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Planning for Language Use in Education: Best Practices and Practical Steps to Improve Learning Outcomes

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Planning for Language Use in Education: Best Practices and Practical Steps to Improve Learning Outcomes

Prepared for
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Abbreviations

ADEA	Association for Development of Education in Africa
CAL	Center for Applied Linguistics
CEFR	Common European Framework Reference for Languages
DFID	British Department for International Development
EGAT/ED	USAID Bureau of Economic Growth Agriculture and Trade, Office of Education
EGRA	Early Grade Reading Assessment
EQUIP2	Education Quality Improvement Program
KEP	Kom language program (Cambodia)
L1, L2	first and second language
LOI	language of instruction
LOLT	language of learning and teaching
LWC	language of wider communication
M&E	monitoring and evaluation
MLE	multilingual education
MOI	medium of instruction
MTB-MLE	mother tongue-based multilingual education
MTPDS	Malawi Teacher Professional Development Support (program)
NGO	nongovernmental organization
PIRLS	Progress in International Reading Literacy Study
PRIMR	Primary Math and Reading Initiative (Kenya)
READ TA	Reading for Ethiopia's Achievement Developed, Technical Assistance (project)
RTI	RTI International (registered trademark and trade name of Research Triangle Institute)
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
TIMSS	Trends in International Mathematics and Science Study
UIL	UNESCO Institute for Lifelong Learning
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development

Introduction

The concept of Education for All, as operationalized by the Millennium Development Goals, drives current efforts in educational development. The assumption underlying the expansion of formal basic education to all children is that this education will improve their opportunities to have healthy, productive lives. Further, it is generally agreed that schools should provide equitable access to educational services regardless of a learner's gender, ethnicity, language, religion, or other characteristics. However, the reality is that even if children get to school, the types of teaching and learning they are offered seldom meet their diverse needs.

In this context, countries around the world have paid increasing attention to the quality of teaching and learning in schools, using assessment tools to measure key skills such as literacy and numeracy. As assessment results have highlighted the failure of school systems to provide effective learning, stakeholders' attention has rightly turned toward the issue of language of instruction.

This document was designed as a practical response to requests from USAID's Africa Missions, which have increasingly indicated their need for more guidance on the role of language of instruction (LOI) in their efforts to achieve Goal 1 of the 2011 USAID education strategy: Improved reading skills for 100 million children in primary grades (USAID, 2011). This need reflects a call by USAID in the Technical Notes of its 2011 *USAID Education Strategy* (the Bureau of Economic Growth Agriculture and Trade, Office of Education [EGAT/ED]), which identified LOI among the seven areas in which Missions were likely to need technical assistance or additional resources for designing or implementing early grade reading programs:

> Language of Instruction: As reading is a process of learning to match sounds to symbols (letters), it is much easier for students to learn to read in a language they speak and understand. A strong foundation in a first language, especially during the early years of school, is crucial to educational success. In countries where appropriate language policies exist, USAID projects should be designed in accordance with these policies. Where appropriate policies do not exist, USAID should engage in policy dialogue with host country governments and partners in an attempt to improve policy, as on other technical issues. (USAID, 2012b, p. 4)

A key factor in USAID's—and others'—increased focus on language of instruction has been the results of recent reading assessments, including the Early Grade Reading Assessment (EGRA) administered in sub-Saharan African countries, as well as international assessments, such as those administered by the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ). These assessments have consistently found that children in the early grades do not demonstrate proficiency in basic reading skills, even when they are assessed in a familiar local language. These assessments have prompted reflection on policies and practice around LOI as they relate to learners' ability to acquire literacy skills in a first and subsequent languages, and thereby to access curricular content as well.

Although various organizations and authors have produced resources on the topic of language of instruction in Africa (and other lower-resourced environments) in the past several years (see, for example, Ball, 2011; Ouane & Glanz, 2010, 2011; Pinnock, 2011), none has comprehensively

addressed the specific programming and informational needs of USAID's education officers and their partners, particularly as they relate to USAID's goal of improving early grade reading outcomes, at both the system level and to the level of detail that is increasingly being needed by USAID and others working to improve early grade reading and learning outcomes.

As such, this document is intended to serve as a summary of key research findings and best practices relevant to USAID's and other stakeholders' programming efforts with respect to language use in education, and as a resource for putting the evidence and lessons learned into practice. The guidance is based on information assembled from a review of findings on language use in education, particularly with respect to using familiar languages to provide instruction. This review included academic research on language-of-instruction policies and practices, language acquisition, and reading development, as well as documentation regarding country-level and project-specific experiences and evaluations of efforts to provide instruction in L1, or other languages familiar to children, and L2/Lx. Citations and resources included in this guide are those that have been identified as the most relevant to USAID's work in early grade reading improvement, and in particular to the contexts in which its support is currently being provided, primarily multilingual sub-Saharan African countries. The document also draws on USAID's current efforts to provide reading instruction in familiar languages, including in Kenya, Malawi, Nigeria, Rwanda and Uganda, among others.

The guide is organized into the following sections:

- **Section 1: Rationale for more effective language planning in education** presents an overview of the advantages and benefits—at the learner, education system, and community levels—associated with appropriate use of language for education provision. It includes a particular focus on the advantages of L1-based instruction, drawing on evidence and experience gathered internationally as well as from the sub-Saharan African context. The section also notes common concerns raised with regard to L1-based instruction and responses to these concerns.
- **Section 2: Key factors to consider when planning for language use in education** summarizes important issues related to L1 and L2/Lx instruction as they relate to language-use planning. These are broken down into the following five areas: (i) research on language, literacy, and learning; (ii) goals of the education system; (iii) the sociolinguistic context; (iv) the educational context; and (v) stakeholder considerations. This section includes an overview of L1 learning and development, how children acquire L2/Lx language skills, and issues related to language transfer and LOI transition.
- **Section 3: Recommendations and steps for planning for effective language use in education** describes actions USAID and stakeholders can undertake. Accompanying annexes provide planning tools and specific details on short-, medium- and long-term activities that should be carried out.

Throughout the document, readers will find questions related to the research and information presented that can be used to guide their language planning process.

