meagre importance of the uses with which it is commonly associated […]. Threatened languages […] are languages that are not replacing themselves demographically, i.e. they have fewer and fewer users generation after generation and the uses to which these languages are commonly put are not only few, but, additionally, they are typically unrelated to higher social status (prestige, power) even within their own ethnocultural community, this being a reflection of the relative powerlessness of the bulk of their users.

However, the way in which scholars define *threatened* and *endangered* varies across the literature, as pointed out by Whalen & Simons (2012:163). They range from being strictly defined as meaning that the language is not usually being passed on to the next generation (as in the UNESCO Atlas, described in §2.2), to a weaker definition meaning that the language has vitality at the moment but is at risk within a few decades of not being passed on to children anymore (Krauss 1992, as cited in Whalen & Simons 2012:163). When the weaker sense is used, the word *moribund* is employed for the stricter meaning, to describe languages that are not being passed down at all (163).

It is notable that vitality scales differ in whether they are "positive" or "negative". Some attempts to classify the endangerment of languages have been negative, i.e., a higher rating or number means the language is more endangered; others are positive, i.e., a higher rating means the language has more vitality. Krauss (2007) uses a positive scale where "safe" languages are rated as A+, and endangered languages are rated A ("stable"), A- ("unstable" or "eroded"), B ("definitely endangered"), C ("severely endangered"), and D ("critically endangered"). The final rating of E is for extinct languages. Fishman (1991) recommends the Graded Intergenerational Disruption Scale (GIDS), a negative classification. He compares the categorisation or rating of vitality levels to the Richter scale for earthquakes: "High numbers are indicative of stronger tremors, i.e. of greater disruption of the established, normal geological strata and, accordingly, of greater threat to those living in the vicinity of the quake" (Fishman 1991:87). Likewise, GIDS rates languages on a scale of 1 to 8, to measure "sociolinguistic disruption", with higher numbers indicative of greater disruption and a "more severe or fundamental threat to the prospects for the language to be handed on intergenerationally" (87). GIDS is implicational in that a language with a score of 7, for example, also features all of the endangerment characteristics of scores 1 to 6 (87). This scale was the basis for the Expanded Graded Intergenerational Disruption Scale (EGIDS), which was created by Lewis and Simons (2010) and has 13 levels. EGIDS is designed to be inclusive of any language, even those that no longer have any speakers and those that are currently undergoing revitalisation. Level 0 is for large-scale international languages, and level 10 is for extinct languages; levels 6 and 8 are subdivided into two each, making 13 levels in total (Lewis & Simons 2010:110–113). To determine a language's level, EGIDS uses five questions about

"identity function, vehicularity,[4] state of intergenerational language transmission, literacy acquisition status, and a societal profile of generational language use" (Lewis & Simons 2010:118).

Bickford et al. (2015) discusses adapting EGIDS to make it suitable for sign languages, including allowing for their different trajectories of intergenerational transmission (e.g., most signers learn the language from people outside their family), and effects stemming from institutional support, education, and literacy. For instance, although written literacy may boost the vitality of a spoken language, a sign language's vitality is more influenced by support from schools and the creation of resources and literature (519). Therefore, the question of which sign language (e.g., a small-scale indigenous one or a national one) is being used in educational institutions is crucial (520). Bickford et al. point out that additional factors must be taken into account when rating sign language vitality, such as the prevalence of deafness in a particular area, and the uptake of technological changes aiming at reducing the incidence of deafness. When the decrease in deafness is causing the language community to disappear, Bickford et al. (522) suggest placing the sign language at level 6b, which is defined in EGIDS as "threatened". This means that "only some of the child-bearing generation are transmitting it to their children" (Lewis & Simons 2010:110), and "it is losing users" in the case of sign languages (Bickford et al. 2015:516). They also mention that sign languages have qualities of regenerative resilience that spoken languages often lack, leading to national sign languages in particular being able to survive due to the themes of "folk explanations" (Padden 1990). They survive despite decades of systematic oppression, unlike the many minority spoken languages which have been rendered extinct by similar marginalisation (Padden 1990:524; see also §5.3 below). However, small-scale local sign languages may not be as resilient, as often their communities shift toward the stronger national sign language (Bickford et al. 2015:524; see also §5.2).

Another more recent tool for measuring vitality is Lee and Van Way's (2016) Language Endangerment Index (LEI), used in the Catalogue of Endangered Languages (ELCat).[5] ELCat is a key component of the Endangered Languages Project, which began running on Google (Lee & Van Way 2016). The LEI includes four criteria: "intergenerational transmission, absolute numbers of speakers, increasing or decreasing numbers of speakers, and domains of use" (Grenoble 2016:294; Lee & Van Way 2016). The ELCat system differs from UNESCO's because it gives a different weight to each factor, and focuses more on illuminating factors relevant to vitality rather than assessing vitality per se (Grenoble 2016:294). By taking the factors into account, the LEI provides an overall sense of a language's vitality, and presents a certainty level which is derived from how many factors the researchers used in their evaluation; therefore, it is not necessary to have comprehensive information about all of the factors (Lee & Van Way 2016:277–278). The ELCat system also does not

[4]'Vehicularity' is defined as how much the language is used as a lingua franca, i.e., "the extent to which a language is used to facilitate communication among those who speak different first languages" (Lewis & Simons 2010:115).

[5]http://www.endangeredlanguages.com.

consider vitality to be adversely affected by gaps in documentation or a lower quality of documentation (277–287).

2.2 UNESCO's Atlas For over a decade, one of the main ways in which endangered languages have been catalogued and tracked is through UNESCO's language atlas. The UNESCO *Atlas of the World's Languages in Danger* (Moseley 2010)[6] is a key reference book on endangered languages, with an interactive online version. It contains information on approximately 2,500 endangered languages, including hundreds of extinct languages, and displays the geographic location and an endangerment ranking for each language (see Figure 1). Its aim in mapping minority languages and highlighting how many are in danger of disappearing soon is to increase awareness among policy-makers, communities, and the general public about protecting linguistic diversity.

UNESCO's system for rating vitality has six levels and involves nine factors (Moseley 2010), which all have the same weight, unlike the four criteria used in the LEI for ELCat (Grenoble 2016:294). The objective of the UNESCO survey is to provide a methodology for data collection. It relies on a questionnaire with which trends in numbers of language users, language endangerment, and linguistic diversity can be verified. The Foundation for Endangered Languages (FEL) orchestrates the collection and collation of the data, and then passes it on to UNESCO for mapping.

UNESCO's questionnaire has two main sections: "Language Vitality and Endangerment" (which was developed by an international group of linguists between 2002 and 2003) and "Linguistic Diversity Indicators". While this was a helpful starting point for the present work, the questionnaire needed to be adapted in order to collect information about signed languages, and §3 explains how this was carried out.

3. Adaptation of the questionnaire Between 2002 and 2010, the UNESCO survey was used to gather information on spoken languages only, as the initial group of experts who created the questionnaire did not include any sign language linguists. Scholars at iSLanDS, along with other sign language linguists, NGOs, and deaf people, wanted to find out where sign languages fit into the endangerment scale to be able to protect them more effectively. This prompted the update of the questionnaire (see Appendix), so that the questions and answer options could be more specific to signed languages and enable the comparability of sign language data with the existing spoken language data.

In June 2010, several academics including Professor Ulrike Zeshan, the director of iSLanDS, met in Paris to discuss the endangered languages survey. In November 2010, a conference on endangered sign languages, organised by the World Federation of the Deaf (WFD) and the European Union of the Deaf (EUD), was held in Norway. The iSLanDS Institute then worked with the WFD Expert Committee on Sign Languages and the aforementioned EuroBABEL consortium project on village

[6]An interactive online version is available. http://www.unesco.org/culture/en/endangeredlanguages/atlas. (Accessed 24 January 2018).

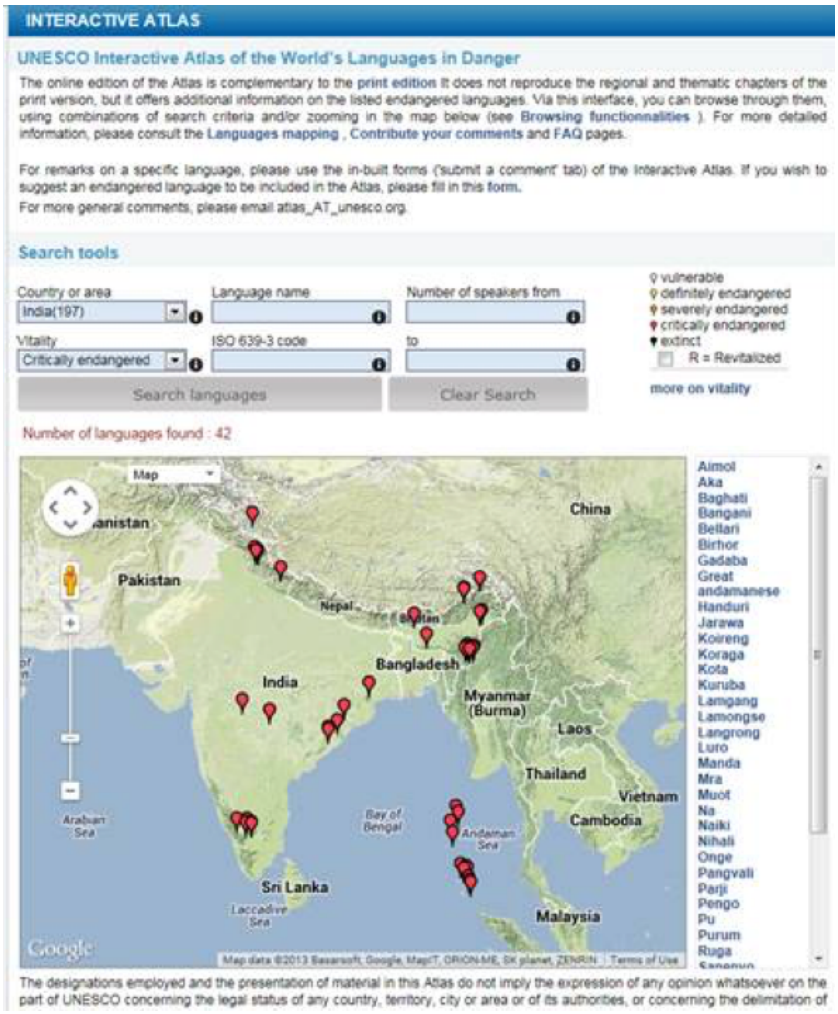


Figure 1. A search using UNESCO's Interactive Atlas, showing that India has 42 critically endangered spoken languages

sign languages to adapt UNESCO's questionnaire. Professor Zeshan took the lead in developing a new version of the survey in 2011, aiming to make the instrument appropriate for the sociolinguistic particularities of sign languages and deaf communities while maintaining highest possible analogy to the original questionnaire. The aim was to choose features from the original survey that were especially important for determining the vitality of a sign language. For example, use in education has much more of an impact on the vitality of a sign language than it does on a spoken language.

