



Background paper prepared for the 2016 Global Education Monitoring Report

Education for people and planet: Creating sustainable futures for all

Addressing language of instruction issues in education: Recommendations for documenting progress

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Abstract

This paper offers evidence-based recommendations for documenting international progress towards addressing language issues in education. The focus is on adapting the school language(s) of instruction to the home language(s) of learners. The paper begins by defining terms like L1 and explaining the concepts underlying multilingual education (MLE). Next there is a discussion of how to capture relevant linguistic and educational information from policy documents and linguistic sources, with examples from low-income countries. This is followed by a set of questions that can and should be asked of any program to evaluate progress in addressing instructional language issues, focusing on the approach/methodology, teacher languages and skills, learner assessment, and program management, monitoring and evaluation. The paper concludes with some possible global indicators and suggestions for further research.

Introduction

Target 4.5 of the Sustainable Development Goals, signed by 193 countries at the United Nations General Assembly in September 2015, calls on countries to “eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, [I]ndigenous peoples and children in vulnerable situations” by 2030 (United Nations 2015). One critical dimension of equity is whether or not the language(s) of instruction allow the learner to access initial and continuing literacy as well as other content of the school curriculum. Is the learner taught and assessed in a language s/he understands and speaks well? Does instruction draw on the learner’s prior experience and resources to construct new knowledge? Are teachers able to use languages in which they themselves are proficient to provide relevant instruction to learners? These dimensions of equity need to be addressed, and they need to be measured and monitored.

The purpose of this paper is to examine methods of assessing progress, including the development of indicators, with regard to the use of appropriate languages for teaching and learning. Most attention is paid to the pre-school and primary levels of formal education, since these are the levels that experience language-based inequities most acutely, though most considerations and recommendations are arguably valid for youth and adult literacy programs and higher levels of education as well.

The mismatch between home and school languages has long plagued education systems worldwide, but is particularly problematic in low-income countries, including those whose colonial legacies burdened them with exogenous (foreign) languages in formal and official domains, as well as those where certain politically powerful languages dominated over others. The “one nation, one language” ideology that continues to prevail internationally has caused confusion with regard to education policy, where dominant languages are considered self-evident languages of instruction in complete disregard for what is most practical or effective in terms of pedagogy. Exclusive use of dominant languages for instruction has been criticized for decades as negatively impacting learners’ access to knowledge, the quality of classroom teaching they are offered, the validity of assessment of their learning, and any future opportunities they may have for education or work (UNESCO 1953; Modiano 1974; OAU 1986; Prah 1995). As many scholars have pointed out (see e.g. Heugh 2011), simply using a foreign language as medium of instruction does not guarantee effective learning of that language.

The use of learners’ own languages for literacy and learning across the curriculum provides a solid foundation for basic and continuing education and for transfer of skills and knowledge to additional languages. This has been established by large-scale research in North America (Cummins 2009; Thomas & Collier 1997, 2002) and substantiated in low-income settings, particularly in Eritrea and Ethiopia, whose systems use learners’ home languages for up to eight years of primary schooling (Walter & Davis 2005; Heugh et al 2012). In educational development, there is a growing recognition of the role played by language of instruction in educational access, quality and equity, particularly for groups that have been socially marginalized (ADEA 2010; Ouane & Glanz 2011; UNESCO 2010, 2012). Use of learners’ own languages has been linked to increased parent involvement (Ball 2010) and greater participation of girls and women in education (Hovens 2002; Benson 2004; Lewis & Lockheed 2012). Most recently, the Early

Grade Reading Assessment (EGRA), despite its limitations in accounting for linguistic variation (Schroeder 2013; Graham & van Ginkel 2014), seems to have raised awareness on the part of government officials and development professionals alike that at least initial reading and writing should be taught in learners' own languages (Benson & Wong 2015).

Raised awareness is not enough. An estimated 40 percent, or 2.3 billion, of the world's people still lack access to instruction in a language they speak or understand (Walter & Benson 2012). According to the World Bank (2005), 50 percent of the world's out-of-school children live in communities where the language of the school is different than the language of the home. These rough figures are based on the cross-referencing of national populations, language demographics and education policies. Further cross-referencing will demonstrate the extent of the problem in countries whose dominant educational languages are only spoken at home by elite minorities, like Spanish in Equatorial Guinea or French in Benin (Albaugh 2012). The development of effective indicators could prompt the collection of more and better data on language use, literacy and proficiency in sub-national contexts like communities and schools, generating greater national and international attention toward addressing language issues in education.

This paper aims to contribute to the development of effective indicators regarding language of instruction. Beginning with a discussion of key terms and concepts, the paper continues by discussing how relevant linguistic and educational information can be captured from policy documents and linguistic sources, with examples from a range of low-income countries. Next comes the presentation of a set of questions that could be asked of any program to evaluate progress in addressing educational language issues, focusing on the approach/methodology, teacher languages and skills, learner assessment, and program management, monitoring and evaluation. The paper concludes with some possible global indicators and suggestions for further research.

Terms and concepts

Addressing the home-school language mismatch means using a language the learner understands and speaks well for some or all instruction. The learner's best language has traditionally been known as the mother tongue or L1. Bi-/multilingual people may have several L1s, which are defined by Skutnabb-Kangas (2000) as the language(s) that an individual (a) *has learnt first*; (b) *identifies with*; (c) *knows best*; and/or (d) *uses most* (see also UNESCO, 2003). Benson & Kosonen (2012) add (e) *speaks and understands competently enough to learn age-appropriate academic content* to account for bi/multilingual learners as well as for educational systems that use languages of the wider community (see e.g. Mohanty 2006 regarding education in multilingual India). It is thus important to assess which languages individual learners speak proficiently at the time they enter school.