The authors, contributors, and reviewers to the guide included academics with expertise on language development, bilingual education, and reading instruction, as well as individuals who have contributed to the development, implementation, and/or monitoring and evaluation of L1-based education and reading programs, particularly those in sub-Saharan Africa. It is the authors' hope that this guidance will further assist USAID in achieving its goal of improved reading outcomes for 100 million children, as well help countries effectively plan for language use in education in order to improve learning outcomes across the curriculum.

Concepts and definitions

This section summarizes key terms and concepts used throughout the guide. Additional information is provided in context within the text of the document.

Language planning is a process designed to influence the function, structure, or acquisition of languages in the society and, by extension, to the education system. Language plans determine which languages are chosen to be taught in schools, and what role language plays in teacher recruitment and training, among other issues. In complex language environments, as described above, decentralized determination of LOI may be necessary.

An individual's **first language (L1)** is the one he or she speaks best, often referred to as a *mother tongue* or *home language*. People living in multilingual contexts may have more than one L1, and they may have a greater proficiency in one language or another for difference purposes and at different points in their lives.

A **second language (L2)** or (Lx to denote a language in addition to the second language) is a language that someone learns in addition to his or her first language. An L2 may be learned formally (at school) or informally (such as through working in a market).

A **lingua franca** or a **language of wider communication (LWC)** is a language used as a common means of communication in a given area. For some speakers, this language will be their L1, while for other speakers it will be an additional language (e.g., Wolof in Senegal, Amharic in Ethiopia, or Kiswahili in Kenya) to which speakers may have varying levels of proficiency depending on how frequently and for what purpose it is used in their environment.

A **foreign language** is a language that is not spoken in a person's immediate environment, and to which they would not have exposure through familiar media. Former colonial languages in many African countries (English, French and Portuguese) are often foreign languages to a large proportion of the population, particularly those in rural areas.

Language of instruction (LOI) refers to the language used to teach the curriculum. Teachers may use more than one LOI intentionally throughout the day as part of a bilingual or multilingual program. This term is used interchangeably in most literature with *medium of instruction (MOI)*; the term LOI is used in this report for consistency.

Mother tongue-based multilingual education (MTB-MLE) is a systematic approach to learning that emphasizes the use of learners' L1 to teach literacy, curricular subjects, and other languages. Additional languages (L2 or Lx) are gradually integrated into teaching and learning through a planned and careful approach. MTB-MLE emphasizes the use of the L1 as both a medium and a subject of instruction in order to build a strong cognitive foundation that will support the learning and use of additional languages.

Orthography is the rules of the representation of the sounds of a language through written symbols, or the rules of the writing system. An alphabet is an example of an orthography. *Transparent*, or shallow, orthographies are writing systems where sound-symbol correspondence is consistent; for example, the character "b" always represents the same sound in the language.

Most African languages are written in transparent orthographies, while English, French, and Portuguese have less transparent orthographies. In orthographies that are opaque, or deep, one sound may be represented by more than one letter, or one letter may have more than one sound (or both). If good instruction is provided, reading acquisition tends to take less time for orthographies that are transparent.

Transfer—specifically, *interlinguistic transfer*—is the cognitive process of applying literacy and other skills from one language into another. Such skills include visual awareness, phonemic awareness, and automaticity (Bialystok, 2006; Geva, 2006). Transfer is multi-directional, but the most efficient direction is from the L1 to an additional language (Bialystok, 1991, 2011).

1 Rationale for more effective language planning in education

1.1 Context and benefits

There is growing awareness of the critical role that languages play in facilitating—or hindering—children's access to schooling, as well as their ability to learn when they are in the classroom. The use of official, often exogenous (foreign) languages as languages of instruction has long privileged a minority of learners, while preventing the vast majority from meaningful interaction with their teachers. Evidence-based, strategic planning regarding the use of students' own languages, and the learning of additional languages, is critical to ensuring that all children are offered the highest possible quality of education, and that they all leave school with the necessary knowledge and skills for contributing to their communities' and their country's well-being and growth.

The benefits of using children's first languages (L1) or familiar languages to provide instruction in the education sector has long been established in terms of its effectiveness in facilitating language acquisition, reading development, and academic learning, as well as its merits in terms of human rights, language and cultural preservation, and, in recent years, feasibility and cost. Other well-established benefits to children, their parents, teachers, and communities when children are able to learn in a familiar language are summarized below (see ***Annex A*** for a more in-depth discussion and references):

- **Increased education access.** Children who understand the language of instruction are more likely to enter school on time, attend school regularly, and drop out less frequently.
- **Improved learning outcomes.** Being able to read and understand the language used in the classroom in turn facilitates the learning of academic content.
- **Facilitation of child-centered learning.** Students can participate better in class, and teachers can engage them more actively, if they share a common, familiar language.
- **Improved gender equity.** L1-based education has been shown to have a positive effect on girls' enrollment, attendance, and school participation.
- **Accurate assessment of student learning.** When students can express themselves in a familiar language, teachers can better monitor and evaluate learning outcomes and identify which students need further assistance.
- **Increased cost-effectiveness.** Providing instruction to children in a language they understand can be more cost effective, due to reductions in repetition, dropouts, and poor learning outcomes resulting from a mismatch between children's language and the LOI.
- **Greater parental and community involvement in education.** L1 use in schools increases parents' ability to interact with school officials, understand what their children are learning, and provide support to pupils.

- **Provides socio-cultural benefits.** Use of L1 and familiar languages in school helps to validate and preserve children's and their communities' language and culture.

Taken as a whole, the outcomes listed above furthermore contribute to institutional strengthening and workforce development, thereby reducing social exclusion and decreasing the likelihood of social unrest and conflict.

These benefits of providing education in languages familiar to children have long been recognized in national, regional, and international education fora, including as far back as the 1961 First Conference of African States on the Development of Education in Addis Ababa (United Nations Economic Commission for Africa, 1961), whose delegates recommended L1-based instruction; and in a series of studies commissioned by the Association for Development of Education in Africa (ADEA) (later published in Ouane and Glanz, 2011). This work contributed to the 2010 adoption by 18 African Ministers of Education of the *Common policy guidelines on the integration of African languages and cultures into education curricula*. Yet more than 50 years since the 1961 Addis Ababa conference, the majority of African students are still expected to start and complete their schooling in an unfamiliar language (Ouane, 2009). Why?

African languages as a means of wider communication

The case for using African languages for instruction is supported by the fact that many are large national and international languages of wider communication used by millions of speakers.