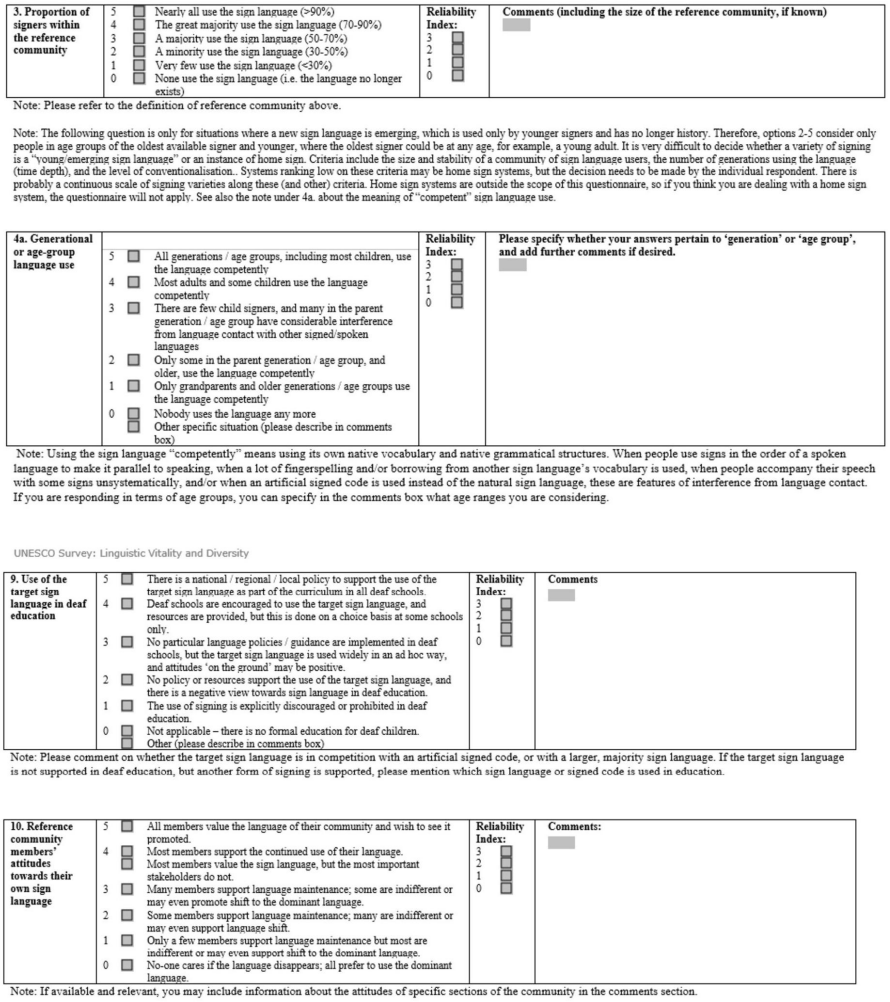
Feedback and comments from numerous peer reviewers across the globe were sought and implemented in this adaptation process, which was challenging due to the relative dearth of research on signed languages and the lack of reliable demographic statistics (as noted by a questionnaire respondent, who requested guidelines

on where to obtain such statistics). For example, not all deaf people are sign language users, and definitions of *sign language user* are often unclear, especially with the ever-increasing number of people with cochlear implants. Some people, for instance, may consider an individual to be a *sign language user* even though s/he is unaware of the grammar of the sign language and uses lexical signs in the grammatical order of a national or native spoken language. In some places, sign language use can be stigmatised, and people may not declare themselves as being signers even though they sign regularly and proficiently. Seemingly intuitive notions like "fluent user" are sometimes ambiguous in the context of sign languages. Such possibilities were accounted for in footnotes under several of the questionnaire items.

The issue of who should fill in the questionnaire was also debated among the committee. The original version specified "linguist" as the target group, but very few signers are trained linguists due to systemic inequalities and barriers in education and the relative newness of sign language research as a field. This left open the risk of the questionnaire being completed by hearing linguists with little signing skill and/or connection to the target deaf community. To obtain more information about the respondent's background, the following question was added in the box for the respondent to fill in their contact details: *"Also state how you know the language, e.g. are you a (sign) linguist who is also a native user of the language in question, a (sign) linguist in cooperation with a native user, a non-linguist from the sign language community, etc.*".

Other circumstances that had to be allowed for in the adaptation included that sign languages are minority languages compared to dominant spoken languages, but in some countries, there are also minority sign languages versus dominant national sign languages. Thus, while endangered spoken languages are usually under threat from more dominant spoken languages, endangered sign languages might be threatened by both spoken languages and more dominant sign languages (e.g., Lanesman & Meir 2012; de Vos & Zeshan 2012). Furthermore, changes in technology, especially cochlear implants, affect sign languages much more directly than spoken languages. Finally, the rhetoric of policies is often less indicative of reality in the case of sign languages; in many cases there is a large gap between the official/legal situation of sign languages and the real situation that signers actually face. This means that questionnaire items on the official status and use of a language in deaf education might reveal little about the actual situation. Most questions were adapted by necessity in order to account for these and other different factors affecting sign languages, and additional comments were also provided where necessary. In addition, some of the wording (e.g., "speakers", "speech community") implied that only oral-aural languages were relevant, and some items (e.g., about use of the language on the radio) were not applicable to signed languages. Other questions required supplemental information, greater specificity, or clarification. For example, when evaluating the use of a sign language vs. "more dominant languages" in education, a sign language may be in competition with a larger majority sign language and/or an artificial signed/man-

ual code such as Sign Supported English.[7] Regarding a question about domains of language use, one respondent providing data about a minority sign language asked, "*What is the comparing target for this question? Shall the domains of language use be compared to spoken language domains or to a dominant sign language?*" Such queries were of considerable value when clarifying and specifying the questionnaire items (see Figure 2 for an example of some items in the adapted survey).



3. Proportion of signers within the reference community	5 ☐ Nearly all use the sign language (>90%) 4 ☐ The great majority use the sign language (70-90%) 3 ☐ A majority use the sign language (50-70%) 2 ☐ A minority use the sign language (30-50%) 1 ☐ Very few use the sign language (<30%) 0 ☐ None use the sign language (i.e. the language no longer exists)	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments (including the size of the reference community, if known)**

Note: Please refer to the definition of reference community above.

Note: The following question is only for situations where a new sign language is emerging, which is used only by younger signers and has no longer history. Therefore, options 2-5 consider only people in age groups of the oldest available signer and younger, where the oldest signer could be at any age, for example, a young adult. It is very difficult to decide whether a variety of signing is a "young/emerging sign language" or an instance of home sign. Criteria include the size and stability of a community of sign language users, the number of generations using the language (time depth), and the level of conventionalisation.. Systems ranking low on these criteria may be home sign systems, but the decision needs to be made by the individual respondent. There is probably a continuous scale of signing varieties along these (and other) criteria. Home sign systems are outside the scope of this questionnaire, so if you think you are dealing with a home sign system, the questionnaire will not apply. See also the note under 4a. about the meaning of "competent" sign language use.

4a. Generational or age-group language use	5 ☐ All generations / age groups, including most children, use the language competently 4 ☐ Most adults and some children use the language competently 3 ☐ There are few child signers, and many in the parent generation / age group have considerable interference from language contact with other signed/spoken languages 2 ☐ Only some in the parent generation / age group, and older, use the language competently 1 ☐ Only grandparents and older generations / age groups use the language competently 0 ☐ Nobody uses the language any more ☐ Other specific situation (please describe in comments box)	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Please specify whether your answers pertain to 'generation' or 'age group', and add further comments if desired.**

Note: Using the sign language "competently" means using its own native vocabulary and native grammatical structures. When people use signs in the order of a spoken language to make it parallel to speaking, when a lot of fingerspelling and/or borrowing from another sign language's vocabulary is used, when people accompany their speech with some signs unsystematically, and/or when an artificial signed code is used instead of the natural sign language, these are features of interference from language contact. If you are responding in terms of age groups, you can specify in the comments box what age ranges you are considering.

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9. Use of the target sign language in deaf education	5 ☐ There is a national / regional / local policy to support the use of the target sign language as part of the curriculum in all deaf schools. 4 ☐ Deaf schools are encouraged to use the target sign language, and resources are provided, but this is done on a choice basis at some schools only. 3 ☐ No particular language policies / guidance are implemented in deaf schools, but the target sign language is used widely in an ad hoc way, and attitudes 'on the ground' may be positive. 2 ☐ No policy or resources support the use of the target sign language, and there is a negative view towards sign language in deaf education. 1 ☐ The use of signing is explicitly discouraged or prohibited in deaf education. 0 ☐ Not applicable – there is no formal education for deaf children. ☐ Other (please describe in comments box)	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

Note: Please comment on whether the target sign language is in competition with an artificial signed code, or with a larger, majority sign language. If the target sign language is not supported in deaf education, but another form of signing is supported, please mention which sign language or signed code is used in education.

10. Reference community members' attitudes towards their own sign language	5 ☐ All members value the language of their community and wish to see it promoted. 4 ☐ Most members support the continued use of their language. ☐ Most members value the sign language, but the most important stakeholders do not. 3 ☐ Many members support language maintenance; some are indifferent or may even promote shift to the dominant language. 2 ☐ Some members support language maintenance; many are indifferent or may even support language shift. 1 ☐ Only a few members support language maintenance but most are indifferent or may even support shift to the dominant language. 0 ☐ No-one cares if the language disappears; all prefer to use the dominant language.	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments:**

Note: If available and relevant, you may include information about the attitudes of specific sections of the community in the comments section.

Figure 2. Some items from the adapted questionnaire (see Appendix for the full questionnaire)

[7]Manual systems or codes like Sign Supported English are visual-manual representations of a spoken language. Unlike sign languages, which evolved in deaf communities and have their own grammar, manual codes are contrived systems that follow the grammar of their respective spoken language.

As per the remit of the original UNESCO survey, the aim was to gather as many independent reports covering as many signed languages as possible, to enhance the reliability of the data, validate the pertinence of the questions, and ensure that the resulting generalisations are useful in the future for communities, researchers, and policy-makers. However, the original survey did not have a scoring mechanism that took individual factors into account in a systematic way; contributors were simply asked to fill in a vitality score based on their knowledge of the language's current situation. In the adapted survey, it was important to generate a more transparently justifiable vitality score for each language by considering the scores for the individual factors, and this process is explained in §4.

After the adaptation of the questionnaire was complete, the updated version was sent to linguists and deaf community leaders starting in 2012 (see Figure 2). Their responses were used by the committee to score the languages, as described in the next section. A video in International Sign with a summary of the project and instructions on filling out the questionnaire are provided on the project website.[8]

4. Data collection and evaluation Sign language experts from different countries worldwide completed questionnaires, which were then analysed by an international project committee, including linguists and deaf community leaders from Germany, Korea, Mexico, the USA, Austria, and the UK (iSLanDS Institute 2013). The aim was to choose features from the original survey that were especially important for determining the vitality of a sign language. For example, use in education has much more of an impact on the vitality of a sign language than it does on a spoken language. The committee identified ten key factors to be used in calculating the vitality score for each language, as these were assessed as being the most relevant to the endangerment of sign languages. As shown in Table 1, some of the factors mirrored those in the original questionnaire, while others were altered to more closely target the particular features affecting sign language vitality, such as use in deaf education and institutional policies.[9]

1. Proportion of signers in the reference community
2. Generational or age group language use
3. Domains of language use
4. New domains
5. Materials for language spread and education
6. Governmental and institutional language attitudes and policies

[8]http://www.uclan.ac.uk/research/explore/projects/sign_languages_in_unesco_atlas_of_world_languages_in_danger.php.

[9]Note that a previous summary report on this work (Safar & Webster 2014) listed nine factors because items 3 and 4 ("Domains of language use" and "New domains") were combined into one factor for the purposes of the report. But in the questionnaire and in the scoring process, these items were treated as separate factors.

7. Use of the target sign language in deaf education
8. Reference community members' attitudes towards their own sign language
9. Type and quality of documentation
10. Status of language programmes

For the most part, these factors were taken from the original UNESCO questionnaire for spoken languages, which are listed as follows in UNESCO's document on language vitality and endangerment (2003).[10] Table 1 compares the factors used in the original UNESCO survey and our adapted questionnaire for sign languages.

Table 1. Factors in original UNESCO survey and adapted survey for sign languages

Factor #	Original UNESCO questionnaire	Questionnaire adapted for sign languages
1	Intergenerational language transmission	Proportion of signers in the reference community
2	Absolute number of speakers	Generational or age group language use
3	Proportion of speakers within the total population	Domains of language use
4	Shifts in domains of language use	New domains
5	Response to new domains and media	Materials for language spread and education
6	Availability of materials for language education and literacy	Governmental and institutional language attitudes and policies
7	Governmental and institutional language attitudes and policies, including official status and use	Use of the target sign language in deaf education
8	Community members attitudes towards their own language	
9	Type and quality of documentation	
10		Status of language programmes

The vitality score is calculated based on a combination of these factors, as no factor alone can determine how safe or endangered a signed or spoken language is. However, some modifications and additions to the original set of factors were necessary. Factor 2 for spoken languages ("Absolute number of speakers") was removed as sign languages cannot be compared to spoken languages in this respect. As deaf people constitute a minority of the population, the numbers of language users are always small compared to spoken languages, irrespective whether these languages are used in urban or rural settings. The absolute number of signers is thus much less informative than the relative number of signers in the reference community (Factor 1 for sign languages).