In social, economic, political and other forms of marginalization, learners' L1s are often considered non-dominant languages (NDLs) relative to one or more dominant languages (DLs), which hold official status and command high prestige (Kosonen & Benson 2013). The term NDL is preferred to "minority language" because even so-called minority groups may be quite large, like speakers of Afan Oromo, who number over 17 million in Ethiopia alone (Lewis et al 2016). The term NDL calls attention to a group's oppressed status, which is arguably more important to consider when discussing education policy and school use of learners' home languages. NDLs include non-standard varieties or dialects of standard languages, as well as contact languages like pidgins and creoles, many of which have been successfully used in educational programs (see e.g. Siegel 1997).

Most school systems aspire for students to achieve high proficiency in a DL, which is often called a "second" language (L2). L2 is a term from North American bilingual education that connotes a language used in the school and community, learned after the L1 and drawing on learners' experiences outside the classroom. A comparable scenario might be a widely spoken language like Kiswahili in Tanzania, which is not necessarily spoken by young children entering school (Qorro 2006) but may be heard in the wider community. However, in low-income multilingual countries it is more often the case that the so-called L2 is actually foreign to learners, and that their main source of input in that new language is the teacher, whose own proficiency may be limited. Because it cannot be assumed that students are exposed to the language outside the classroom, the term Lx is preferred for any additional language taught in the school system.

One pedagogically sound approach to addressing language issues in education is known as mother tongue-based multilingual education (MTB MLE) or L1-based MLE (UNESCO 2013). This approach involves teaching initial literacy (reading and writing) in the L1, teaching an Lx as an additional language using appropriate methodology, gradually promoting transfer of literacy skills from L1 to Lx, and gradually moving from L1 as language of instruction (LOI) to using both L1 and Lx through bilingual methods. Transfer between languages means that reading skills only have to be taught once in life (Bialystok et al 2005). However, the minimum time period recommended for effective language and literacy development is at least five to seven years in well-resourced contexts (Heugh 2011). The recommendation is for an additive approach that does not try to erase or remove the learner's strongest language from the learning

process, but rather builds a strong foundation of literacy and cognitive (thinking) skills in the L1 that can be transferred to an Lx (Cummins 2009). In some programs, a third Lx is added, building on skills in the other languages.

It should be noted that the current approach taken by many L1-based programs is to use the learner's own language only for one to three years, which is known as an "early-exit transitional" model. While this is much better than ignoring the L1 (Alidou & Brock-Utne 2011), it is considered a weak approach because it does not develop a strong foundation in the L1 nor adequate Lx proficiency for learners to effectively "transition" into exclusive use of the Lx as LOI (Cummins 2009). Around grade 3, just as the curriculum focus switches from "learning to read" to "reading to learn," this model forces learners to receive most or all instruction through the Lx, which is not cognitively or linguistically possible for them to do (Heugh 2011). Although research shows that learners do better in early-exit bilingual programs than in monolingual Lx programs, great differences cannot be demonstrated, for two reasons: first, assessment is usually done only in the Lx, which does not allow learners to show what they can do in their L1; and second, learners have not had sufficient time to develop the skills needed to promote cross-linguistic transfer (Bialystok et al 2005; Cummins 2009). Early-exit programs can be greatly improved upon if study of the L1 as a subject is extended at least through the end of the primary cycle, which helps learners further develop and maintain their L1 literacy skills, giving them in turn more skills and knowledge that are transferable to the Lx.

Capturing relevant linguistic and educational information

There are quite a few sources of information for documenting educational language issues and planning for change. International indices of linguistic diversity (Greenberg 1956; Harmon & Loh 2010) are used by the Ethnologue (Lewis et al 2016)¹ to quantify linguistic diversity over time and by country; these have been used by UNESCO (2009) to discuss cultural diversity, and could be cross-referenced with factors like poverty and language policy to reach conclusions about the degree to which educational systems are addressing the needs of their learners. Ethnologue is the most authoritative source of data on the world's living² languages, which are represented by country and across national borders, using the ISO 639-3 criteria for defining languages in relation to varieties or dialects.³ All users should be aware that language classification can be misused to deny people the right to use their own speech varieties, or it can be extremely helpful in identifying local standards in preparation for educational use.

Useful data from national sources include census results, but it is important to look into how questions have been asked so that appropriate linguistic and cultural data are gathered for educational planning, especially with regard to the most socially marginalized groups. Data collected at the regional or local levels, while small-scale, may prove to be more accurate. For example, it is likely that community leaders know which language(s) are spoken by community members. Table 1 describes some of the most relevant linguistic and educational information that can be collected to support the initiation, expansion or maintenance of L1-based MLE programs. Next, I discuss each element and provide examples from low-income country contexts.