For example, Hausa is estimated to be the L1 of 24 million people, while approximately 15 million use it as an L2/Lx (http://www.ethnologue.com/language/hau). Other languages used for communication by tens of millions of people across multiple countries include Kiswahili, Igbo, Fulfulde, Amharic, and Yoruba. These and many other languages in sub-Saharan Africa are so vital to information, access, and communication that many organizations and businesses are making their content and products available in them. For example, the BBC offers news content in Hausa and Kiswahili, while Microsoft Office is now available in several sub-Saharan African languages (http://products.office.com/en-us/language-packs/microsoft-office-language-options-multilingual-support). Mobile phone providers increasingly offer services and notifications in locally used languages as well.

Giving children an opportunity to gain literacy and other skills in these languages serves to facilitate and support inter-country commerce and communication, as well as to build the status of these languages as international languages of wider communication.

1.2 Putting research into practice

Despite the acknowledgment by many of those responsible for education sector planning and funding that children learn better when they understand the language used for teaching, questions and concerns about how to operationalize L1-based education and to provide effective instruction of—or in—additional languages often lead to stakeholders to question whether L1-based education is feasible or even necessary, especially where demand is high for skills in non-indigenous languages such as English and French. These frequently cited concerns include the following:

- assumptions that the large number of languages in many countries makes instruction in familiar languages too complicated and costly;

- a belief that a foreign language is most effectively taught by providing instruction in it;
- a belief that parents are or will be opposed to instruction in national languages;
- opposition by policy makers and senior education officials;
- an assumption that implementing L1-based education requires producing teaching and learning materials for all grades, in every language in the country, simultaneously; and
- a belief that providing instruction in L1 or other languages with which children are familiar will lead to ethnic conflict.

Yet, as described in ***Table 1*** and throughout this document, each of these challenges—real or perceived—can be effectively addressed with thoughtful planning.

Table 1. Evidence-based responses to frequently cited concerns about L1-based instruction

Concerns and challenges	Responses and approaches
No need for L1-based instruction • Language of instruction not the source of poor education sector outcomes • Children already know their home/mother tongue language, so they should learn an L2 at school • Using L1 will hinder Lx development, and/or the learning process itself • Children learn languages quickly at a young age, so starting instruction in an L2 is better • Parents do not want L1-based instruction • L1 not needed for getting a job; L2/foreign languages preferred	• While numerous problems persist in many low-income countries (including lack of teaching and learning materials and poor-quality teacher training), the language in which teaching and learning takes place is still significant. More resources and better teacher training will not lead to better outcomes if pupils still do not understand the language in which education is provided. • Children learn to read and write, and learn academic content more efficiently, in a familiar language shared by teachers and students. • Proficiency in L1 or a familiar language facilitates learning additional languages. • Children can become highly proficient in L2 if good instruction is provided. • In a context where children are not exposed to an L2 outside of an academic environment, introducing additional languages later, after L1 proficiency is established, can be a more efficient instructional approach to learning the L2 than starting early. • When parents and teachers understand that language instruction does not need to be "either L1 or L2" and that L1-based instruction can actually facilitate L2/Lx development and improve learning outcomes, they tend to favor this approach. • Even in a globalized economy, L1 skills are still vital and facilitate the acquisition of literacy, numeracy, and other skills needed to gain employment.
Language-specific concerns • Some languages may not be sufficiently "developed" for academic learning, especially in subjects like science and mathematics • Lack of literacy materials and/or few or no materials for teaching curricular content	• Languages (both writing systems and terminology) develop over time and with use, so using a language for instruction actually fosters development. Universities, language experts, and linguistic organizations can help communities develop and standardize writing systems for their languages. • A review of existing materials can often identify resources that can be used or modified. Additional literacy and subject materials can be developed over a relatively short amount of time with good planning. • Low-cost desktop publishing resources (such as those being supported by USAID's Enabling Writers initiative, https://www.omnicompete.com/enabling_writers.html), the availability of digital repositories of books (such as the African Storybook Project

Concerns and challenges	Responses and approaches
	(http://www.africanstorybook.org/), and locally made materials (such as letter pocket charts for teaching reading) can help to more easily meet materials needs. Local publishers, nongovernmental organizations (NGOs), and locally trained authors can be tapped for materials development. Teachers and parents, as well as language groups and organizations, can also contribute to materials development.
Linguistic diversity concerns • National unity will be compromised if multiple languages are used for instruction • Using indigenous languages will hinder a country's growth and participation in global economy	• National unity is promoted when education offers equitable opportunities for all. The presence of strong institutions—including education systems—in areas of high ethnolinguistic diversity actually decreases the likelihood of conflict. • A country's growth is hindered when its population remains uneducated and does not acquire the skills needed for a modern economy. Using languages children understand helps them to gain such skills.
Teacher skills, attitudes, and placement • Teachers are not literate in languages their students speak; have little training in teaching L1 as subject or teaching content in L1 • Teachers are unfamiliar with or opposed to instruction in L1 or children's familiar languages because they did not experience it themselves • Teachers lack knowledge regarding bilingual and multilingual education pedagogy	• Education systems can provide teachers with information about the benefits of teaching in familiar languages and taking an L1-based approach to instruction. Teachers' unions and in-service training opportunities present opportunities to share and discuss information. • Education systems can provide at least part of pre- and/or in-service teacher training through the languages in which teachers will be providing instruction. Training opportunities on literacy acquisition, language development, and bilingual methodologies can be provided so that teachers feel prepared to teach in L1-based, multilingual classrooms. • Organizing L2/Lx subject teaching by specialized teachers can help to maximize resources, minimize costs, reduce the burden on teachers to be both language and subject experts, and improve the quality of teaching. • Policies and practices related to teacher recruitment and placement can be reviewed and updated through a consultative process to ensure that teachers are placed in schools where they speak their students' language, while being sensitive to concerns for teacher mobility.
Complexity and cost • Too many languages to provide L1-based instruction to all • Too complicated to provide instruction in multiple languages • Too expensive to provide instruction and materials in multiple languages	• Language mapping can accurately identify the number of languages needed. Often a majority of the population can be reached by a handful of languages. • In urban or other heterogeneous language communities, school-based language mapping and local decision-making can identify which language(s) to use; in some contexts, a language of wider communication in which children are proficient may be feasible to use. • Education systems can phase in use of different languages as orthographies are standardized, materials are developed, teachers are trained, and experience is gained within the sector. • Cost-benefit analyses indicate that initial start-up costs are recovered through higher retention rates and better learning outcomes when pupils learn and stay in school. Most significant recurrent costs in the education sector (e.g., teacher salaries and infrastructure) are not related to LOI. • Cost efficiencies can be realized through systematic planning of materials production; for example, materials developed in one language may be translated or adapted without incurring significant