[10]http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CLT/pdf/Language_vitality_and_endangerment_EN.pdf.

Apart from that, two additional factors were used for the evaluation of sign language questionnaires: Factor 7 ("Use of the target sign language in deaf education") and Factor 10 ("Status of language programmes"). The use of sign language in education is indeed crucial for the vitality of sign languages, even more so than for spoken languages. As approximately 95% of deaf children are born to hearing parents, many deaf children do not have the chance to acquire sign language from their caregivers; rather, they have their first contact with sign language (and often, a deaf community) only when they enter school or early childhood education. Also, and this is different from the situation of spoken languages, teaching in sign language is the only way for deaf children to have full access to education. Traditionally, deaf schools are also important centres for the transmission of deaf culture.[11]

Because sign language transmission often takes place outside the family a deaf child is born into, language programmes that aim to promote the use and maintenance of a language can be vital and were thus taken into account in the adapted questionnaire. Such programmes can include summer schools, children's summer camps with language elements, programmes that promote sign language teaching to hearing people, and cultural events such as performances of sign language poetry or drama.

For each of the ten factors described above, a score between 0 and 5 was assigned based on the responses in the questionnaire, and then the ten factors were averaged. To account for the fact that formal education does not exist at all for deaf people in some locations (especially in village signing communities) and that the score for 'use of the target SL in deaf education' was thus 0, Factor 7 was excluded from the average in such cases. See Figure 3 for an example of the scoring for Chican Sign Language in Mexico.

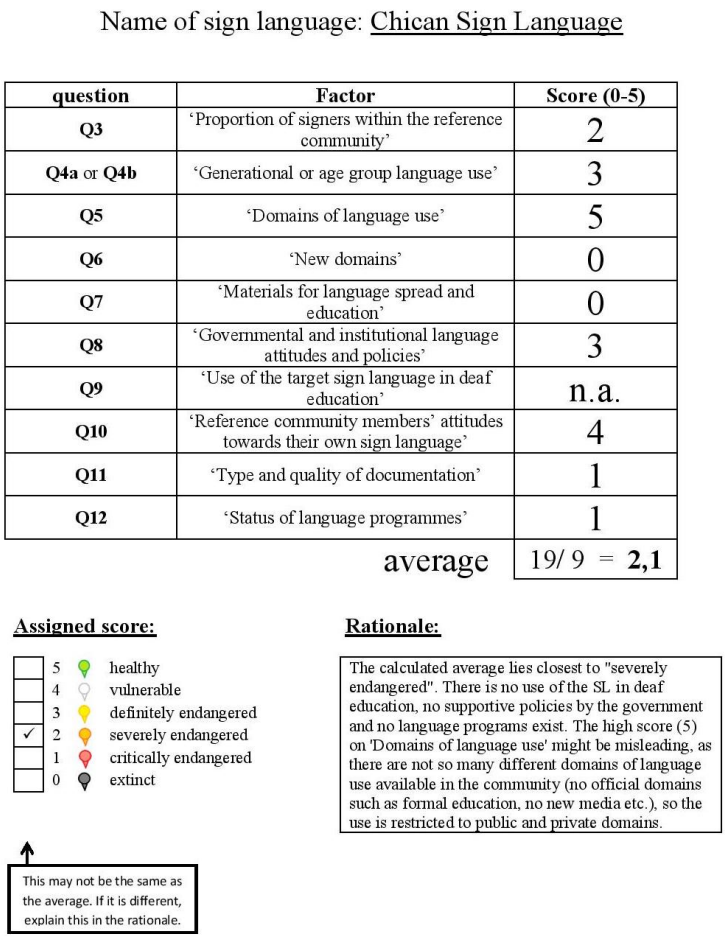
In case the average value was in between two vitality levels (e.g., a score of 2.5 would lie between *severely* and *definitely endangered*), the committee had to decide which level was more appropriate for the language in question, relying on guidance from the contributor(s), previous research findings, and comparison with languages that had already been scored. A rationale was provided for each language to justify and make transparent how the scoring was assigned. For example, a score between 1 and 2 was calculated for Algerian Jewish Sign Language (AJSL). After consultation with the contributor and in the light of a study by Lanesman (2012) – which argued that this language's sociolinguistic setting has disappeared and that it faces possible extinction in the next 15–20 years – the committee decided that a vitality level of 1 (critically endangered) was appropriate for AJSL.

Committee members produced each score and rationale by working in pairs, and these findings were cross-checked with the rest of the committee as well as with the original questionnaire contributor(s). The results were submitted to the FEL in several batches for inclusion in the next Atlas (see §5).[12] The committee corresponded

[11]Note that in village sign language communities, where there is often a high proportion of hearing signers and less social separation between deaf and hearing people, deaf children get access to sign language more easily at an early age even if their parents are not deaf.

[12]At the time of writing, the publication of UNESCO's next edition of the Atlas has not been confirmed.

with the contributors throughout the process in order to establish the modalities of cooperation, including how they wished to be recognised for their input.



Name of sign language: Chican Sign Language

question	Factor	Score (0-5)
Q3	'Proportion of signers within the reference community'	2
Q4a or Q4b	'Generational or age group language use'	3
Q5	'Domains of language use'	5
Q6	'New domains'	0
Q7	'Materials for language spread and education'	0
Q8	'Governmental and institutional language attitudes and policies'	3
Q9	'Use of the target sign language in deaf education'	n.a.
Q10	'Reference community members' attitudes towards their own sign language'	4
Q11	'Type and quality of documentation'	1
Q12	'Status of language programmes'	1
	average	19/ 9 = **2,1**

Assigned score:

- [ ] 5 healthy
- [ ] 4 vulnerable
- [ ] 3 definitely endangered
- [x] 2 severely endangered
- [ ] 1 critically endangered
- [ ] 0 extinct

This may not be the same as the average. If it is different, explain this in the rationale.

Rationale:

The calculated average lies closest to "severely endangered". There is no use of the SL in deaf education, no supportive policies by the government and no language programs exist. The high score (5) on 'Domains of language use' might be misleading, as there are not so many different domains of language use available in the community (no official domains such as formal education, no new media etc.), so the use is restricted to public and private domains.

Figure 3. Example of the scoring process

5. First results This section presents some results from the scoring of 15 sign languages (§5.1), and then focusses more specifically on threats to two sub-sets of these languages: village sign languages (§5.2) and national sign languages (§5.3). This is followed by a summary of the general trends discernible from the data so far (§5.4).

5.1 Vitality of sign languages included in the survey The team analysed the vitality level of 15 sign languages (see Table 3 below). The 15 languages represented here were the first batch of responses the committee received from language experts who

voluntarily completed the questionnaire. The levels of endangerment are comparable to those for spoken languages appearing in the UNESCO Atlas (Moseley 2010), which are shown in Table 2. Instances of safe (level 5) or extinct sign languages (level 0) have not yet been targeted.

The results for the first 15 sign languages indicate that endangerment deserves the attention of linguists, NGOs, policy makers, and governments. Even national sign languages, which are recognised by law and used by larger communities, are to some degree threatened by extinction (e.g. De Meulder 2017; McKee 2017).

Out of the 15 languages, 3 were scored as *critically endangered*, 4 as *severely endangered*, 4 as *definitely endangered*, and 4 as *unsafe/vulnerable*. The languages most threatened by extinction are the ones with the smallest user communities (Algerian Jewish SL, Mardin SL, and Inuit SL are used by between 40 and 100 signers). The map in Figure 4 shows the geographic location of each of the sign languages included so far.

Table 2. Levels of endangerment with an example of a sign language at each level

Level of endangerment	Score	Example
Safe	5	
Unsafe/vulnerable	4	Austrian Sign Language
Definitely endangered	3	Kata Kolok, Bali, Indonesia
Severely endangered	2	Finland-Swedish Sign Language
Critically endangered	1	Mardin Sign Language, Turkey
Extinct	0	

Figure 4. Locations of the 15 sign languages that were scored[13]

[13]NB the pin for India is off-centre due to a technical glitch.

Table 3 shows the endangerment levels of all the sign languages included in the survey so far and the approximate number of users as well as the names of the contributors who provided data. The low number of users for most of these languages is quite notable, and this perhaps signals that longitudinal data is needed to show trends in user numbers and vitality over time. It is important to note that this table only provides a snapshot and does not indicate trends.

Table 3. Results from the survey on endangered sign languages (village sign languages are in bold)

Name of Sign Language	Name of Contributor	Approximate Number of Users	Country	Level of Vitality
Algerian Jewish Sign Language (AJSL)	**Sara Lanesman and Irit Meir**	**50–100**	**Israel**	**1**
Alipur Sign Language (APSL)	**Sibaji Panda**	**10,000**	**India**	**3**
Al-Sayyid Bedouin Sign Language (ABSL)	**Shifra Kisch**	**1,500**	**Israel**	**3**
Austrian Sign Language (ÖGS)	Austrian Deaf Association (ÖGLB)	20,000	Austria	4
Ban Khor Sign Language (BKSL)	**Angela Nonaka**	**403**	**Thailand**	**2**
Brazilian Sign Language (Libras)	Ronice Müller de Quadros	Unknown	Brazil	4
Chican Sign Language (ChicanSL)	**Cesar Ernesto Escobedo Delgado and Olivier Le Guen**	**349 (17 deaf, 332 hearing)**	**Mexico**	**2**
Danish Sign Language (DTS)	Danish Deaf Association	4–5,000	Denmark	4
Ethiopian Sign Language (EthSL)	Eyasu H. Tamene	70,000	Ethiopia	3
Finland-Swedish Sign Language (FinSSL)	Karin Hoyer and Janne Kankkonen	300	Finland	2
Inuit Sign Language	Joke Schuit	40	Canada	1
Kata Kolok	**Connie de Vos**	**1,250**	**Indonesia**	**3**
Mardin Sign Language (MarSL)	**Hasan Dikyuva**	**40**	**Turkey**	**1**
New Zealand Sign Language (NZSL)	Rachel McKee	24,000	New Zealand	4
Yucatec Maya Sign Language (YMSL) – Nohkop variety	**Olivier Le Guen**	**34**	**Mexico**	**2**

5.2 Endangerment of village sign languages In our survey, we included eight village sign languages. These languages are particularly vulnerable to extinction due to their small community size and typically short life cycle. The emergence of village sign languages depends on a particular sociolinguistic constellation, namely the presence of an unusually high concentration of deaf people in small, face-to-face communities. Often, they are geographically isolated and typically rather homogenous in terms of education and occupation. Changes to their fragile "language ecology" (Haugen

1972) can cause village sign languages to disappear in the course of only one or few generations (Nonaka 2012).

The most prominent factors for the endangerment of village sign languages, which we identified in our survey, are summarised below.

(1) **Decreasing birth of deaf children**

> "*The most prominent threat in Chican is the death of its deaf members.*"
> (Questionnaire, Chican SL)

Village sign languages emerge when over the course of one or several generations deaf people are born into a community where they lack access to any established sign language and start to co-create their own language together with their hearing family members. The number of deaf signers in these reference communities can vary, from as small as 14 (in the case of Mardin SL) to as many as 130 (in the case of Al-Sayyid Bedouin SL). If the presence of deaf people in these communities decreases, so does the necessity to use the local sign language. In the case of Yucatec Maya Sign Language in the village of Chican, for instance, the youngest deaf signer is currently 14 years old. Even though most hearing community members are proficient in YMSL, the language will eventually stop being used if no further deaf children are born.

(2) **Demographic and economic transformations**

Many rural sign languages emerged in the context of rather tight-knit traditional agriculture or fishing-based societies. As a result of current pressures of globalisation, a shift towards more service-oriented economies can lead to more pronounced social stratification, an imbalance in professional opportunities, and less social cohesion between deaf and hearing community members (e.g., in the case of BKSL, see also Nonaka 2012). While pursuing their traditional occupations, hearing status often did not play a major role, but today, the heightened demand for literacy and formal education in the labour market gives hearing people a professional advantage compared to deaf people. The therefore reduced opportunities for deaf and hearing signers to sign during their daily routines can pose a threat to language vitality. In some cases, the influx of migrants into the community can lead to the presence of more non-signers than before.