¹ See Table 7 on the distribution of living languages in the world by country, and Table 8 on linguistic diversity by country at <https://www.ethnologue.com/statistics/country>

² Beyond living languages, Lewis et al (2016) characterize all known languages, even those that no longer have speakers, along the Expanded Graded Intergenerational Disruption Scale at <http://www.ethnologue.com/about/language-status>

³ These criteria, along with caveats, are available at <https://www.ethnologue.com/about/problem-language-identification>

Table 1: Relevant linguistic and educational information

Category	Information needed	Potential sources of information
National policies		
Language policy	Which language(s) are given certain status (official, national) over others?	Constitution
	What rights or protections are guaranteed based on linguistic/cultural background? Do they include all linguistic/cultural groups?	Ratified international treaties or conventions
	Does social policy inhibit, enable, enhance or promote rights or protections based on linguistic/cultural background?	Laws
	How are policies operationalized and enforced?	
Educational language policy	Which languages(s) are to be used in education, how, and for what purposes?	Constitution
	What levels of proficiency should be attained in each language and at what point in the education system?	Education laws
	What provisions are made for using learners' L1s in education, how, and for how long?	Ministry of Education policy, curriculum guidelines and/or procedural documents
	What structural supports are given, and what human and material resources are supplied to support policy?	
	How are policies operationalized and enforced?	
Linguistic information		
Linguistic and socio-linguistic	Which languages are spoken, where, and by which age groups (children/youth/adults/elders)?	National census, demographic surveys
	What levels of bi- or multilingualism are common, where, and for what reasons?	Ethnologue (Lewis et al 2016)
	Which varieties/dialects exist for each language, what is their mutual intelligibility, and are there harmonized forms or accepted standards?	NGOs
	To what degree are different age groups exposed to the Lx?	Language mapping
	What is the linguistic proximity between the L1 and the Lx?	University linguists
		Ministry of Culture
Orthographic and literacy-related	Which orthographic conventions exist for each language, and what is the level of agreement if there are two or more ways of writing?	Radio broadcasters
	What proportion of adult speakers are literate in each language?	Ethnologue (Lewis et al 2016)
	What type of training will teachers need to learn the orthographic conventions of the L1 for education?	University linguistics departments
	What is the orthographic proximity between the L1 and the Lx (to what degree are the writing systems shared)?	Government ministries of education and/or culture
		NGOs

School- and community-based

Learners' linguistic skills	Which languages are spoken, where, and by how many children entering school?	District or school-based language mapping
	If family members engage in literacy practices, which languages?	Self-reports by families when enrolling children
	If there are two or more L1s spoken in one community/school/ classroom, how are learners organized?	Teacher-family discussions
	To what degree are learners exposed to the Lx outside the school?	Self-reports by learners Language mapping
Teachers' linguistic skills	What are teachers' levels of oral and written proficiency in the language(s) of learners?	Teacher placement records
	Are teachers placed appropriately according to their proficiencies in learners' L1s and in the Lx?	District or school-based records
	If there are two or more L1s spoken in one community/school/ classroom, how are teachers organized?	Principal reports
	If teachers have limited exposure to the Lx, are those with the highest proficiency tasked with teaching the Lx?	Teacher self-reports

National policies on language

With regard to national language policy, important sources of information are official policy documents, the national constitution, and laws related to linguistic and cultural groups within the country. The first question is which language(s) are given a certain status over others, for example by designating them as “official” (used in public domains like government) or “national” (considered main languages in the country) (Faingold 2004). In many post-colonial contexts, particularly in multilingual African countries, the distinction between official (European) and national (African) languages “ironically highlights...the social distance between the elite and the masses (Alexander 2007: 5). One interesting example is South Africa, whose 1996 Constitution (Section 6) reads, “The official languages of the Republic are Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, Afrikaans, English, isiNdebele, isiXhosa and isiZulu”⁴ (see also Alexander 2007: 8). Neville Alexander, a key actor in language policy development in South Africa, later explained that the official language policy had “little, if anything, to do with strategic vision” on the part of government but rather came about because giving equality of status to Afrikaans and English, two dominant languages, in post-apartheid South Africa meant conceding equality of status to non-dominant languages that had previously enjoyed national and/or regional official status (Alexander 2007: 7). Even if the constitutional decision did not spell out what should be done in practice, Alexander

⁴ <http://www.gov.za/documents/constitution/chapter-1-founding-provisions#5>

believed that symbolic recognition of NDLs could be “enabling” in terms of allowing educators to move forward with L1-based learning programs.

Constitutional law may also address the second question of what rights or protections are guaranteed based on people’s linguistic and/or cultural backgrounds, as well as the third question about whether social policy inhibits, enables, enhances or promotes rights or protections based on people’s linguistic and/or cultural backgrounds. Education may or may not be mentioned. One example is Vietnam, where the national and official language is Vietnamese (the language of the Kinh, who constitute approximately 86 percent of the population), where 54 “ethnic communities” are officially recognized but where an estimated 100 languages are spoken (Kosonen 2013; Leclerc 2012; Lewis et al 2016). The linguistic and educational rights afforded citizens under Vietnam’s constitutions have changed, beginning with the first which clearly stated that “[C]itizens of ethnic minorities shall have the right to be educated in their own language” (Constitution of Vietnam 1946⁵, Article 15, in Kosonen 2013: 41). Later constitutions have been less explicit; the current constitution in force since 1992 says, “Every nationality has the right to use its own spoken language and system of writing,” but does not specify what is meant by “use,” nor does it indicate if this right is extended to those other than the 54 recognized groups (Constitution of Vietnam 1992⁶ Article 5, in Kosonen 2013: 41). This case raises the question of how policies are operationalized and enforced. The example of Vietnam is taken up again in the next section on educational language policy.

There are a number of international treaties and conventions that may be significant in national contexts whether or not they create binding legal obligations. According to Skutnabb-Kangas and Dunbar (2010), if governments ratify treaties or conventions they may be held to them through international enforcement methods, or they may simply lead to politically and morally binding practices over time. Regional international organizations such as the Council of Europe, the Organization of American States and the African Union have promoted such agreements, as have United Nations agencies like UNESCO and ILO. (See Appendix A for examples of international and regional instruments for human, linguistic and cultural rights that may have a bearing on national policies.)