Concerns and challenges	Responses and approaches
	costs. Resources can be formatted in a way that allows for multiple languages (i.e., teachers' guides with information in multiple languages). • The cost of smaller print runs will decrease if demand for language-specific materials increases from the education sector, parents, and others. Collaboration across regions and countries that share the same languages can further reduce costs over time. • Implementing an effective plan for language use in education can be accomplished. The advantages of taking a long-term approach to planning outweigh the cost of maintaining the status quo.

As many education researchers and practitioners are increasingly noting, failure to provide instruction in languages children understand accounts for high levels of wastage in the education system—failure to learn to read and high repetition and dropout rates—and inefficiencies in many school systems in Africa (as well as in high-income countries). Thoughtful and long-term planning for language use in education, with a focus on providing education in L1 or another familiar language used for communication in the community, can dramatically increase the proportion of children entering school who leave literate, with modest initial increases in the primary education budget that decline over time. To achieve the goal of all children reading—and therefore able to learn well across the curriculum—more and sustained efforts must be focused on planning for effective use of language in education. The following section outlines key factors to consider when doing so.

2 Key factors to consider when planning for language use in education

Developing a coherent, effective plan for appropriate language use in the classroom to provide a quality education includes understanding and planning for the following core issues:

- Identifying goals of language acquisition and selecting languages to be used in classrooms, and for what purpose;
- Identifying effective pedagogical methodologies for teaching languages and curricular materials, and selecting languages to include in instruction;
- Developing teaching, learning, and assessment materials in the appropriate languages;
- Aligning teacher recruitment, training, and placement with the pedagogical approach to using language; and
- Cultivating support from and involving stakeholders—from policy makers to parents—in language plan development and implementation.

To make informed, effective decisions regarding each of these, a number of factors need to be considered. These include research and best practices regarding language development and learning; the goals of the education system; the country's sociolinguistic context, a country's current education context, resources available, and feasibility of implementation; and stakeholder

engagement and other considerations. Each of these factors is discussed in the subsections below, which include lists of questions that stakeholders can use to guide their planning with regard to language use in education. A diagram at the end of ***Section 2.1.1*** provides a graphical summary.

2.1 Research on language, literacy, and learning

2.1.1 Summary of the research

This section summarizes research and best practices regarding language acquisition and literacy development (in both L1 and an additional language). The overview is meant to anchor LOI planning in best practices and current research. The findings come from recent scholarly and practitioner literature.

- **L1 development.** Learning to speak and understand a first language is a natural process that takes place in the child's immediate home environment, and is enhanced when parents, family members, and others engage with children orally through songs, story-telling, and conversation with their children, which builds their knowledge of sounds, vocabulary, and concepts.
- **Learning to read in an L1.** Children learn to read and write, comprehend text, and access academic content more efficiently when instruction is in their L1. This is because they bring to the learning process thousands of vocabulary words and knowledge of the grammar, syntax and sounds of the language(s) they speak at home (Nation, 2006; Nation & Wang, 1999). While the exact amount of time needed for children to become fluent readers in L1 varies depending on the properties of the language[1] (Seymour, Aro, & Erskine, 2003; Van Ginkel, 2008), most children should be able to read in their L1 by the end of grade 2, particularly if the language is written in a transparent orthography (i.e., there is a one-to-one correspondence between letters and sounds).[2] Although children enter school with significant oral L1 skills, development of *academic language* still requires time, and is a process that takes place continuously as children add to their language repertoire and learn new concepts at school.

> *Early formal instruction in an L2 may not be as effective as a later period of intensive formal instruction, when pupils are in the later primary grades and have already developed proficiency in their L1.*

- **Effects of L1 proficiency on L2/Lx acquisition.** Once learners have a foundation in the L1, they can more readily acquire language and literacy skills in a new language. Research has shown that long-term success in acquiring L2 skills is strongly associated with a learner's oral and written proficiency in L1 (Ball, 2011; Center for Applied

[1] These include the depth of the orthography (degree of consistency between symbols and sounds), its size (i.e., the number of symbols), the visual complexity of the orthography, and other features.
[2] Evidence suggests that exposure to a language with a transparent orthography (of which many African languages are), may aid the development of phonological awareness when reading in a language with a deeper orthography (e.g., English) (Abu-Rabia & Siegel, 2002).

Linguistics [CAL], 2006; Cummins, 2009; Goldenberg, 2008; Walter & Chuo, 2012) and on continued use of L1 in the classroom after an L2 has been introduced as the LOI (August & Shanahan, 2006; Cummins, 2009; Thomas & Collier, 1997, 2002). This is because high proficiency and literacy in the L1 promotes cognitive development, which in turn is needed to efficiently learn new languages (Bialystock, 2006; Geva, 2006). Recent research from Kenya further supports these findings. An analysis of data from classroom observations and reading assessment conducted in mother tongues (Gikuyu and Dholuo), Kiswahili, and English with grade 3 children indicated a correlation between learners' L1 reading skills and English outcomes, indicating that poor English-language outcomes may be linked to poor mother-tongue skills acquisition (Piper, Schroeder, & Trudell, 2015).