> "*There has been very intensive migration into the village the past few years […] these migrants are non-signers.*"
> (Questionnaire, AdaSL)

(3) **Dispersion of the language community**

When deaf signers migrate to urban centres to seek employment (e.g., in the case of Mardin Sign Language), or deaf women get married and move to their husband's village (e.g., in the case Yucatec Maya Sign Language, Nohkop), social networks between signers become loosened or disrupted.

"In Nohkop, the fragmentation of the community could be problematic for the safety of the language. Most of the signers are girls and when getting married, they leave their house to go live with their boyfriend/husband. […] As a result, contact between signers that used to be regular is now scarce."
(Questionnaire, YMSL Nohkop)

In the case of Algerian Jewish Sign Language, the Algerian Jewish community even emigrated to different countries, mainly Israel and France (Lanesman & Meir 2012).

(4) **Changes in marital patterns**

In many of the village communities represented in our study, intermarriage between community members used to be common, which meant that rates of hereditary deafness were sustained over many years. Patterns of marriage are changing as social networks extend further beyond community borders, and in some cases, marriage between deaf community members is explicitly discouraged or even forbidden by law (see Kusters 2012:348).

"Deaf people are not allowed to marry and create offspring together (deaf-deaf marriages in this village always have led to deaf offspring in the past). Hence there are almost no deaf children born in this village anymore. The deaf population is thus ageing."
(Questionnaire, AdaSL)

The tendency to marry outside of the community can lead to a decreased incidence of congenital deafness within the village (e.g., in Adamorobe SL or in Kata Kolok). Moreover, it restricts the use of the local sign language if deaf signers from the community get married to (deaf or hearing) signers from elsewhere (e.g., in the case of ABSL).

(5) **Contact with the national sign language**

Village sign languages are linguistic isolates. A number of rural signing communities are geographically isolated and deaf members did not have the opportunity to meet deaf signers from the cities and/or learn the national sign language. Increased mobility as well as access to communication technology and social media now facilitate interactions with members of urban deaf communities. As a result, there is more and more language contact with the national, dominant sign language(s) (e.g., Israeli SL among ABSL users, Thai SL among BKSL users, Turkish SL among MarSL users). The establishment of formal education for deaf children, typically carried out in the national sign language, is a major factor responsible for the spread of national sign languages into village communities (e.g., Nonaka 2014). The degree of impact of the national sign language on the local village sign language varies; while in Bengkala the

younger deaf signers *"disfavour Kata Kolok over the varieties of Indonesian sign language used in the deaf boarding school"* (Questionnaire Kata Kolok),[14] Mexican Sign Language so far has had only *"superficial influence"* in Chican (Questionnaire Chican SL). Because deaf education often takes place in boarding schools, deaf signers often leave their village (at least during the week) and spend most of their time interacting with deaf pupils from other locations (Kusters 2014). Often, extensive exposure to a national sign language leads signers to shift to the more dominant language because they feel it offers them social and professional advantages.

> *"For deaf Ban Khorians, TSL [Thai Sign Language] is both a lingua franca (for communication with other deaf people) and a prestige code (for potential social, economic, and political mobility)."*
> (Questionnaire, BKSL)

As they typically do not acquire the national sign language, hearing signers play a key role in maintaining the use of the local village sign language (Lanesman & Meir 2012:174–175).

On top of these community-internal changes, there are some additional factors to consider.

(6) **Negative or indifferent language attitudes**

Government bodies, members of urban deaf communities, and village sign language users themselves may support a shift towards the use of a national, more dominant sign language (e.g., in the case of AJSL, see Lanesman & Meir 2012). Village sign languages are often regarded as less "sophisticated" than institutionalised ones. The pressure from governments or institutions who aim to introduce a more prestigious sign language into the community instead of the local one is often considerable. However, language attitudes from "outside" can also differ from the views of community members, who might consider the local village sign language to be more beautiful, useful, or authentic than the national one (see Safar 2017 for YMSL; Kusters 2014 for Adamorobe SL). However, such positive attitudes do not necessarily lead community members to undertake initiatives of language maintenance or revitalisation.

> *"I would say that language attitudes and ideologies towards Adamorobe Sign Language are positive, but not that the people wish to see the language promoted or maintained."*
> (Questionnaire, AdaSL)

[14]Lutzenberger and de Vos (personal communication) have pointed out that this trend has changed since the completion of the survey. Currently, all younger Kata Kolok signers have stopped attending the deaf boarding school, resulting in less language contact with Bisindo (Indonesian Sign Language). Many of them are now married to hearing or deaf individuals from within or outside the village. As children are often minded by their parents as well as their grandparents, all residing in the same family compound, they receive their primary input in Kata Kolok.

(7) **Absence of institutional support**

Of all village sign languages included in the survey, only Kata Kolok had been implemented in deaf education. Generally, village sign languages are absent from institutional settings, and their use is restricted to the private domain. Minority language policies for conservation or revitalisation usually target spoken minority languages or national sign languages, but do not take into account village/indigenous sign languages (e.g., Nonaka 2004; Safar 2015).

"The government supports the use of Turkish Sign Language in deaf education, but does not mention MarSL."
(Questionnaire, MarSL)

It is somehow ironic that advances in deaf education, i.e. the adoption of national sign languages into the school curriculum, can pose a threat to the survival of village sign languages, which are used by minorities of a minority (see Zeshan 2007).

(8) **Lack of documentation**

Linguistic and anthropological research on village sign language communities is only a recent development. Even though the number of publications on village sign languages is increasing (e.g., Zeshan & de Vos 2012), many of their typologically fascinating linguistic structures are at risk of being lost without ever being documented (Nonaka 2004).

"Additional linguistic description is necessary for the linguistic system to be considered documented."
(Questionnaire, BKSL)

5.3 Endangerment of national sign languages National sign languages such as those in Brazil, Denmark, New Zealand, and Austria (all of which have a vitality level of 4) are in general less endangered than village sign languages. This is because they rely on larger communities and are used in a variety of domains in everyday life (de Vos & Zeshan 2012). Despite threats to their survival, national sign languages continue to thrive within deaf communities and form part of their collective memories (Padden 1990; see also Bickford et al. 2015:524). Nevertheless, as shown by our vitality scores for seven national sign languages, many are rendered unsafe by the increasing demand for cochlear implants in deaf children, the tendency for deaf pupils to attend mainstream schools, and the disappearance of sign languages from educational settings. These factors are all potential threats to sign language vitality, because they further disrupt generation-to-generation transmission (cf. Anderson 2011:274).

Generally, the rejection of a minority (signed or spoken) language or failure to learn it can stem either from bilingual parents not using the language with their children, or from children learning the language at home but then "rapidly reject[ing] the use of the heritage language when they have entered the domains of national schooling and national, urban/metropolitan, transnational or globalised culture" (Anderson

2011:274). Because such a low percentage of deaf children have parents who are fluent in a sign language (<10%, and possibly as little as 5%; e.g., Mitchell & Karchmer 2004), the likelihood of parent-to-child transmission is already statistically small,[15] and this makes institutions such as deaf schools crucial for sign language transmission. The predominance of spoken language in schools and society creates further disincentives to use sign languages. Medical professionals' advocacy of cochlear implantation is sometimes accompanied by explicit instructions not to use sign language, such that even bilingual signing parents (whether hearing or deaf) may be encouraged to avoid signing with their child (e.g., Wrobel 2014:29–30).

Urban sign languages are more likely than village sign languages to be recognised by law and supported by institutions and language policies (de Vos & Zeshan 2012). More than 30 countries have recognised their national sign language, and most of these are in the EU (De Meulder 2015). Urban sign languages that have had explicit governmental recognition, whether as part of a specific sign language act or as part of general language legislation, include those of Uganda (1995), Latvia (1999), Uruguay (2001, 2008), Spain (2007), Estonia (2007), Sweden (2009), Iceland (2011), Zimbabwe (2013), and Denmark (2014), among others (see e.g. De Meulder 2015; Pabsch 2017). Sometimes a government recognises more than one sign language, as Finland did for Finland-Swedish Sign Language and Finnish Sign Language with its Sign Language Act in 2015 (De Meulder 2017:197). However, the minority sign language(s) do not always receive the same amount of institutional support.

National sign languages usually have a relatively large community of users. But the increasing pressure by medical institutions promoting cochlear implants, paired with mainstreaming tendencies and the neglect of sign language in the education sector, give many of them an endangered status with progressively waning vitality. For example, the number of New Zealand Sign Language (NZSL) users decreased by 25% in 12 years, from 27,285 in 2001 to 20,235 in 2013, despite the country's overall population increasing by more than 25% (Statistics New Zealand 2013, as cited in McKee 2017:332–333).

The remainder of this sub-section considers three of the most influential factors affecting the seven national sign languages scored by our committee.

(9) **Increasing pressure by medical institutions promoting cochlear implants**

The use of cochlear implants at the expense of learning to sign and becoming involved in the deaf community is often noted as one of the main issues that threaten sign languages (e.g. McKee 2017:354). The respondent for NZSL noted that the second largest threat to the language is *"low uptake of NZSL as a communication option following infant cochlear implantation"*. This is highlighted especially by deaf organisations, who are concerned that widespread cochlear implantation may eventually eliminate deaf culture and signed languages (Wrobel 2014:30), especially when implants are characterised by medical professionals as being aligned with spoken lan-

[15]Hearing children may also learn and value the language, but they are unlikely to use it as their primary or preferred language, due to the overwhelming majority status of speech.

guage use and in opposition to sign language use. Some professionals advise parents that their child's post-implantation spoken language development will be impeded by learning a sign language (e.g., Hall 2017), and most parents perceive speech and signing "as separate options and not in any complementary manner", not realising that "the use of a sign language and the objectives of cochlear implantation may not be incompatible and can both be realisable" (Hyde, Punch, & Komesaroff 2010:175). This factor affects sign languages more in Western countries and less in developing nations where cochlear implants are still largely unaffordable (Wrobel 2014:30).

(10) **Mainstreaming tendencies**

Mainstreaming tendencies and inclusive education policies[16] comprise another factor that is felt to decrease the vitality of national sign languages (e.g., McKee 2017:354). This is because when placed in mainstream institutions, deaf pupils are likely to be isolated from other deaf people. While they may have access to sign language interpreters or teaching assistants who sign, they do not usually have any interaction with deaf signing peers or adult deaf role models, and they are not part of a language community. This poses a threat to sign language transmission and to the transmission of deaf cultural knowledge. Mainstreaming policies often ideologically support the majority language and contribute toward decreased vitality for minority spoken languages as well (Garcia 2009), such as the Pangcah language in Taiwan, which is deprioritised for indigenous schoolchildren due to the overwhelming dominance of Mandarin Chinese (Chang 2014).

The respondent for Libras (Brazilian Sign Language), Ronice Müller de Quadros, commented in the questionnaire that this stems from a failure among policy-makers to investigate what 'inclusion' really means for sign language users.

> The government is causing confusion between the "inclusion" policy for handicaps and sign language. They apply the "inclusion" policies to deaf people, reducing the bilingual education to the presence of a sign language interpreter […] The problem is that a language does not happen between the interpreter and one deaf student in a class with hearing students speaking Portuguese. The deaf community has consistently tried to make the government support bilingual schools for deaf students or a concentration of deaf students in some schools with a true bilingual education. […] Bilingual education is very important for deaf people, since deaf children will have [most of their] contact with sign language at school (pre-school and elementary school), since almost all of them are born into hearing families.

[16]Mainstreaming or inclusive education refers to the increasingly widespread practice of including students with disabilities in regular schools rather than having them attend separate special schools or special classes. While this trend is seen as positive progress by many professionals and people with various disabilities, many members of deaf communities object to these policies, as they isolate deaf students in hearing classes without access to deaf peers and contribute toward deaf communities' dispersion, weakening their capacity as linguistic and cultural collectives.

Müller de Quadros reported that the "inclusion" policy is also contributing to the closure of deaf schools, which she identified as one of the three most prominent threats facing this language (the others being increasing cochlear implantation and increasing fragmentation of the deaf community). Similarly, the respondent for NZSL (Rachel McKee) reported that the primary threat is the sign language community's fragmentation, which is "the decline of congregated deaf education settings – schools and units are greatly diminished, so most children are in mainstream institutions".