National policies on educational language(s)

With regard to education policy, it is important to know the background in terms of constitutional provisions, but these may or may not be spelled out in education documents. Returning to the case of Vietnam, the Ministry of Education and Training (MoET) has a department of Ethnic Minority Education (EME) which could be expected to promote non-dominant languages, but instead focuses on Vietnamese language “strengthening” and the management of boarding schools that expose non-Kinh learners full-time to the dominant language and culture (Kosonen 2013). According to Article 7 of Vietnam’s Education Law of 2005, Vietnamese is “the official language to be used in schools,” while Article 6 of Government Decree 82/2010/ND-CP states that “ethnic minority languages are taught as a subject” (Kosonen 2013: 48). Following the latter policy, 10 NDLs are taught as subjects a few hours per week through a program that is

⁵ <http://confinder.richmond.edu> (Constitution Finder, University of Richmond VA)

⁶ <http://confinder.richmond.edu> (Constitution Finder, University of Richmond VA)

mistakenly known as “bilingual education” (Vu 2008). Meanwhile, in an exception to the policy due to its pilot status, an L1-based MLE pilot project using three NDLs (J’rai, Khmer and Hmong) has been run since 2006 by the curriculum department at MoET with UNICEF support (MoET 2012). It is difficult to see how the current pilot MLE approach could ever be implemented more widely, since it goes against current policy by using each NDL as a medium of instruction and teaching Vietnamese as an additional language (Lx).

In neighboring Cambodia, the 1993 Constitution establishes Khmer (representing 90 percent of the population) as the official language and further identifies its writing system as the official orthography of the country (Constitution of Cambodia 1993⁷ in Kosonen 2013: 42). Until recently there was little mention of the 21 languages spoken by the remaining 10 percent, but favorable results from a range of educational projects using NDLs caused the Ministry of Education, Youth and Sports (MoEYS) to pass the Education Policy of 2007, which gives regional education authorities the right to choose appropriate languages of instruction for Indigenous learners (Kosonen 2013: 44). In particular, a community schools model of L1-based MLE developed and piloted by CARE International in collaboration with MoEYS, UNICEF and a linguistic NGO in the province of Ratanakiri provided the basis for a set of guidelines signed by the Minister of Education in 2010 for implementation of “bilingual education” in Ratanakiri and four other highland provinces (MoEYS 2010). In July 2015, MoEYS went further by finalizing the Multilingual Education National Action Plan 2015-2018, which states that “all ethnolinguistic minority children” have the right to use their mother tongue (L1) in the “initial stages of education,” and which provides a roadmap for implementation of MLE in the five designated provinces (Wong & Benson 2015). In the case of Cambodia, educational policy has done what the Constitution has not done in terms of operationalizing and enforcing change, yet questions remain; for example, it is not clear if speakers of non-Indigenous languages or NDLs outside the highland provinces are included.

Linguistic and sociolinguistic information

When planning for education or other social services, information is needed about which language(s) are spoken, read and written, and how well, in a given region, district or community school “catchment” area, and further, what people’s attitudes and practices are concerning these languages. The Ethnologue (Lewis et al 2016) often provides relatively detailed information about which languages are spoken predominantly in which regions. In homogeneous rural areas the L1 question tends to be quite easily answered. This does not mean that questions should not be asked, for example on a national census or demographic survey, but care is needed to select appropriate questions and train those who will ask them. In the case of linguistically heterogeneous regions, the question of which language(s) would meet the educational needs of learners is more acute. Specialists warn that even if data on languages are collected, questions should be developed that distinguish language from ethnicity, language ability from language use, and oracy from literacy; further, they warn that census samples may not reach non-dominant groups, and governments may inflate ability in dominant languages for political reasons (Baker & Prys Jones 1998: 347). More accurate information might be available through university sociologists, anthropologists and/or linguists, especially those whose studies define regional language varieties and differentiate them from neighboring varieties.

⁷ <http://confinder.richmond.edu> (Constitution Finder, University of Richmond VA)

Others who might have access to relevant information are the Ministry of Culture, NGOs working in communities, and local radio broadcasters. Local, state and regional radio broadcasting in Nigeria, for example, uses an estimated 119 languages, which has reportedly contributed to language standardization, generating agreement about terms, pronunciation and structures (Garba 2015: 49).

It is also essential to research the orthography, or set of conventions for writing any language to be used in education. A surprising number of non-dominant languages already have writing systems, whether ancient or more recent. For those that do not, guidelines are available;⁸ see for example Easton's (2003) description of community participatory methods for developing and agreeing on an effective system. In situations where there are two or more conventions, choosing one over others may inadvertently raise ethical, political, religious or other objections, so adequate needs assessment and consensus-building workshops are advised. Inaction is not advised, as people need to practice writing their languages to be able to come to agreement. One creative approach to reaching consensus was taken by the literacy NGO Ledikasyon pu Travayer (Education for Workers) in Mauritius, recipient of a UNESCO International Literacy Prize in 2004. Over a period of about 25 years, this NGO published a range of literature in Mauritian Kreol for children, youth and adults in any of the three writing systems used by authors, and gradually people began to agree on a harmonized system (Ah-Vee, 2001).

In the case of Mozambique, linguists at NELIMO, the Center for Linguistic Study at the National University in Maputo, have worked since the 1990s to harmonize the orthography of all Mozambican languages, as well as to maintain standards of writing and to support materials development and teacher training. The third and most recent update is the result of a seminar involving 200 linguists, bilingual teachers, authors and representatives of mass media (NELIMO 2008).