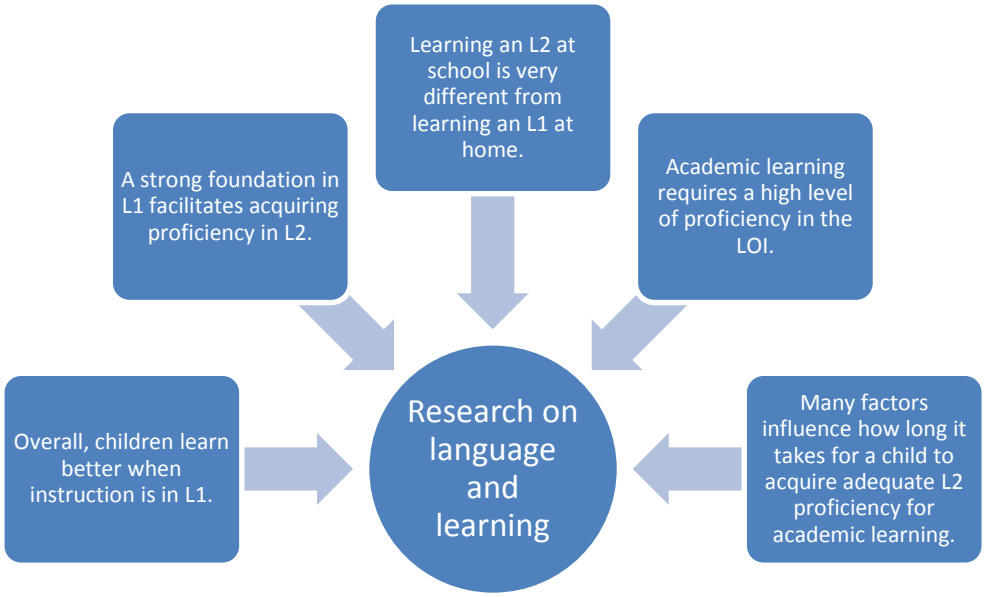
- **Time needed to learn an L2.** The process of learning an L2 at school is different from learning an L1 in a natural context. In an academic context, the time needed to gain proficiency in an additional language depends on a number of factors, including the quality of teaching, the content that is covered, the intensity and thoroughness of instruction, teacher language proficiency, teacher preparation, and how well learning is monitored and evaluated (CAL, 2006). For example, a review of research on L2 learning in North America concluded that even after five to six years of study, English learners were not able to acquire the same oral proficiency skills required for academic learning as their peers who spoke English as an L1 (Geva, 2006). Another important factor to consider is the degree of similarity between the two languages being learned. An L2/Lx with vocabulary, grammatical structure, and/or script similar to the L1 will take less time to teach than one that is significantly different. The text box "Language skills transfer: Key ideas to inform planning" presents additional information on factors to consider. Research also indicates that languages written in transparent orthographies are easier to learn to read than those written in less transparent orthographies (Aro, 2004).

Language skills transfer: Key ideas to inform planning

Languages are taught as subjects to provide opportunities for learners to develop skills in languages that are not the medium of instruction. Younger learners (i.e., under age 10) have advantages in acquiring language skills. They tend to acquire the sound system, to learn intonation, and to make oral links between the L1 and L2 more readily than older learners. They are less anxious and acquire language intuitively, which can be complemented later through formal language study. However, evidence suggests that older children (i.e., older than 10) have significant advantages learning an L2. For example, possibly because of more advanced cognitive skills, pre-teens have been found to learn faster than younger learners (Muñoz, 2008). In general, older learners appear to learn better when the language is formally taught, likely supported by their existing learning strategies and established literacy skills in L1. Therefore, if children's exposure to the L2 is primarily in an academic setting for only a few hours a week, older learners are at an advantage compared to their younger peers (Enever, Moon, & Raman, 2009; Johnstone, 2002; Muñoz, 2008; Nikolov, 2009).

As noted, ***Figure 1*** below summarizes key ideas on language and learning that should be taken into consideration when developing an effective approach to language use in education.

Figure 1. Research on language and learning: Key ideas for effective language planning



2.1.2 Language models and LOI transition

Discussions about language use in education, particularly with regard to sub-Saharan Africa, often become fixated on identifying a "language model" and an exact grade level at which time the LOI should "switch" from L1 to L2. This section addresses these issues by providing information on language models commonly referred to in discussions of LOI in sub-Saharan Africa, as well as issues related to LOI transition.

For reference purposes, ***Annex B*** summarizes language models commonly mentioned in discussions about language planning, particularly in the sub-Saharan African context. These include L1-based instruction, immersion (referred to as "submersion" if no L1 support is provided), early or late exit transitional bilingual education (children receive L1-based language instruction for a short amount of time until they are

What does vocabulary have to do with it?

How do education practitioners know when children have learned an L2/Lx sufficiently well that it can be used (if needed, for at least part of the school day in a bi- or multilingual program) as a medium of instruction? Different countries and organizations have used different ways to determine what a language learner knows. Currently, one of the most commonly used tools is the Common European Framework Reference for Languages (CEFR) (Language Policy Unit, n.d.; Little, Goullier, & Hughes, 2011), described in ***Annex C.*** Designed with multilingualism in mind, the CEFR competencies are linked to the number of words (vocabulary) a child needs to know at each level. This approach is based on research demonstrating that different languages have different vocabulary requirements, and that the threshold for a given level of competency in that language is specific to that language. Of importance to education planners and teachers is that children may need four to five years of formal education to gain a level of vocabulary knowledge in a second or foreign language that would allow them to use that language for learning and to understand the content of their school books and teachers (Nation, 1990; Orosz, 2009).

Although CEFR was developed for Western countries, it is a useful model because it is a framework for multilingual contexts and provides competency-based indicators. A similar framework could also be helpful for assessing language competencies in multilingual African contexts.

transitioned into learning in an Lx), and additive bilingual (curricular program develops and maintains students' primary language while simultaneously adding a second language). ***Table 2*** is a graphical overview of when L1 and Lx are generally used in primary and secondary. First, it is important to note that these models are often modified and implemented differently in different contexts. Second, because these language models have generally been imported from primarily monolingual North American or European contexts, they cannot simply be applied directly to the sub-Saharan African context because the situation of L1 and L2 exposure is quite different. (For example, in the United States, the L2 in transitional or additive bilingual programs is usually English, which is a widely spoken LWC in the U.S.; in Africa, however, the L2 (such as French or English) is usually *not* a widely spoken LWC in the children's environment and is more akin to a foreign language.) Of these models, early-exit and late-exit transition are the two most commonly used to describe language models in Africa. They generally involve an abrupt shift into L2/Lx as the LOI at the end of lower or upper primary schooling.