The mainstreaming of a high proportion of deaf children is one of three key threats to deaf communities identified by Johnston (2004, as cited in Komesaroff 2007:360–361), in addition to increased cochlear implantation and the declining prevalence of deafness generally. Johnston suggests that governments might paradoxically be *more* determined to meet the linguistic needs of deaf people if they comprise a smaller group, because their needs will be more "modest" (360–361). But in the case of mainstreaming, this is probably not true, as lower numbers of deaf children will make policy-makers more apt to recommend that they attend mainstream schools, and less willing to fund deaf units or institutions where sign languages are used.

(11) Neglect of sign language in the education sector

In addition to mainstreaming, the neglect of sign language in schools was a common factor in the endangerment of national or urban sign languages. For example, the Danish Sign Language respondent (the Danish Deaf Association) noted that only deaf pupils in years 8–10 are receiving education in this language, and in the future, even this provision will disappear. The Austrian Sign Language (ÖGS) respondent[17] commented that access to sign language in education varies according to the preferences of individual educators: *"Support and appreciation of the national sign language largely depends on teachers and headmasters of schools. ÖGS is not ascribed the same status as German"*.

If pupils do not use sign language at school, they are less likely to become members of the deaf community. The resulting reduction in deaf community size leads to a weakening of its traditions and organisations, and

> a constrained capacity […] to undertake all of the work required for active language maintenance and promotion, […] to ensure that [the language] is taught to those who wish to learn it, to participate in language documentation and educational resource development, to assume advocacy roles, and to run promotional activities. (McKee 2017:353–354)

With a smaller capacity, deaf organisations and leaders may find it increasingly difficult to promote their language and lobby for advocacy. Nonetheless, some national sign language communities remain optimistic because of increased governmental and institutional recognition and associated shifts in attitudes, for example in New Zealand (McKee 2017:354).

[17] *Österreichischer Gehörlosenbund* (ÖGLB), the Austrian Deaf Association.

5.4 Summary of general trends This study suggests that more empirically-driven and fine-grained distinctions are required between the notion of "urban sign languages" versus "national sign languages" in order to investigate sub-communities within these groupings (Woll & Ladd 2003:168). Further research is needed to clarify the preliminary distinctions here and determine precisely what it is that different types of sign languages need in order to thrive. As noted in §5.2, the notion of "language ecology" (Haugen 1972) could be useful in this determination. It refers to the language-society relationship, which is affected by five types of environment: historic, regional, political, institutional, and psychological (Haugen 1972:325).

Even though the situations of the sign languages included in the survey show striking differences, we can already observe some general tendencies regarding their endangerment. Some factors threatening urban sign languages, such as the increase in cochlear implantation, are not among the main factors that endanger village sign languages because these changes have not yet been introduced in certain rural areas. All of the analysed sign languages face a lack of supportive policies and the often indifferent or negative attitudes of governments and policy makers. However, being in a minority language group under threat can sometimes make users feel especially proud and protective of their language (Karan 2011, as cited in McKee 2017:354). Such attitudes may cause them to be optimistic about the future of their language, even when the factors at play suggest that its vitality is decreasing (354).

We can conclude that the situation of sign languages is comparable in some ways to that of spoken minority languages in that they are similarly affected by phenomena of globalisation, but sign languages also have peculiarities and unique endangerment factors. This emphasises the need for a focused diachronic study and the further development of sensitive instruments for assessment and evaluation.

6. Future perspectives The adaption of UNESCO's survey on language vitality to include sign languages was an important step but can constitute only the beginning of in-depth research on sign language endangerment. It is notable that other researchers have since employed this tool to evaluate the vitality of additional sign languages; for instance, Hofer (2017) used it to rate Lhasa Tibetan Sign Language as falling between "severely" and "definitely" endangered. Moreover, UNESCO now have a new Excel sheet for data entry that specifically allows the inputting of sign language data for inclusion in their language atlas. We hope that further studies will add new languages to the map of sign language vitality and contribute ideas to further develop and improve the tool.

Still, far too little is known on the true diversity of sign languages, and there are no reliable facts and figures on how many sign languages exist worldwide, if and how they are related, and how they are changing over the years. Including sign languages in research and policies on endangered minority languages is not just an additional feature, but rather an essential part of studying and protecting the world's multilingual heritage. Making visible the endangerment status of sign languages may help to promote the legal recognition and the creation of policies to improve communication access for deaf people and the protection of their linguistic and cultural identity. Now

that more is known about their endangerment, sign languages could be integrated not only in the UNESCO Atlas but also in other related initiatives, e.g. "Language Hotspots" (Anderson 2011) and World Heritage Sites (Romaine & Gorenflo 2017). For instance, some village sign language communities are in or near conservation areas, so engaging and protecting these communities may "help maintain nature [and] preserve settings that enabled indigenous languages and cultures to emerge and persist" (Romaine & Gorenflo 2017:1973). Clearly, increased knowledge about these languages also supports efforts toward documentation and revitalisation. As pointed out by Anderson (2011:275),

> every language, big or small, dominant or endangered, has the same potential value to its community of speakers as an emblem of ethnic identity and as a storehouse of the history of their community. For many communities, their language is the only such record.

Endangerment usually happens alongside isolation and "invisibilisation". This can be combated by mapping work such as that described within the model of "Language Hotspots", which aims to foster more awareness and solidarity amongst communities (Anderson 2011:286). In order to establish frameworks for assessing and mapping the vitality level of sign languages, our project shows that it is possible to adopt models that have been developed for spoken languages but that we need to carefully consider some particular features of signed languages. The survey discussed here is a first step, but in order to get a more comprehensive picture about sign language vitality around the world, data on many more sign languages are needed, particularly those that have yet to be documented.

This work has also resulted in some innovations for assessing vitality, in particular the robust methodology of scoring based on averages, and the workflow between questionnaire respondents and the scoring committee. These procedures may well be useful for spoken languages too, which suggests that research on sign languages can also potentially contribute to "mainstream" work on spoken languages. On a long-term basis, it would also be useful to include diachronic data to be able to monitor changes in the endangerment status of individual sign languages and to develop best practice models for promoting the vitality of endangered sign languages.

References

Anglin-Jaffe, Hannah. 2013. Signs of resistance: Peer learning of sign languages within 'oral' schools for the Deaf. *Studies in Philosophy and Education* 32. 261–271. doi:10.1007/s11217-012-9350-3.

Anderson, Gregory D. S. 2011. Language Hotspots: What (applied) linguistics and education should do about language endangerment in the twenty-first century. *Language & Education* 25(4). 273–289. doi:10.1080/09500782.2011.577218.

Bickford, J. Albert, M. Paul Lewis, & Gary F. Simons. 2015. Rating the vitality of sign languages. *Journal of Multilingual & Multicultural Development* 36(5). 513–527. doi:10.1080/01434632.2014.966827.

Byun, Kang-Suk, Connie de Vos, Anastasia Bradford, Ulrike Zeshan, & Stephen C. Levinson. 2017. First encounters: Repair sequences in cross-signing. *Topics in Cognitive Science [Special Issue on Miscommunication]* 10(2). 314–334. doi:10.1111/tops.12303.

Chang, Ya-Ling. 2014. The construction of language value and legitimacy in aboriginal primary school classrooms in Taiwan. *International Journal of Pedagogies & Learning* 9(2). 183–192. doi:10.1080/18334105.2014.11082031.

Comrie, Bernard & Paulina Jaenecke. 2006. Idiosyncratic factors in language endangerment: The case of Upper Sorbian. *Linguistic Discovery* 4(1). doi:10.1349/PS1.1537-0852.A.302.

Davidson, Kathryn, Diane Lillo-Martin, & Deborah Chen-Pichler. 2014. Spoken English language development among native signing children with cochlear implants. *Journal of Deaf Studies & Deaf Education* 19(2). 238–250. doi:10.1093/deafed/ent045.

De Meulder, Maartje. 2015. The legal recognition of sign languages. *Sign Language Studies* 15(4). 498–506. https://www.jstor.org/stable/26191000.

De Meulder, Maartje. 2017. Promotion in times of endangerment: The Sign Language Act in Finland. *Language Policy* 16. 189–208. doi:10.1007/s10993-016-9403-5.

de Vos, Connie & Ulrike Zeshan. 2012. Introduction: Demographic, sociocultural, and linguistic variation across rural signing communities. In Zeshan, Ulrike & Connie de Vos (eds.), *Sign languages in village communities: Anthropological and linguistic insights*, 2–23. Berlin: De Gruyter Mouton.

Fishman, Joshua A. 1991. *Reversing language shift*. Clevedon: Multilingual Matters.

García, Ofelia. 2009. *Bilingual education in the 21st century: A global perspective*. West Sussex: Wiley-Blackwell.

Grenoble, Lenore A. 2016. A response to 'Assessing levels of endangerment in the Catalogue of Endangered Languages (ELCat) using the Language Endangerment Index (LEI)', by Nala Huiying Lee & John Van Way. *Language in Society* 45. 293–300. doi:10.1017/S0047404515000950.

Groce, Nora Ellen. 1985. *Everybody here spoke sign language: Hereditary deafness on Martha's Vineyard*. Cambridge: Harvard University Press.

Hall, Wyatte C. 2017. What you don't know can hurt you: The risk of language deprivation by impairing sign language development in deaf children. *Maternal & Child Health Journal* 21. 961–965. doi:10.1007/s10995-017-2287-y.

Haugen, Einar. 1972. *The ecology of language*. Stanford: Stanford University Press.

Hofer, Theresia. 2017. Is Lhasa Tibetan Sign Language emerging, endangered, or both? *International Journal of the Sociology of Language* 245. 113–145. doi:10.1515/ijsl-2017-0005.

Hyde, Merv, Renee Punch, & Linda Komesaroff. 2010. Coming to a decision about cochlear implantation: Parents making choices for their deaf children. *Journal of Deaf Studies & Deaf Education* 15(2). 162–178. doi:10.1093/deafed/enq004.

iSLanDS Institute. 2013. Committee for UNESCO project on endangered sign languages announced. *iSLanDS' Blog: Live reports from the International Institute for Sign Languages and Deaf Studies (iSLanDS)* [online]. https://islandscentre.wordpress.com/2013/05/07/committee-for-unesco-project-on-endangered-sign-languages-announced/.

Johnston, Trevor. 2004. W(h)ither the deaf community? Population, genetics, and the future of Australian Sign Language. *American Annals of the Deaf* 148(5). 358–75. doi:10.1353/aad.2004.0004.

Klima, Edward & Ursula Bellugi. 1979. *The signs of language*. Cambridge: Harvard University Press.

Komesaroff, Linda R. 2007. Denying claims of discrimination in the Federal Court of Australia: Arguments against the use of Native Sign Language in education. *Sign Language Studies* 7(4). 360–386.

Krauss, Michael. 2007. Classification and terminology for degrees of language endangerment. In Brenzinger, Matthias (ed.), *Language diversity endangered*, 1–8. Berlin: Mouton de Gruyter.

Kusters, Annelies. 2012. Adamorobe: A demographic, sociolinguistic and sociocultural profile. In Zeshan, Ulrike & Connie de Vos (eds.), *Sign languages in village communities: Anthropological and linguistic insights*, 347–351. Berlin: De Gruyter Mouton.

Kusters, Annelies. 2014. Language ideologies in the shared signing community of Adamorobe. *Language in Society* 43(2). 139–158. doi:10.1017/S0047404514000013.

Ladd, Paddy. 2003. *Understanding deaf culture: In search of Deafhood*. Clevedon: Multilingual Matters.

Lanesman, Sara. 2012. *Algerian Jewish Sign Language: Its emergence and survival*. Preston: University of Central Lancashire (MA thesis).

Lanesman, Sara & Irit Meir. 2012. The survival of Algerian Jewish Sign Language alongside Israeli Sign Language in Israel. In Zeshan, Ulrike & Connie de Vos (eds.), *Sign languages in village communities: Anthropological and linguistic insights*, 153–179. Berlin: De Gruyter Mouton.