Please note that the nation-state is not necessarily an appropriate unit of measure of speaker communities or of orthographies, since linguistic regions often span political boundaries. When Mozambique began experimentation in bilingual education in the 1990s, the two languages chosen for the program were Changana, known as Tsonga and already used in schools in South Africa, and ciNyanja, already used in schools in Malawi and known as Chichewa (Benson 2000); however, educational materials had to be adapted because the spelling conventions were influenced by the different dominant languages (Portuguese in Mozambique and English in the neighboring countries). Influence of the dominant language may go even further, as in the case of Cambodia, where each new non-dominant language orthography must be submitted to the Ministry of Education for approval, and must be based on the Khmer writing system (Kosonen 2013) whether or not the phonemes are accurately represented.

School- and community-based information

As mentioned above, in linguistically homogeneous areas, it is relatively straightforward to determine which language will meet the needs of learners, but it is worth examining the context to determine the extent to which other languages, including the dominant language, are spoken or present in the home

⁸ Resources and software for linguistic fonts are available at <http://www.sil.org/literacy-and-education/resources-developing-orthographies>

environment. Where two or more non-dominant languages are spoken, it is essential to determine who speaks which language(s) and how well, particularly among young children entering school. Specific linguistic data that is directly relevant to education planning can be collected at the community or school level through self-reports by families enrolling their children. Another option is for teachers to interview each family to determine who speaks which language(s) to the child, and if family members engage in literacy practices, in which language(s).

The presence of multiple languages in one school catchment area should not be grounds for ignoring the language of instruction issue; rather, creative solutions should be sought such as organizing classrooms by language rather than by age or grade level (Kosonen 2006), grouping learners for L1 reading lessons while teaching other subjects bi- or multilingually, or using community members as classroom aides. The linguistic proximity between these languages is also a factor, as it may be possible for teachers to use one “standard” but make oral adaptations to include all learners.

Language mapping is a strategy that can be used to determine the languages spoken in a given area or even throughout a school system. One example is the Primary Classroom Language Mapping project implemented in Lao Cai province of Vietnam by the provincial and national Ministry of Education and Training, UNICEF and SIL International (UNICEF 2012). Information was collected from primary students and teachers about their language proficiency and academic performance, which was then used to identify homogeneous school sites where L1-based MLE could be implemented, teachers who could teach bilingually, and schools where the needs were particularly great. The partners plan to conduct similar mapping projects in other provinces to support effective language planning and policy implementation.

Teacher language proficiency is key to implementing L1-based MLE. Qualified teachers from the same linguistic communities as learners are well positioned to teach initial and continuing literacy as well as other academic content through the L1, though they may need training in L1 orthographic conventions and bilingual teaching methods (Benson 2004). In contexts where qualified teachers with proficiency in learners’ L1s are not available, the two choices are (1) training existing teachers in the learners’ L1s, or (2) training youth or adult L1 speakers to be teachers. Both choices will be rendered unnecessary after the first cohort of bi- or multilingual learners graduate and go on to be teachers, but in the meantime, information is needed on the linguistic proficiency of all teachers, both orally and in writing. This information could be collected at the school, district, regional or provincial levels, and it would ideally become part of teachers’ job profiles so that school placement can be done with their languages in mind.

Capturing language-in-education data cross-nationally

There have been attempts over the years to document educational language policies and practices, most notably at the initiative of UNESCO, and most often focused on multilingual African countries (Garabaghi 1983; Gadelii 1999; Ouane 1995), with some crossing regions (e.g. UNESCO 2008). Often, the methodology has consisted of sending out surveys to key informants in education ministries and/or international agencies working in education to generate comparable information that can be put into databases. Unfortunately, these databases tend to become outdated fairly quickly, as policies change with

government administrations and projects end, and the data are not always comparable because they depend on how well informed survey respondents are.

One recent attempt to gather and analyze cross-national data on languages in education is Albaugh's (2012) database of 49 African countries, which draws on academic sources and follows changes in language of instruction over time. Each country has been coded at Independence/1960, in 1990, in 2004 and in 2010 for the extent to which "local" (non-dominant) languages are used in primary education: as "experimental" (through government-authorized pilots), "expanded" (wider experimentation) or "generalized" (Albaugh 2012:2). Based on the compiled data, she graphs the average levels of NDL use in education between 1960 and 2010, which show a slight downward trend in NDL use by countries with English as a dominant language and a significant upward trend in NDL use by countries with French as a DL. This trend is also evident in India (Mohanty 2010) and the Asia/Pacific region (Rapatahana & Bunce 2012), and is cause for great concern. More could be done with Albaugh's (2012) data and methodology, including an analysis of countries with other DLs like Portuguese, of commonalities between countries that have generalized NDL use in education, and of commonalities between countries with upward vs. downward trends. However, this operationalization of the extent to which NDLs are used in education, and Albaugh's mapping of trends over time, could serve as a model for collection of language-in-education data internationally.

Evaluating progress in addressing educational language issues

The preceding section discussed sources of information that would be useful in documenting educational language issues and planning for change. In this section I look at more specific considerations for implementing such change in terms of adapting the language(s) of the school to the language(s) of learners. In Table 2 is a set of questions that can and should be asked of any program regarding how language issues are addressed in terms of the approach/methodology, teacher languages and skills, learner assessment and program management and evaluation. For each category, a focus is identified, a question is asked, and an aim (or expected answer) is specified. This table is intended to serve as a protocol for evaluation, guiding the implementation of theoretically sound approaches to L1-based MLE given the current state of the field, whose concepts have been discussed above.