Table 2. Summary of language models common references in LOI discussions

(The number in the top row refers to the grade level in school)

Model	Primary School								Secondary School			
	1	2	3	4	5	6	7	8	1	2	3	4
L1-based Instruction	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1	L1
Immersion	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx
Transitional early exit	L1	L1	L1	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx
Transitional late exit	L1	L1	L1	L1	L1	L1	L1	L2/Lx	L2/Lx	L2/Lx	L2/Lx	L2/Lx
Additive	L1	L1	L1	L1	L1/L2/Lx	L1/L2/Lx	L1/L2/Lx	L1/L2/Lx	L1/L2/Lx	L1/L2/Lx	L1/L2/Lx	L1/L2/Lx

L1 L2/Lx

Source: USAID (2012a).

2.1.3 Research implications for planning

Rather than focusing on which specific "language model" to apply, the goal of language planning should be to identify—based on the research about language and learning, the goals of the education sector, contextual factors, and the conditions needed for success—how to use language for instruction and how to teach children languages, in an appropriate manner. Rather than focus solely on identifying a specific point in time at which students "should" transition from one language of instruction to another, policy and planning dialogue should be concerned more broadly with what students need to know, in terms of both language and curricular content.

If transition from one language of instruction to another is identified as necessary to achieving a country's education goals—*and* is feasible given contextual factors (i.e., teachers are proficient and resources are available)—careful consideration must be given to what students need to know in order to make a successful LOI transition, and by when they are able to acquire the skills needed. This will likely mean identifying which languages to use for instruction and which to teach as subjects throughout a learners' education, depending on the desired learning goals and the research on effective approaches to language learning. As previously noted, evidence overwhelmingly points to the effectiveness of using an L1 (or, if necessary in a multilingual area, another language in which children are proficient) as the LOI throughout primary school (at least) to best support learners' reading development, mastery of curricular content, and learning of a second language, with additional languages taught as a subject. Evidence from the African context as well as internationally suggests the following guidance:

- **Create a strong foundation in L1/familiar languages.** Teachers need to build children's oral fluency in their L1 as well as teach them to read and write in it. Evidence from a variety of contexts suggests that at least six years of instruction in a familiar language, followed by transition to learning in an L2, can succeed under very specific and well-resourced conditions. However, the exact amount of time children will need to spend learning an L1 and L2 will vary depending on the context (teacher training, whether the L2 is spoken outside the classroom, etc.); characteristics of the languages being learned; and other factors. Therefore, initial plans to provide instruction in one or more languages should be rigorously evaluated to assess whether children are obtaining sufficient levels of literacy—as well as academic knowledge—after a designated period of time, or whether they need additional years of L1-based reading and curricular instruction before proceeding to more advanced academic content and instruction in another language.

  Long-term success in developing literacy skills in an L2 is strongly associated with learning to read and write in one's L1.

- **Build a bridge to teaching in the L2 or foreign language.** Transition of instruction to an L2 or foreign language must be gradual and well planned. Requiring children to transition too abruptly or too soon to instruction in a new language can have negative consequences for the learning process—children neither become fluent nor learn academic content well in either language. (For example, recent research conducted in India under USAID's All Children Reading Grand Challenge for Development identified certain levels of reading development children needed to obtain in a specific L1 or familiar language in order to be likely to succeed in learning English; see Nakamura, 2014.) Pupils need to be supported to use what they know about reading and writing in a familiar language before they bridge to reading and writing in L2 (a process known as *transfer;* see text box below), and they must have sufficient time to learn the L2 or foreign language prior to transition. In particular, they must have the required academic language to learn subject matter in a new language. Children and teachers should remain focused at the primary level on gaining a strong foundation in the L1 and learning the

L2/Lx well as a subject, which allows them to focus on teaching L1 literacy skills and curricular content.

- **Continue to use L1/familiar languages to support learning in the L2/foreign language.** Maintaining the L1 and developing oral and written skills throughout the curriculum helps to maximize the benefits of interlinguistic transfer, as children can continue to build a strong L1 foundation (Cummins, 2009, 2012; Thomas & Collier, 2002) and use those skills to learn an L2. If or when the language of instruction has transitioned from one language to another, use of the L1 to support instruction of academic content and for assessment is recommended. For example, new concepts can continue to be introduced in L1, then in L2. Terms and concepts can be taught in L2 to build vocabulary, and then reviewed in L1 to ensure they are well understood. Moreover, continuing to build proficiency in L1 will support ongoing L2 development. Because children may not be able to demonstrate well what they have learned in a foreign language, assessment should also take place in the L1 as needed.

Language skills transfer: Key ideas to inform planning

When children learn in an LOI that is not their L1, the curriculum needs to be informed by several research-based findings regarding which skills transfer from one language to another, and how.

First, research indicates that several skills learned in one language transfer to learning an additional language. For example, understanding that print represents speech and carries meaning needs to be learned only once. Extensive research also indicates that phonological awareness skills transfer between languages (Abu-Rabia & Siegel, 2002; Bialystok, McBride-Chang, & Luk, 2005; Cisero & Royer, 1995; Denton, Hasbrouk, Weaver, & Riccio, 2000; Durgunoglu, 2002; Genesee & Geva, 2006; Gottardo, Yan, Siegel, & Wade-Woolley, 2001).

Therefore, for developing an appropriate approach to language use and instruction, it is important to analyze linguistic similarities and differences between the two languages. If the languages are closely related, then children will likely need less time to learn the new LOI than if the languages are less related (Chiswick & Miller, 2008). Under the USAID- and UK Department for International Development (DFID/Kenya)-supported Kenya Primary Math and Reading (PRIMR) Initiative, for example, English-language instruction was designed such that letters of the alphabet that were similar to those in Kiswahili were introduced first, to build on children's existing knowledge in a more familiar language. (For a variety of reports, evaluations, and instructional materials related to the project, see www.eddataglobal.org under Countries > Kenya; see also Piper, Schroeder, & Trudell, 2015.) This is because languages that are from the same language family often have similar vocabulary and grammar. As a result, children can make use of their L1 vocabulary and grammar and transfer the general knowledge of that to the new language. However, when there is little similarity between the languages, students will have to learn many new words and a new grammar system, which takes time.

Another aspect that influences instructional planning in terms of the amount of time needed to transfer skills from one language to another is the type of alphabet or script. When both languages use the same kind of alphabet—e.g., Kiswahili and English both use the Roman alphabet—then children can use their knowledge of Kiswahili letters for learning to read English. However, if the two languages are written in different scripts (e.g., Arabic and English), then the children also need to learn a new set of symbols and a different writing direction.