Lee, Nala Huiying & John Van Way. 2016. Assessing levels of endangerment in the Catalogue of Endangered Languages (ELCat) using the Language Endangerment Index (LEI). *Language in Society* 45. 271–292. doi:10.1017/S0047404515000962.

Lewis, M. Paul & Gary F. Simons. 2010. Assessing endangerment: Expanding Fishman's GIDS. *Revue Roumaine de Linguistique* 55. 103–120.

Marsaja, I. Gede. 2008. *Desa Kolok: A deaf village and its sign language in Bali, Indonesia*. Nijmegen: Ishara Press.

McKee, Rachel. 2017. Assessing the vitality of New Zealand Sign Language. *Sign Language Studies* 17(3). 322–362. doi:10.1353/sls.2017.0008.

Mitchell, Ross E. & Michael A. Karchmer. 2004. Chasing the mythical ten percent: Parental hearing status of deaf and hard of hearing students in the United States. *Sign Language Studies* 4(2). 138–163. doi:10.1353/sls.2004.0005.

Moseley, Christopher (ed.). 2010. *Atlas of the world's languages in danger*. 3rd edn. Paris: UNESCO Publishing.

Nonaka, Angela M. 2004. The forgotten endangered languages: Lessons on the importance of remembering from Thailand's Ban Khor Sign Language. *Language in Society* 33. 737–767. doi:10.1017/S004740450404504X.

Nonaka, Angela M. 2007. *Emergence of an indigenous sign language and a speech/sign community in Ban Khor, Thailand*. Los Angeles: University of California (PhD dissertation).

Nonaka, Angela M. 2012. Language ecological change in Ban Khor, Thailand: An ethnographic case study of village sign language endangerment. In Zeshan, Ulrike & Connie de Vos (eds.), *Sign languages in village communities: Anthropological and linguistic insights*, 278–312. Berlin: De Gruyter Mouton.

Nonaka, Angela M. 2014. (Almost) everyone here spoke Ban Khor Sign Language – Until they started using TSL: Language shift and endangerment of a Thai village sign language. *Language & Communication* 38. 54–72. doi:10.1016/j.langcom.2014.05.005.

Nyst, Victoria. 2007. *A descriptive analysis of Adamorobe Sign Language (Ghana)*. Utrecht: LOT.

Okalidou, Areti. 2010. What is needed in education for long-term support of children with cochlear implants? *Cochlear Implants International* 11(1). 234–236. doi:10.1179/146701010X12671178254033.

Pabsch, Annika. 2017. Sign language legislation as a tool for sustainability. *American Annals of the Deaf* 162(4). 365–376. doi:10.1353/aad.2017.0034.

Padden, Carol. 1990. Folk explanation in language survival. In Middleton, David & Derek Edwards (eds.), *Collective remembering*, 190–202. Los Angeles: Sage.

Padden, Carol. 2008. The decline of Deaf clubs in the US: A treatise on the problem of place. In Bauman, H-Dirksen (ed.), *Open your eyes: Deaf studies talking*, 169–179. Minneapolis: University of Minnesota Press.

Petitto, Laura. 1994. Are signed languages "real" languages? Evidence from American Sign Language and Langue des Signes Quebecoise. *Signpost (International Quarterly of the Sign Linguistics Association)* 7(3). 1–10.

Romaine, Suzanne & Larry J. Gorenflo. 2017. Linguistic diversity of natural UNESCO world heritage sites: Bridging the gap between nature and culture. *Biodiversity & Conservation* 26. 1973–1988. doi:10.1007/s10531-017-1340-x.

Safar, Josefina. 2015. Eine Analyse von Diskursen über Chicán Sign Language (Mexiko). [An analysis of discourse about Chican Sign Language (Mexico)]. *Das Zeichen* 101(1). 434–446.

Safar, Josefina. 2017. Translanguaging in Yucatec Maya signing communities. *Applied Linguistics Review*. doi:10.1515/applirev-2017-0082.

Safar, Josefina & Jenny Webster. 2014. Cataloguing endangered sign languages at iSLanDS. *iSLanDS's blog: Live reports from the International Institute for Sign Languages and Deaf Studies (iSLanDS)* [online]. https://islandscentre.files.wordpress.com/2014/08/report-endangered-sls_070814.pdf.

Sallabank, Julia. 2010. Language endangerment: Problems and solutions. *eSharp* [Special Issue on Communicating Change: Representing self and community in a technological world]. 50–87. https://www.gla.ac.uk/media/media_141050_en.pdf.
Stokoe, William. 1960. Sign language structure: An outline of the visual communication system of the American deaf. *Studies in Linguistics, Occasional Papers* 8. University of Buffalo.
Whalen, Douglas H. & Gary F. Simons. 2012. Endangered language families. *Language* 88(1). 155–173.
Wilcox, Sherman E., Verena Krausneker, & David F. Armstrong. 2012. Language policies and the deaf community. In Spolsky, Bernard (ed.), *Cambridge handbook of language policy*, 374–395. Cambridge: Cambridge University Press.
Woll, Bencie & Paddy Ladd. 2003. Deaf communities. In Marschark, Marc & Patricia Elizabeth Spencer. (eds.), *The Oxford handbook of Deaf studies, language and education*, 151–163. Oxford: Oxford University Press.
Wrobel, Ulrike. 2014. German Sign Language (DGS) as an instance of an endangered language? *JournaLIPP* [Special issue Gefährdete Sprachen – Endangered languages] 3. 27–37. https://lipp.ub.uni-muenchen.de/lipp/article/view/302.
Zeshan, Ulrike. 2007. The ethics of documenting sign languages in village communities. In Austin, Peter K., Oliver Bond, & David Nathan (eds.), *Proceedings of Conference on Language Documentation & Linguistic Theory*, 269–279. London: SOAS.
Zeshan, Ulrike. 2015. "Making meaning" – Communication between sign language users without a shared language. *Cognitive Linguistics* 26(2). 211–260. doi:10.1515/cog-2015-0011.
Zeshan, Ulrike & Connie de Vos (eds.). 2012. *Sign languages in village communities: Anthropological and linguistic insights*. Berlin: De Gruyter Mouton.
Zeshan, Ulrike & Jenny Webster (eds.). 2019. *Sign multilingualism*. Berlin: De Gruyter Mouton.

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Appendix

Adapted Survey: Linguistic Vitality and Diversity of Sign Languages

Note: Sections 1. and 2. are identical to the previous UNESCO survey for spoken languages. The other sections have been adapted for sign languages.

1. Objectives of the present survey

Our objective is to collect a large and representative sample of comparable data on the world's languages, particularly endangered and indigenous languages, with two specific purposes in mind. Firstly, following the same method as UNESCO, we will map endangered sign languages, determining their vitality level and placing them in a dedicated Atlas. Second, the data will serve to develop a methodology for an "Indicator on the Status and Trends of Linguistic Diversity and Numbers of Speakers of Indigenous Languages", as requested by the States Parties to the Convention on Biological Diversity. We hope that this questionnaire, if used on an ongoing basis into the future, will offer a basis for verifiable claims about trends in numbers of language users, language endangerment and linguistic diversity.

The first section of the questionnaire, titled "Language Vitality and Endangerment", is based on a framework that was developed by an international group of linguists in 2002-2003 to assess the degree of endangerment of specific languages. This framework has previously been applied by individual linguists, and – in a few cases – on a larger scale by national authorities, but it has not yet been used for a global-scale data collection exercise, and this is what we are currently attempting to do.

The second section of the questionnaire, titled "Linguistic Diversity Indicators", has been developed very recently and is still very much a work-in-progress. We would highly appreciate it if you could spare a few minutes and supply information under that section as well. Your feedback on the survey design and questions will also be very welcome.

Complete many questionnaires, share blank forms with colleagues

We are interested in gathering as many independent reports covering as many languages as possible, including multiple reports on the same language, which would enhance the reliability of the data and also would allow us to validate the pertinence of the questions we are asking. We are also interested to begin to create time-series data, so if you have had long-term involvement with a given language we encourage you to complete one form reporting the current status of the language and one form reporting its status when you first encountered or began working with the language. The more good data we have, the more reliable will be our generalizations and the more useful they will be for communities, researchers and policy-makers. So, we also encourage you to provide us with information about other people who can be invited to complete a questionnaire for a given language, and we encourage you to pass the survey on to others. In order to help us assess the validity of the survey instrument, it will be more useful if two observers report independently on the same situation than if two observers collaborate on a single report

2. Units of analysis: language, dialect and reference community

The primary entity to be reported in this questionnaire is a language as used in a given reference community, with particular attention in

the second half of the survey to the dialectal situation of that reference community. Better linguists than we have tried and failed to define the difference between "language" and "dialect", and we do not pretend to have a solution to that problem. We ask you to use common-sense understandings of the two terms, to identify the specific named language variety your report is specific to, and to provide us with sufficient information. This would allow us to link your report on a given language to other reports on the same or related languages or dialects. Our hope is that with the accumulation of fine-grained reports on specific communities, we will be able over time to assemble reliable and generalizable data. Where a gravely endangered language is used by only a handful of language users all living in the same village, language and dialect and reference community are coterminous. However, most reports will be only a snapshot of a specific situation in a particular locality at a certain moment. Where we have only a single report on one community for a language that is known to be used over a vaster territory, that report will serve—until others arrive—as representative. Where we accumulate multiple reports on different reference communities using the same language or dialect, we will be able to provide both fine-grained detail and more general aggregated statements. Where we receive multiple reports on the same reference community, we will be able to assess the validity of the questionnaire and, if the reports cover different time periods, to compile diachronic data.

For instance, if you are reporting on the Evenki language in China, you need not worry about reflecting the situation of this language in Russia or Mongolia (unless you fill out separate forms for those communities!). Moreover, if you consider that a group of Evenki-speakers in China forms a distinct cultural-linguistic community due to great differences in lifestyle and/or language vis-à-vis other Evenki communities, please fill in a separate form for this group. Throughout, the important thing will be that you indicate as clearly as possible what the reference community is that serves as the basis for your report, and provide sufficient identifying information about the language so that we can later link reports on the same or related languages or dialects.

Geographic coordinates

We would highly appreciate it if you could provide geographic coordinates for the reference community. This will in particular facilitate the task of mapping the languages in the new edition of the Atlas, especially in its on-line version. We hope to have both fine-grained detail and aggregated data that can allow users to zoom in from larger to smaller units.
Online tools can help you define easily such coordinates placing dots on maps or entering location names.

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iSLanDS endangered sign languages questionnaire

Between 2002 and 2010, the UNESCO survey was used for to gather information on spoken languages only, as the initial group of experts who created the questionnaire did not include any sign language linguists. From 2011 onwards, the present document has been used to collect information about endangered sign languages by the iSLanDS institute, under the patronage of UNESCO. Following this, the questionnaire has been adapted to reflect particularities of sign language using communities. We have aimed to keep questions as similar as possible to the spoken language version of the questionnaire,. However, a significant number of changes to the questionnaire have been necessary, and additional comments have been provided where necessary.

Work on the survey questionnaire for endangered sign languages has been coordinated at the International Institute for Sign Languages and Deaf Studies (iSLanDS) at the University of Central Lancashire in Preston, UK, under the direction of Prof. Ulrike Zeshan. This work is a result of a follow-up meeting of linguists about the UNESCO Survey in June 2011 in Paris, and a conference on endangered sign languages organised by the World Federation of the Deaf (WFD) and the European Union of the Deaf (EUD) in November 2011 in Norway. The questionnaire below is the result of consultation between the iSLanDS Institute, the WFD group of experts on sign languages, and various academic colleagues.

Please send any completed questionnaires, responses, and comments to the following contact address:
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Analyses of survey responses are being coordinated through an international expert group of sign linguists, and we continue to liaise with organisations such as the WFD and EUD. The results may then be added to an online database and included as data in a chapter on sign languages to be contributed to the forthcoming edition of the *Atlas of the World's Languages in Danger*. The iSLanDS Institute corresponds with all contributors before their questionnaire responses are included in order to establish the modalities of cooperation, and how respondents wish to be recognised for their input.

Progress on this project is reported on the iSLanDS website (www.uclan.ac.uk/islands) and the iSLanDS blog (http://islandscentre.wordpress.com).