Table 2: Questions for evaluating progress in educational language issues

A. Approach/methodology		
Focus:	Question:	Aim:
L1 for initial literacy	Is the learner's L1 used for teaching initial literacy in all four language skills (understanding, speaking, reading, writing)?	Yes (including readiness activities, story reading and writing)
L1 continuing development	Is the learner's L1 used for continuing development of all four language skills, grammar and genres?	Yes
L1 literacy duration	<ul style="list-style-type: none"> If so, for how many years of schooling? 	5-7 years (at least entire primary cycle)
L1 as language of instruction	Is the learner's L1 used as language of instruction for academic content (math, social studies, science etc.)?	Yes
L1 as LOI duration	<ul style="list-style-type: none"> If so, for how many years of schooling? 	5-7 years (at least entire primary cycle)
L1-based bilingual instruction	<ul style="list-style-type: none"> If so, on its own or in combination with Lx using bilingual methodology? 	Bilingual in upper primary (if Lx is needed for continuing education)
Lx language learning	Is there explicit teaching of one or more new languages?	Yes
Lx linguistic proximity to L1	If so, which? Questions for each: <ul style="list-style-type: none"> What is the linguistic proximity of the Lx to the L1? 	Proximity (determines explicit contrastive methods for promoting transfer)
Lx writing system relationship to L1	<ul style="list-style-type: none"> What is the relationship of the writing system of the Lx to that of the L1? 	Relationship (determines explicit contrastive methods for promoting transfer)
Lx oral proficiency aim	<ul style="list-style-type: none"> What is the aspired level of students' oral Lx proficiency by the end of primary schooling? 	Realistic level (depends on need for Lx in continuing education or work, also teacher proficiency)
Lx written literacy aim	<ul style="list-style-type: none"> What is the aspired level of students' written Lx literacy by the end of primary schooling? 	Realistic level (depends on need for Lx in continuing education or work, also teacher proficiency)
B. Teacher languages, skills and training		
Focus:	Question:	Aim:
L1 oral proficiency	Do teachers have appropriate levels of oral proficiency in the L1 of their students?	Yes (ideally they have high-level proficiency, shared with students)
L1 written literacy	Do teachers have appropriate levels of written literacy in the L1 of their students?	Yes (they may need training in L1 writing conventions for ed.)
L1 vocabulary	Have teachers been adequately trained in pedagogical and content-specific vocabulary in the L1?	Yes (ideally through preservice, inservice, follow-up)

L1-based content teaching methods	Have teachers been adequately trained in methods for teaching through the L1 across the curriculum?	Yes (ideally through preservice, inservice, follow-up)
L1-based cultural literacy	Are teachers deeply familiar with the cultural traditions associated with speakers of the L1?	Yes (ideally they share these traditions with students)
Lx oral proficiency	Do teachers have appropriate levels of oral proficiency in the Lx to teach it as a language?	Yes (intermediate levels often acceptable)
Lx written literacy	Do teachers have appropriate levels of written literacy in the Lx to teach it as a language?	Yes (intermediate levels often acceptable)
Lx teaching methods	Have teachers been adequately trained in appropriate L2/foreign language methods for teaching the Lx?	Yes (ideally through preservice, inservice, follow-up)
Bi-/multiliteracy methods	Have teachers been adequately trained in promoting transfer of literacy skills between the L1 and the Lx?	Yes (ideally through preservice, inservice, follow-up)
L1-based literacy teaching methods	Have teachers been adequately trained in methods for teaching L1 literacy?	Yes (ideally through preservice, inservice, follow-up)
C. Learner assessment		
Focus:	Question:	Aim:
Initial assessment	Are the language(s) of incoming learners assessed?	Yes
Initial language assessment	<ul style="list-style-type: none"> If so, how? 	Family surveys, language mapping, oral tests
Placement by L1	<ul style="list-style-type: none"> Does the assessment method allow individual learners to be appropriately placed to maximize their L1 skills? 	Yes (note that multigrade classes may be organized by language)
Diagnosis of Lx needs	<ul style="list-style-type: none"> Does the assessment method determine individual learners' levels of oral proficiency in Lx? 	Yes (note that multilingual instruction should build on learners' skills)
Assessment of initial literacy in L1	Is L1 literacy individually assessed, including decoding plus all four language skills?	Yes (ideally through grade 2)
Assessment of L1 development	Is continuing L1 development individually assessed, including all four language skills, grammar and genres?	Yes (at least through end of primary)
Assessment of Lx learning	Is the Lx assessed at the appropriate level (oral, then written based on transfer) at each stage of learning?	
L1 assessment of content learning	Is academic content taught mostly or mainly through the L1 assessed in the L1?	Yes (with focus on content, not language correctness)
Bilingual assessment of content learning	Is academic content taught bi-/multilingually assessed in both/all languages?	Yes (with focus on content, not language correctness)
National/standard assessment of languages	Do national/standard assessments cover both/all languages of the curriculum including L1 as well as Lx?	Yes (all languages in the curriculum should be recognized and assessed)