(continued)

Other characteristics of the languages, such as word length and syllable structure, are also important to consider. For example, in Spanish the word for corn, "maíz," is relatively short, while in the Kenyan Saboat language, it is "nasumnyaanteet." Whether a language has simple syllables like "ba" or more complex syllables like "shrik" will need to be taken into account in teaching reading strategies in the two languages (Schroeder, 2013; Trudell & Schroeder, 2007; Van Ginkel, 2008). When the languages are different in these aspects, then the children will have to learn different reading strategies to be able to read the new language well.

The amount of time spent teaching the target language and teaching *in* the target language at each grade level will depend on several factors—outcomes desired, the amount of time available in the curriculum, and when instruction is expected to transition from one language to another. Given the current conditions in many low-income countries—such as short school days, high absenteeism, high pupil-teacher ratios, current low levels of literacy in L1/familiar languages (of teachers, students, and communities), low level of exposure to L2/Lx outside the classroom, and limited teacher proficiency in the L2/Lx—learners will need to put in more time and effort to learn both a familiar language and an L2 sufficiently to allow for academic learning. However, success in a non-native language does not come just by exposure, and in many contexts it may not succeed for the majority of the population. Therefore, assessment and honest evaluation of outcomes will be necessary to determine whether a given approach is effective. ***Box 1*** presents a series of questions stemming from the research presented above on language acquisition and literacy development, as it relates to planning for language use in education. The questions are intended to provide USAID and stakeholders with information that can be used to help make decisions about an appropriate approach to using language for education, including which languages to use for instruction and for what purposes. Such discussions should include consultations with both education officials and classroom teachers about their everyday practices and experiences, which in turn should be compared to learning outcome data available for the country to ascertain the effectiveness of current approaches.

Box 1. Questions to explore *language, literacy, and learning*

1. What is the official language of instruction at each level of education? Is there a formal policy that outlines language use for education? To what degree is it consistent with research about language, literacy, and learning?
2. What methodologies are currently recommended/mandated for implementing LOI policies? How do these relate to international evidence on language and literacy development?
3. What are actual classroom *practices* with regard to language use, and how do these relate to official policy and suggested methodologies?
4. In which languages are children taught to read and write, and at which grade level? Are current policies and practices consistent with research on language and literacy learning?
5. At what grade level are children expected to begin learning an L2/Lx, and what instructional methods are used to help them?

6. At what grade level, and for what purpose, are children expected to learn academic content through the L2 or Lx? Does the grade level at which children begin to learn an L2/Lx, and/or begin to learn in that language, correspond to research regarding what language competencies are necessary to do so?
7. Are children expected to learn to speak, read, and write the L2/Lx at the same time as it is being used as the LOI, prior to having the proficiency needed to learn in that language?
8. Is development of children's L1/familiar languages supported while they learn the L2/Lx?
9. How does current policy or practice for introducing an L2/Lx, and/or reducing the use of L1, affect children and teachers in terms of teaching practices and learning outcomes?
10. What is the current understanding among stakeholders (education officials, teachers, parents, etc.) regarding language, literacy acquisition, learning, and the advantages of instruction in L1/familiar languages? To what extent does this match contemporary research?

2.2 Relationship between LOI and the goals of the education system

Explicitly stated or implicitly embedded within most countries' education plans is the goal of providing children with the knowledge and skills that will enable them to be productive members of society—beyond their family or community—and to gain employment or be self-sufficient. The language, or languages, used to educate learners should be linked to this goal. In many countries' primary education plans, the goal of using an L2 (whether a national or a foreign language) as the LOI is to prepare students to become productive in the formal economy. Submerging children in instruction in a language they do not understand, or transitioning (too) early to L2 can undermine this goal. The research cited below highlights the connections between various education system goals and language of instruction.

- **Learning goals.** As described in the section above, instruction in L1/familiar languages in the early grades and continued maintenance and development of the L1 improves learning outcomes in *both* L1 and L2. Students perform better in all subjects when L1 is the LOI. See, for example, Sampa (2005, Zambia), the South Africa Department of Education's *Grade 6 Systemic Evaluation National Report* (2005, as cited in Heugh, Benson, Bogale, & Yohannes, 2007), Walter and Chuo (2012, Cameroon), Alidou and Brock-Utne (2011, Niger), Skutnabb-Kangas and Heugh (2012, Ethiopia), and Benson (2004, Mozambique).
- **Access goals.** Children who understand the LOI are more likely to enter school on time and attend school regularly, and less likely to drop out (World Bank, 2005, Malawi). In particular, girls who comprehend the LOI are more likely to stay in school longer and are less likely to repeat (Benson, 2004; Hovens, 2002, 2003).
- **Language goals.** Using L1/familiar languages for early and continued literacy instruction accelerates the effective acquisition of L2 or Lx in later grades; see Brown (2011, Uganda); Goldenberg (2008, US); Mullis, Martin, Foy, and Drucker (2012, various); World Bank (2005, Mali); and Walter and Benson (2012, various). With good instruction, most children can achieve proficient speaking and writing language competency in L1 or a closely related language, and a working knowledge of L2 by the end of primary school (Language Policy Unit, n.d.; Little et al., 2011).

- **Equity goals.** Providing education in a familiar language facilitates access for all. Experiencing success in the early grades is particularly important for the persistence of children coming from language minorities and non-literate environments (Alidou, Batiana, Damiba, Pare, & Kinda, 2008; Ball, 2011). Using L1 as the LOI has narrowed the achievement gap between boys and girls in some African countries (Benson, 2005; Hovens, 2002; Ouane & Glanz, 2010).
- **National unity goals.** An implicit or explicit goal of providing educational instruction in an L2/Lx is building national identity, unity, and social harmony. As noted in ***Section 1*** and in ***Annex A,*** L1-based instruction supports such important goals by giving *all* children an opportunity to learn, to become productive members of society, and to contribute to the development of strong institutions (Alesina, Devleeschauwer, Easterly, Kurlat, & Wacziarg, 2003; Easterly, 2001).
- **Cost-effectiveness goals.** Studies have found that instruction in languages children understand can be more cost-effective than providing education in an unfamiliar or foreign language (Vawda & Patrinos, 1999, Guatemala; World Bank, 2005, Mali). According to one estimate, a 4- to 5-percent increase in a country's education budget would cover immediate costs of introducing L1 as LOI, with costs decreasing costs in the mid- to long-term (Heugh, 2011b, multiple countries). Initial start-up costs can be recovered in terms of per-pupil expenditures due to higher retention and learning outcomes when pupils learn and stay in school, with a breakeven point after about two years (Patrinos & Velez, 2009).