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4. Guidelines for filling in the survey

Please provide a rating score for your language of expertise on each of the factors listed below, where possible. Assign those scores that come closest to describing the situation according to your expertise. If you answer falls between two score options, please pick one and then explain in the "Comments" section. Please note that not all choices are mutually exclusive, and, in some cases, it is possible to check more than one box.

For each assigned score, please also provide a 'reliability' score based on the scale below:

Reliability Index - the assigned score is based on:	
3	Evidence from fieldwork and direct observation
2	Evidence from other reliable sources
1	Very little evidence; a 'best guess'
0	No data available [no score provided]

UNESCO Survey: Linguistic Vitality and Diversity

DEFINITIONS:

The definitions given here are intended to help you complete the questionnaire. These terms are used in several questions in the questionnaire, and their meaning needs to be clear when you are answering the questions. Note that this questionnaire is intended to apply to a wide variety of socio-linguistic situations involving sign languages. Therefore, the definitions are flexible and broad, and you are welcome to adapt them to the situation of the sign language you are describing. If you use a different definition of the terms below, please include a note in the "comments" for the relevant question(s).

Reference community

For sign languages, it is not obvious what the definition of "reference community" should be because the concept of a "reference community" for spoken languages is not easily applicable to many sign language situations. In principle, the "reference community" means all people who may be expected to be using a particular language variety according to their ethnicity, heritage, culture, history and geography. If fewer and fewer people in this "reference community" actually do use this particular language, it is likely that the language will be or become endangered. For many sign languages, it is not easy to say exactly "who should be expected to use sign language" in this sense. The notion of "reference community" is however crucial for the purpose of this questionnaire and cannot be left out. It is therefore suggested that the reference community of a sign language may include the following groups of people:

a) All deaf people of all ages, except those deafened due to old age
b) Hearing relatives or spouses of deaf people:
    i. Hearing children of deaf people
    ii. Siblings of deaf people
    iii. Spouses of deaf people
    iv. Other hearing relatives of deaf people, as culturally relevant
b) Other groups of hearing people in regular contact with deaf people, if culturally relevant (e.g. neighbours, professionals such as sign language interpreters, co-workers)

Which of these categories are included in the calculation of reference community (e.g. only group a., groups a. and b.i., or all groups) is a matter of individual judgment. Membership in the reference community would include linguistic and cultural aspects such as identity, visual culture, fluency in the sign language, etc, and these need to be taken into account when thinking about the reference community. Moreover, the categories may be specified further, e.g. to include only younger siblings, or to exclude deaf children with cochlear implants.Category c) will always depend on the local culture.

Sometimes it may make sense to talk about several reference communities for one and the same sign language. For example, Indo-Pakistani Sign Language users in Pakistan could be a separate reference community, although users of Indo-Pakistani Sign Language live in both India and Pakistan. Also note that in the case of "deaf villages", i.e.. rural communities with a high incidence of hereditary deafness where a local sign language has been developed and is used by both deaf and hearing people, the reference community may simply comprise the entire village.

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The following is a fictitious example of a calculation of reference community size. In this example, deaf people including deaf children with cochlear implants, children of deaf people, younger siblings of deaf people, and sign language professionals are defined as members of the reference community. For the estimate, statistical data (birth rate, percentage of adult population) from the target group has been used, and it can often be helpful to use such statistics if available. (Such statistics may be found on government census websites, universities or from deaf organsiations). This calculation is only one (invented) example, and the aim is only to give a broad estimate, as detailed calculation will usually be impossible. In a different situation, different groups of people will make up the reference community. Which groups are included depends on your individual judgment as the respondent to the questionnaire.

Example calculation:		
Number of deaf people (excluding old age deafness):	15,000	15,000
Percentage of population over 18 years old	70%	
Number of deaf adults:	70% of 15,000 = 10,500	
Birth rate:	3.4 children per woman:	
Number of children of deaf adults:	5,250 women x 3.4	17,850
Number of siblings of deaf people:	15,000 x 2.4 siblings = 36,000	
Number of younger siblings of deaf people:	two thirds of 36,000 = 24,000	24,000
Number of sign language interpreters:	150	150
Number of sign language specialists in deaf schools:	300	300
Total size of reference community:		**57,300**

Sign language user

A sign language user (signer) is anyone who uses the natural sign language variety of the reference community in conversations at least some of the time. This is irrespective of the person's hearing status, that is, sign language users may be deaf, hearing, or hard of hearing. Persons who use a contrived signing system (such as Signed English) only for educational purposes are not sign language users for the purpose of this questionnaire.

Target sign language

This is the sign language about which you are reporting in this questionnaire. There may be other sign languages used in the reference community. For example, you may be describing a minority sign language as a target sign language in a community where a larger, majority sign language is also used; or there may be two quite different sign language dialects within a reference community, one of which is the target sign language you are describing in the questionnaire answers.

Non-dominant languages

Where this term appears, this should, in principle, be taken to mean both spoken and signed languages, unless otherwise specified. However, we are not primarily interested in non-dominant spoken languages, so include these only if there are specific reasons for doing so.

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BACKGROUND INFORMATION

Name of the language being described in this report: Please describe the sign(s) used locally to refer to the sign language, and if available, also include a picture of the sign(s), e.g. the sign for SIGN-LANGUAGE	
Alternative names of the language: Please state the name of the language in the local spoken language(s), as well as in English.	
ISO 639 code(s) of the language (can be obtained from here: http://www.sil.org/iso639-3/codes.asp). Please comment if you have any reservations about the ISO code(s):	
Genetically related sign languages / language family: Please give any information concerning genetically related sign languages if available, especially if there is research or information available on the relationship.	
Country/ies where the reference community whose language is being described is located:	
AND/OR Province(s) / region(s) where the community is located:	
AND/OR Reference community (village/town) where the language described is used:	
Geographic coordinates of the community whose language is being described (if possible in a decimal format. Multiple entries are welcome. For help, please refer to the paragraph "Geographic coordinates" in the introduction). Please also comment on the accuracy of the geographic coordinates you are providing:	
Year of the data reported in this report:	
Name, address and E-mail address of expert providing report: Also state how you know the language, e.g. are you a (sign) linguist who is also a native user of the language in question, a (sign) linguist in cooperation with a native user, a non-linguist from the sign language community, etc.	
Would you like to have your name associated with this data when it is displayed?	
Name(s) and E-mail address(es) of other linguist(s) who could provide independent information on this language: Anthropologists, deaf studies researchers, leaders of deaf organisations, and/or government officials may also be mentioned here.	

UNESCO Survey: Linguistic Vitality and Diversity

SECTION I: Language Vitality and Endangerment within the reference community

1a. Overall vitality / endangerment score:	5 ☐ The language is safe 4 ☐ Unsafe/ vulnerable 3 ☐ Definitely endangered 2 ☐ Severely endangered 1 ☐ Critically endangered 0 ☐ Extinct	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐	**Comments**

Note: You will be asked at the end of this questionnaire to detail your reasons why you have assigned a particular score here. In conjunction with this questionnaire, it may be useful for you to read the UNESCO report on "Language Vitality and Endangerment" which can be found at http://unesdoc.unesco.org/images/0018/001836/183699E.pdf

1b. Most prominent threat(s) to the sign language (tick all that apply):	☐ Increasing cochlear implantation ☐ Influence of foreign sign languages ☐ Negative attitude from the majority ☐ Government's indifference ☐ Lack of interest from young people ☐ Increasing fragmentation of deaf community due to communication technology (e.g. mobiles, internet) ☐ Use of a more dominant sign language ☐ Use of an artificial signed code ☐ Other (specify) ☐ Unknown ☐ Not applicable	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐	**Comments**

2. Number of sign language users	**Please provide the number here for**: a) Number of sign language users in this reference community b) Absolute number of users of the sign language	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

Note: In many cases, these two numbers will be the same, but they could be different if it makes sense to talk about several reference communities for a sign language. For example, Indo-Pakistani Sign Language users in Pakistan could be a reference community under a), and the absolute number of users of Indo-Pakistani Sign Language would include signers in both India and Pakistan under b). These numbers should not include people who used the language previously but now no longer use it (e.g. due to emigration).

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3. Proportion of signers within the reference community		**Reliability Index:**	**Comments (including the size of the reference community, if known)**
	5 ☐ Nearly all use the sign language (>90%) 4 ☐ The great majority use the sign language (70-90%) 3 ☐ A majority use the sign language (50-70%) 2 ☐ A minority use the sign language (30-50%) 1 ☐ Very few use the sign language (<30%) 0 ☐ None use the sign language (i.e. the language no longer exists)	3 ☐ 2 ☐ 1 ☐ 0 ☐	

Note: Please refer to the definition of reference community above.

Note: The following question is only for situations where a new sign language is emerging, which is used only by younger signers and has no longer history. Therefore, options 2-5 consider only people in age groups of the oldest available signer and younger, where the oldest signer could be at any age, for example, a young adult. It is very difficult to decide whether a variety of signing is a "young/emerging sign language" or an instance of home sign. Criteria include the size and stability of a community of sign language users, the number of generations using the language (time depth), and the level of conventionalisation.. Systems ranking low on these criteria may be home sign systems, but the decision needs to be made by the individual respondent. There is probably a continuous scale of signing varieties along these (and other) criteria. Home sign systems are outside the scope of this questionnaire, so if you think you are dealing with a home sign system, the questionnaire will not apply. See also the note under 4a. about the meaning of "competent" sign language use.

4a. Generational or age-group language use		**Reliability Index:**	**Please specify whether your answers pertain to 'generation' or 'age group', and add further comments if desired.**
	5 ☐ All generations / age groups, including most children, use the language competently 4 ☐ Most adults and some children use the language competently 3 ☐ There are few child signers, and many in the parent generation / age group have considerable interference from language contact with other signed/spoken languages 2 ☐ Only some in the parent generation / age group, and older, use the language competently 1 ☐ Only grandparents and older generations / age groups use the language competently 0 ☐ Nobody uses the language any more ☐ Other specific situation (please describe in comments box)	3 ☐ 2 ☐ 1 ☐ 0 ☐	

Note: Using the sign language "competently" means using its own native vocabulary and native grammatical structures. When people use signs in the order of a spoken language to make it parallel to speaking, when a lot of fingerspelling and/or borrowing from another sign language's vocabulary is used, when people accompany their speech with some signs unsystematically, and/or when an artificial signed code is used instead of the natural sign language, these are features of interference from language contact. If you are responding in terms of age groups, you can specify in the comments box what age ranges you are considering.