National assessment of academic content	Are national/standard assessments of academic content given in the L1 or bi/ multilingually to account for the LOI?	Yes (with focus on content, not on language of response)
National assessment focus	Do national assessments of academic content focus on the content rather than on grammar or spelling?	Yes (with focus on content, not language correctness)
D. Program management, monitoring and evaluation		
Focus:	Question:	Aim:
Teacher placement	Are teachers placed appropriately based on their linguistic proficiency, cultural and methodological knowledge, and individual motivation?	Yes (linguistic and cultural background is an important consideration in placement)
Language specialization	Are teachers with the highest available proficiency in the Lx encouraged to specialize in Lx teaching across the grades?	Yes (in cases where Lx proficiency is rare)
Supervision	Are head teachers/school directors/resource teachers/local inspectors offered adequate preservice and/or inservice training in implementing L1-based MLE?	Yes (ideally staff will also share learners' L1 and cultural traditions, as well as be trained to implement)
Regular assessment and record-keeping	Are learners individually assessed at their schools in all subjects every year, with records kept?	Yes (ideally)
Experimental/pilot comparison	Are MLE and non-MLE learner results compared? If so: <ul style="list-style-type: none"> Are all learners speakers of the same L1, with comparable conditions and characteristics including age? 	Yes (care should be taken in comparison, due to multiplicity of confounding factors)
Experimental/pilot control	<ul style="list-style-type: none"> Are all learners followed to be certain that they have consistently attended MLE or non-MLE programs? 	Yes
Experimental/pilot monitoring	<ul style="list-style-type: none"> Are MLE and non-MLE learners each assessed in appropriate languages considering the LOI at each level? 	Yes (assessment language should match language of instruction)

While these questions in this table are designed to guide the planning and implementation of quality L1-based programs, each of them could be used to gather data that would reveal the extent to which speakers of non-dominant languages have access to educational services that meet their needs. These are the puzzle pieces that should be put together to address the wider indicators discussed in the next and final section.

Possible global indicators and next steps in addressing language issues

Having explored a range of sources of information about language issues in education, and having asked a specific set of questions to evaluate progress in addressing these issues through adapting school language(s) to those of learners, I conclude with some possible global indicators for monitoring progress, along with areas in which we need more research and development. It should be noted that at the time of this writing there is no mention of language in the proposed SDG indicators, despite their call for data to be disaggregated by income, sex, age, race, ethnicity, migratory status, disability, geographic location and other characteristics (United Nations 2016). While some of these certainly co-occur with language, it cannot be said that language issues are being considered as seriously or explicitly as needed.

Going back to the original aim of Target 4.5 of the SDGs, to ensure equal access to all levels of education for the vulnerable, the argument here is that the language(s) of instruction must allow learners access to initial and continuing literacy as well as other content of the school curriculum. Closing the gap between home and school languages means that instruction can draw on learners' prior experience and resources to construct new knowledge. It should also mean that teachers, assuming they are appropriately placed, can use languages in which they themselves are proficient to provide relevant instruction to learners. The remaining question is how these dimensions of equity can be measured and monitored on an international or cross-national basis, and this calls for the development of some key indicators.

To begin with, the presence or absence of learners' L1s in a certain school system should be assessed. Presuming that the school system falls under national responsibility, at least one indicator should be set at the country level. One indicator that has been proposed is the percentage of "learners for whom the main language of literacy and learning is the mother tongue." However, to call attention to the most marginalized, an appropriate indicator would target speakers of non-dominant languages who are of school age, and the goal would be to reach as large a proportion of them as possible with education in their own languages. A possible indicator with these functions would be the following:

- a. Proportion of school-aged speakers of non-dominant languages with access to education in their own languages.

While it could be easiest to collect these data at the school level, as in the Lao Cai language mapping project mentioned above, this would compromise the reach of the indicator, since lack of services in appropriate languages may well be a reason there are dropouts and out-of-school youth. Use of indicator (a) will require reliable linguistic and demographic data cross-referenced with the availability of L1-based education. Such cross-referencing would highlight any gaps between home and school languages, and could be used to explain other data generated by the education system such as regional differences in achievement on national examinations.

The type of L1-based education is the next issue that needs to be captured, since a quality program will use the L1 for beginning and continuing literacy and academic content learning, while teaching one or more additional languages (Lx) explicitly, using a systematic MLE model that promotes cross-linguistic transfer.

Indicator (a) calling for “education in their own languages” may not be specific enough to ensure that L1-based literacy and learning is being offered. Further, the types of MLE being offered to different NDL speaker communities in a country could vary, so the next indicator might need to be group-specific at the intra-national level, as well as being explicit about the approach.

- b. Proportion of school-aged speakers of each NDL in the country with access to:
 - Initial literacy instruction in the L1 (preschool and lower primary)
 - Continuing literacy instruction in the L1 (upper primary)
 - L1-medium instruction across the curriculum for 3/4/5/6 years
 - Explicit teaching of the Lx as a second/foreign language

Following from the data cross-referenced in indicator (a), indicator (b) calls for more detailed information about L1 use in the classroom. This is useful in itself, since more theoretically sound approaches to L1-based MLE are called for. In addition, the comparison/contrast between NDL communities in terms of access to L1-based services could call attention to differential treatment, as well as demonstrate the benefits of high-quality MLE. For example, Heugh et al (2012) used regional data from Ethiopia on number of years of L1-based instruction (which varied between 3 and 8 years) to demonstrate that longer-term use of the L1 resulted in better national examination results. The same study revealed that using the L1 as medium of instruction for only 3 years before switching to the dominant language (English in that case) did *not* result in improved English scores, which is consistent with the international literature.

There are remaining questions concerning how indicators such as (a) and (b) can capture intra-national characteristics in enough detail to be helpful. For example, if information is accessible mainly through the schools, what happens to out-of-school youth, particularly those from non-dominant groups? Where linguistic diversity necessitates decentralized decision-making, and where educational initiatives may not be centrally documented, school-level data might suffice for the regional education authority:

(c) Percentage of schools where learner L1, teacher L1 and language of instruction are the same language.