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4b. Generational language use (emerging sign language)		**Reliability Index:**	**Comments**
	5 ☐ From the generation of the oldest signer down to the youngest, all generations use the language competently. The oldest signer may belong to any age group, and there may be no signers older than that age group, due to the recent emergence of the language. 4 ☐ A substantial sub-section of age groups from the oldest signer "downwards" uses the sign language competently, but the language is starting to be lost from some age groups e.g. the youngest ones. 3 ☐ A smaller sub-section of age groups from the oldest signer "downwards" uses the sign language competently, and the language has been lost in several age groups. 2 ☐ There are only some signers left in the age groups from the oldest signer "downwards", and most have shifted away from the language. 1 ☐ Only a handful individuals still use the sign language, and everyone else has shifted to other language(s). 0 ☐ Nobody uses the language any more	3 ☐ 2 ☐ 1 ☐ 0 ☐	

5. Domains of language use		**Reliability Index:**	**Comments**
	5 ☐ The target sign language is used in all domains where one or several deaf people are involved in the communication 4 ☐ Multilingual parity: Two or more (signed and/or spoken) languages are used in most social domains and for most functions; the use of the target sign language is usually rare in the official domains (e.g., government, business, administration, formal education, etc.) but is very present in the community's public domains (e.g., deaf school dormitories, community gatherings, etc.) and informal domains (e.g. in families). 3 ☐ Dwindling domains: The target sign language is still used in informal domains, including the home, but the dominant (signed and/or spoken) language(s) are increasingly intruding into these domains. 2 ☐ Limited domains: The target sign language is used in limited social domains, for limited functions 1 ☐ Highly limited domains: The target sign language is used only in very restricted domains, for very limited functions 0 ☐ No longer used: The language is not used in any domain at all	3 ☐ 2 ☐ 1 ☐ 0 ☐	

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6. New domains, i. e. new media, including broadcast media and the Internet.	4 ☐ The sign language is frequently used in new domains 3 ☐ The sign language is sometimes used in new domains 2 ☐ The sign language is rarely used in new domains 1 ☐ The sign language is never used in new domains 0 ☐ Not applicable; broadcast media and internet are not available in the reference community	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

7. Materials for language spread and education	5 ☐ The language is used in administration and education, and a wide range of video materials with fiction, non-fiction and everyday media is readily available 4 ☐ Video materials exist and are promoted in society and education. The language is not used for official purposes (administration, government, law). 3 ☐ Some video materials exist and children may be exposed to the language at school, but sign language is not promoted through mass media. 2 ☐ Video materials exist but they may be useful only for some members of the community. Education in the sign language is not a part of schooling. 1 ☐ Videos are sometimes made by individuals in the community. 0 ☐ No video materials are available to the community.	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

8. Governmental and institutional language attitudes and policies, including official status and use	5 ☐ Equal support for all languages, including the natural sign language of the reference community. 4 ☐ Differentiated support: The natural sign language is protected primarily as the language of the private domain. It may be in competition with an artificial signed code. 3 ☐ Passive assimilation: dominant signed and/or spoken languages prevail in the public domain, and no explicit policy exists for spoken or signed non-dominant languages including for the target sign language. 2 ☐ Active assimilation: Government encourages shift to the dominant signed and/or spoken language(s). There is no protection for spoken or signed non-dominant languages, including for the target sign language. 1 ☐ Forced assimilation: The use of spoken or signed non-dominant languages, including the target sign language, is discouraged; the target sign language may be neither recognized nor protected by the Government. 0 ☐ Government and institutions do not recognize that sign languages are natural human languages at all.	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

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9. Use of the target sign language in deaf education	5 ☐ There is a national / regional / local policy to support the use of the target sign language as part of the curriculum in all deaf schools. 4 ☐ Deaf schools are encouraged to use the target sign language, and resources are provided, but this is done on a choice basis at some schools only. 3 ☐ No particular language policies / guidance are implemented in deaf schools, but the target sign language is used widely in an ad hoc way, and attitudes 'on the ground' may be positive. 2 ☐ No policy or resources support the use of the target sign language, and there is a negative view towards sign language in deaf education. 1 ☐ The use of signing is explicitly discouraged or prohibited in deaf education. 0 ☐ Not applicable – there is no formal education for deaf children. ☐ Other (please describe in comments box)	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

Note: Please comment on whether the target sign language is in competition with an artificial signed code, or with a larger, majority sign language. If the target sign language is not supported in deaf education, but another form of signing is supported, please mention which sign language or signed code is used in education.

10. Reference community members' attitudes towards their own sign language	5 ☐ All members value the language of their community and wish to see it promoted. 4 ☐ Most members support the continued use of their language. ☐ Most members value the sign language, but the most important stakeholders do not. 3 ☐ Many members support language maintenance; some are indifferent or may even promote shift to the dominant language. 2 ☐ Some members support language maintenance; many are indifferent or may even support language shift. 1 ☐ Only a few members support language maintenance but most are indifferent or may even support shift to the dominant language. 0 ☐ No-one cares if the language disappears; all prefer to use the dominant language.	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments:**

Note: If available and relevant, you may include information about the attitudes of specific sections of the community in the comments section.

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11. Type and quality of documentation	5 ☐ Superlative: There are comprehensive grammars and dictionaries, extensive texts and a constant flow of language materials. Abundant annotated high-quality video recordings exist. 4 ☐ Good: There is at least one good grammar, a few dictionaries, texts, literature, and everyday media; adequately annotated high-quality video recordings are available. 3 ☐ Fair: There may be an adequate grammar, some dictionaries, and texts, but no everyday media; video recordings may exist in varying quality and with varying degree of annotation. 2 ☐ Fragmentary: There are some grammatical sketches, wordlists, and texts useful for limited linguistic research but with inadequate coverage. Video recordings may exist in varying quality, with or without any annotation. 1 ☐ Inadequate: Only a few grammatical sketches, short wordlists, and fragmentary texts exist. Video recordings do not exist, are of unusable quality, or are completely un-annotated. 0 ☐ Undocumented: No material exists.	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments (Please note whether the materials are specific to this reference community and whether they are available to them)**

12. Status of language programs	5 ☐ Successful: A regular and successful program is running involving >5 per cent of the community. 4 ☐ Good: A program is running with two of the following characteristics: regular; successful; involving >5 per cent of the community. 3 ☐ Fair: A program is running with one of the following characteristics: regular; successful; involving >5 per cent of the community. 2 ☐ Basic: A program is running involving <5 per cent of the community, irregularly and with few or no outcomes. 1 ☐ Aspiring: No language programs but some community members are talking of starting one. 0 ☐ None: No language program and no interest in starting one.	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

Note: A language program is a program that aims to promote the use and maintenance of the language. This can take various forms such as language summer schools for students, summer camps with language elements for children, mentoring of younger signers by older signers, promoting sign language teaching to hearing people (e.g. "sign language week"), or sign language competitions (e.g. poetry, theatre, comedy). Language programs can be located inside or outside formal schooling. Sign language activities that take place in deaf schools can also be covered under question 10.

Thank you for filling in Section I. If you feel you have enough information to answer the questions in Section II, please proceed. However, if you do not feel able to do Section II, please send us Section I only.

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SECTION II: Linguistic Diversity

In this section, please describe the reference community as above in Section I. (If you do not have enough information to complete Section II, please return Section I only.) Assign scores for the following factors (where possible and where relevant) to characterize the linguistic situation and experience in the reference community:

(a) External diversity, i.e. linguistic environment:

13a. In everyday life, how many languages would a typical deaf member of this community encounter:		**Sign**	**Read/ Write**	**Speak/ lipread**	**Reliability Index:**	**Comments**
	5 or more languages	☐	☐	☐	3 ☐	
	4 languages	☐	☐	☐	2 ☐	
	3 languages	☐	☐	☐	1 ☐	
	2 languages	☐	☐	☐	0 ☐	
	1 language	☐	☐	☐		
	0 It is not possible to define a typical community member					

Note: This may be identified in detail through focal following, or may be estimated on the basis of interviews, personal experience, etc. A 'typical member' might be described as someone who is accepted by the majority of the sign language community, and would be identified by them unequivocally as a user of the language, but there may be situations where a 'typical member' cannot or should not be defined.

13b. In everyday life, how many languages would a typical hearing member of this community encounter:		**Hear**	**Speak**	**Read**	**Write**	**Sign**	**Reliability Index:**	**Comments**
	5 or more languages	☐	☐	☐	☐	☐	3 ☐	
	4 languages	☐	☐	☐	☐	☐	2 ☐	
	3 languages	☐	☐	☐	☐	☐	1 ☐	
	2 languages	☐	☐	☐	☐	☐	0 ☐	
	1 language	☐	☐	☐	☐	☐		
	0 It is not possible to define a typical community member							

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14a. In how many languages is a typical deaf member of this community at least partially fluent? [1]	☐ 5 or more languages ☐ 4 languages ☐ 3 languages ☐ 2 languages ☐ 1 language ☐ 0 It is not possible to define a typical community member	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**
Which one(s)?			

Note: Please state in brackets whether each language is signed or spoken/written, if this is not already clear from the language's name.

14b. In how many languages is a typical hearing member of this community at least partially fluent? [2]	☐ 5 or more languages ☐ 4 languages ☐ 3 languages ☐ 2 languages ☐ 1 language ☐ 0 It is not possible to define a typical community member	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**
Which one(s)?			

15. How many languages are represented in the local schools that are attended by deaf children?		**Tolerated**	**Taught as subject**	**Used for instruction**	**Reliability Index:**	**Comments**
	5 or more languages	☐	☐	☐	3 ☐	
	4 languages	☐	☐	☐	2 ☐	
	3 languages	☐	☐	☐	1 ☐	
	2 languages	☐	☐	☐	0 ☐	
	1 language	☐	☐	☐		
Which one(s)?						

Note: This means schools attended by at least one deaf person and includes schools within daily commuting range as well as boarding schools. The term 'tolerated' means that using the language at school is not prohibited. If there is differential information for mainstream schools and boarding schools, mention this in the comments.

[1] 'Partially fluent' is here defined as able to engage in basic conversation and understand most of what is said.
[2] 'Partially fluent' is here defined as able to engage in basic conversation and understand most of what is communicated.

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16a. How many languages are represented in the local media?		**TV**	**Radio**	**Print**	**Internet**	**Reliability Index:**	**Comments**
	5+ languages	☐	☐	☐	☐	3 ☐	
	4 languages	☐	☐	☐	☐	2 ☐	
	3 languages	☐	☐	☐	☐	1 ☐	
	2 languages	☐	☐	☐	☐	0 ☐	
	1 language	☐	☐	☐	☐		
Which one(s)?							

Note: Local media includes nationwide media.

16b. How is sign language represented on television?	5 ☐ Regular broadcast time is assigned and being expanded continuously. 4 ☐ Only a single or a couple of regular broadcasts, with no plans for expansion. 3 ☐ Sign language appears irregularly, in an ad hoc way, and may be in competition with an artificial signed code. 2 ☐ An artificial signed code is promoted on television and natural sign language is discouraged. 1 ☐ Sign language never appears on television 0 ☐ Not applicable – television is not available ☐ Other (please describe in the comments box)	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

16c. What kind of official support and specific resources for the target sign language exist outside education, legislation and the media?	5 ☐ Language board or similar body 4 ☐ Sign language association or organisation 3 ☐ Publishing in sign language, e.g. Bible translation, DVDs, or online publication 2 ☐ Internet-TV channel or similar outlet 1 ☐ No official support outside education, legislation and the media 0 ☐ Not applicable ☐ Other (please describe in the comments box)	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

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(b) Internal diversity in the language:

17. Would you say this language is characterized by high internal (dialectal) or idiolectal diversity?	5 ☐ Very high internal / idiolectal diversity 4 ☐ High internal / idiolectal diversity 3 ☐ Moderate internal / idiolectal diversity 2 ☐ A little internal / idiolectal diversity 1 ☐ Virtually no internal / idiolectal diversity	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

Note: If information is available, you may commentabout likely factors that make the language community in question refer to their signing variety as a separate language.

18. In how many sign language dialects is a typical member of this reference community fully or partially fluent?	☐ More than 2 dialects ☐ 2 dialects ☐ 1 dialect ☐ It is not possible to define a typical community member	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**
Which one(s)?			

19. How equal are the dialects in numbers of users?	5 ☐ Each dialect has equal numbers 4 ☐ Several dialects have sizable numbers of users 3 ☐ Two dialects predominate 2 ☐ One dialect predominates, but other dialect(s) have good numbers of users 1 ☐ Over two thirds of users use one dialect 0 ☐ One dialect is used by virtually all users	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**
Which one(s)?			

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20. How equal are the dialects in symbolic status and prestige?	5 ☐ Dialects are fully equal in status/prestige 4 ☐ Several dialects have parity in status/prestige 3 ☐ Two dialects have higher status/prestige than other dialects 2 ☐ One dialect has higher status/prestige than all other dialects 1 ☐ One dialect has lower status/ prestige than all other dialects	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**
Which one(s)?			
What is the status and prestige of the target sign language dialect(s) for this questionnaire?			

21. Would you say this sign language is characterized by high stylistic diversity, i.e., a variety of different registers and styles are commonly used in interaction?	5 ☐ Very high stylistic diversity, frequently encountered 4 ☐ High stylistic diversity, often encountered 3 ☐ Moderate stylistic diversity, often encountered 2 ☐ Some stylistic diversity, occasionally encountered 1 ☐ Little stylistic diversity, encountered infrequently 0 ☐ Virtually no stylistic diversity	**Reliability Index:** 3 ☐ 2 ☐ 1 ☐ 0 ☐	**Comments**

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Overall assessment of vitality/endangerment. Please detail your reasons for assigning the overall vitality/endangerment score in question 1:

Overall comments and suggestions regarding this questionnaire:

Many thanks for your effort in providing this information. After submission, the project team will be in contact with you about follow-up. If you have follow-up questions yourself, please email:

Jenny Webster: jmbwebster@uclan.ac.uk