It could be argued, then, that data collected at the local, regional and national levels are all useful for the monitoring of language issues in education. Calling for the monitoring of languages spoken by learners, learners’ families, teachers and other educators will not only raise awareness of the mismatches but also potentially involve all stakeholders in processes of addressing learners’ linguistic needs more appropriately. Years of dominant language-only policies in the schools have *not* resulted in effective learning for the marginalized, and in many countries only the elite have benefitted. Asking questions from Table 2 above to target key themes—approach to multilingual instruction, teacher languages and skills, learner assessment and program management—will go a long way toward informing more adequate educational services. Meanwhile, expanded research is needed on overlapping forms of marginalization, especially on how language overlaps with other factors like poverty, gender, ethnicity and geographic location. I hope that as we develop better indicators of educational *inclusion* through L1-based programs, it will become easier for education systems to reach the most marginalized with high-quality instruction that helps people improve their lives.

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Appendix A:

Examples of international and regional instruments for human, linguistic and cultural rights

The following is a partial list of international and regional instruments that emphasize the principles of multilingualism within and across national borders, the need to empower people's own languages and cultures, and the right of all people to their own languages and cultures.

Year	Instrument and article/section	Source
1945	UNESCO Constitution, Article 1 http://portal.unesco.org/en/ev.php-URL_ID=15244&URL_DO=DO_TOPIC&URL_SECTION=201.html	UNESCO
1948	Universal Declaration of Human Rights, Article 2 http://www.un.org/en/universal-declaration-human-rights/	UN
1948	American Declaration of the Rights and Duties of Man https://www.cidh.oas.org/Basicos/English/Basic2.American%20Declaration.htm	OAS
1960	Convention Against Discrimination in Education, Articles 1, 2, 5.1 http://portal.unesco.org/en/ev.php-URL_ID=12949&URL_DO=DO_TOPIC&URL_SECTION=201.html Protocol for settling disputes: http://portal.unesco.org/en/ev.php-URL_ID=15321&URL_DO=DO_TOPIC&URL_SECTION=201.html	UNESCO
1966	International Covenant on Civil and Political Rights, Articles 2.1, 14.3, 19.2, 19.3, 24.1, 26, 27 http://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx Status of ratification: http://indicators.ohchr.org	UN
1966	International Covenant on Economic, Social and Cultural Rights, Articles 13, 14 http://www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx Status of ratification: http://indicators.ohchr.org	UN
1976	Recommendation on the Development of Adult Education, Article 22 http://portal.unesco.org/en/ev.php-URL_ID=13096&URL_DO=DO_TOPIC&URL_SECTION=201.html	UNESCO
1978	Declaration on Race and Racial Prejudice, Article 9 http://portal.unesco.org/en/ev.php-URL_ID=13161&URL_DO=DO_TOPIC&URL_SECTION=201.html	UNESCO
1986	Language Plan of Action for Africa http://www.bisharat.net/Documents/OAU-LPA-86.htm	OAU
1986	African Charter on Human and Peoples' Rights http://www.unesco.org/most/lnlaw26.htm	OAU

Appendix A (continued)

1989	ILO Convention No. 169 on Indigenous and Tribal Peoples http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C169 Ratifications by country: http://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312314	ILO
1990	Convention on the Rights of the Child, Articles 17, 29, 30, 40 http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx Status of ratification: http://indicators.ohchr.org	UN
1990	International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families, Article 45 http://www2.ohchr.org/english/bodies/cmw/cmw.htm	UN
1992	Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities, Articles 3, 4 http://www.ohchr.org/Documents/Issues/Minorities/Booklet_Minorities_English.pdf	UN
1992	Oslo Recommendations Regarding the Linguistic Rights of National Minorities http://www.unesco.org/most/lnlaw28.htm	OSCE
1995	Framework Convention for the Protection of Minorities http://www.coe.int/en/web/minorities/home Country-specific monitoring: http://www.coe.int/en/web/minorities/country-specific-monitoring	COE
1995	Beijing Declaration and Platform for Action, Articles 80, 147, 233, 242 http://www.unesco.org/most/lnlaw34.htm	UN
1995	Declaration and Integrated Framework of Action on Education for Peace, Human Rights and Democracy, Articles 19, 29 http://www.gcedclearinghouse.org/resources/document/declaration-and-integrated-framework-action-education-peace-human-rights-and-3	UNESCO
1996	Draft Inter-American Declaration on the Rights of Indigenous Peoples http://www.nativeweb.org/papers/statements/environment/oas.php	OAS
1996	Universal Declaration of Linguistic Rights http://www.unesco.org/cpp/uk/declarations/linguistic.pdf	UNESCO
1996	Draft Charter for the Promotion of African Languages http://www.bisharat.net/Documents/Accra96Charter.htm	OAU
1997	Harare Declaration https://www0.sun.ac.za/taalsentrum/assets/files/Harare%20Declaration.pdf	OAU
1998	European Charter for Regional or Minority Languages http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/148 Chart of signatures and ratifications http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/148/signatures?p_auth=OV920eyI	COE

Appendix A (continued)

2000	Asmara Declaration on African Languages and Literatures https://www0.sun.ac.za/taalsentrum/assets/files/Asmara%20Declaration.pdf	AU
2001	UNESCO Universal Declaration on Cultural Diversity, Articles 5, 6 http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html	UNESCO
2007	Draft Declaration on the Rights of Indigenous Peoples, Articles 14, 15, 17 http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf Expert mechanism: http://www.ohchr.org/EN/Issues/IPeoples/EMRIP/Pages/EMRIPIndex.aspx	UN
2013	Resolution on Human Rights, Sexual Orientation, and Gender Identity and Expression http://www.oas.org/en/sla/dil/docs/AG-RES_2807_XLIII-O-13.pdf	OAS

Adapted from Djité (2008), Skutnabb-Kangas & Dunbar (2010)