Questions to explore how a country's education goals vis-à-vis planning for language use in education are listed in ***Box 2. Annex D: Exploring language goals in relation to LOI planning*** provides additional information and a useful tool for reviewing education goals vis-à-vis stakeholders. ***Figure 2*** further illustrates how all goals of the education system relate to language use planning.

Box 2. Questions to explore *LOI and the goals of the education system*

1. What are the access, equity, and learning goals of the primary education system?
2. Are the education sector's goals language-specific?
3. Does achievement of the country's education goals require children to be proficient in certain languages? If so, what level of proficiency is needed in which languages, and for what purposes? Are the levels of proficiency required to achieve the language goals necessary and/or realistic?
4. To what degree is current language of instruction policy and/or practice helping or hindering the achievement of the country's education goals?
5. What implications do the country's education goals have for the approach to using language in education? For example, do they have implications for teaching certain languages as subjects or using them as LOI?

Figure 2. Relationship between language use in education and goals of the education system

2.3 Sociolinguistic context

Most sub-Saharan African countries consist of many regions and communities that vary in the number of languages residents speak and the degree to which different languages are used in everyday life. One country, therefore, may have multiple language environments. Often, a range of contexts may exist in any one country, so a language plan needs to be flexible enough to allow education authorities to make decisions about teaching and learning that help students achieve the goals of the national curriculum in the most effective way for them. Emphasis is therefore not on providing teaching and learning opportunities in the *same* way to everyone, but on providing services that result in *equitable* opportunities to learn. This means that the use of language in the classroom may be different in different areas of the country, depending on the context. Moreover, it may change over time as orthographies are established, materials are developed, and teachers are trained, thereby allowing additional languages to be used.

2.3.1 Language environment

Common types of language communities are described below, including a summary of how their composition may affect language use in the classroom.

- In ***monolingual communities*** (often in rural environments), thousands and even millions of people may speak only one language. In this environment, schools can teach in the L1 of all learners, and efforts must be made for teachers to speak those languages, too.

- In ***communities with one main language***, where a children and their families may speak another language at home, learners are likely to be exposed to a language of larger communication within the community and "on the playground." In this situation, teachers can use the language of wider communication for providing instruction while explicitly acknowledging and affirming speakers of the other language by asking them how to express vocabulary and concepts in their language (names of objects, counting, greetings, etc.). Indeed, research in northern Cameroon has shown that students are more successful at learning in an African language spoken within their environment than learning in a foreign language such as English (Walter & Chuo, 2012).
- In ***bilingual communities***, often found in semi-urban or market areas, but also in rural environments with nomadic or other minority groups, children may be bilingual, or they may come to school proficient in only one of the main languages, or they may need support to gain academic-level proficiency. Conducting a language mapping exercise can help to clarify what approach to instruction is needed. For example, instruction may need to be provided in two different languages within a school, in multi-grade arrangements, or by different teachers to accommodate different learners' L1s. In contexts where teachers have limited proficiency in learners' L1s, trained, bilingual community members may work side-by-side with certified teachers to support bilingual instruction.
- In ***linguistically heterogeneous communities***, residents may come from many different language, cultural, and/or ethnic backgrounds. At least two situations are common in these communities, which are often found in urban environments: Adults and perhaps children have a common language of wider communication that can be used in school, or they speak each other's languages in varying levels of proficiency but lack a single common language. In both cases, the traditional "solution" has often been to select a medium of instruction not familiar to any group—e.g., an official, foreign, ex-colonial language, believing it is "neutral" and prevents favoritism.

  Evidence and experience, however, indicate several more effective approaches to providing instruction in environments where several languages are spoken. Where a LWC is prevalent, using a widely spoken regional language as the LOI prior to introducing national and international languages can be most helpful in facilitating both academic content learning and acquisition of additional languages. In these situations, care should be taken to ensure that use of a language of wider communication for instruction is acceptable to all learners and their families, and that instruction is appropriate based on children's proficiency if they speak other languages at home. (Moreover, while use of a common language may be preferable or more feasible than using multiple L1 in the short term, a country can still explore long-term plans that would provide education in additional L1 languages as materials and teachers become available to support instruction.) Even in situations where no language is widely shared (such as in Cameroon in Guinea-Bissau), the linguistic and cultural proximity of a regional language, even if it is not the learners' L1, is likely to provide better access to initial literacy and content learning than a foreign language like French or Portuguese, which are more likely

to prevent learners from gaining the foundational knowledge they need to be successful in school (Benson, 2003; Walter & Chuo, 2012).

While a less common situation, in schools where children speak distinct L1s and more than one language may be needed for instruction, less traditional approaches need to be explored in consultation with local education authorities, teachers, parents, and children. For example, students can be grouped by language and each group managed as a multi-grade classroom, with learning and teaching materials in each language and support from L1-speaking parents. In Ethiopia, for example, classes are often divided into two streams, one for Amharic and another for a different L1 language. Parents can choose when and in which class they want the children to learn. While these bilingual classroom language environments may exist, it is important to emphasize during the planning process that the majority of schools in a country are likely to be monolingual.

Decisions regarding which languages to use for instruction in any given environment should be based on a given context—both nationally and at a regional level. This includes an accurate understanding of the languages spoken in an area and the proficiency of children in particular (which may different from that of adults). As such, a language mapping exercise—and in particular a school language mapping exercise—needs to be conducted to identify which languages are spoken, and to what levels of fluency, for the children, adults, and teachers; and to identify schools where a more nuanced approach to instruction may need to be employed. A process for mapping the language context in a given country, region, or school is outlined in ***Section 3.1*** and in ***Annex E: Planning for language use in education: Illustrative timeline and tasks***.

2.3.2 Language development and standardization

Another factor to consider with regard to the language environment is the linguistic development of the languages to be used. Because standard written forms develop over time and with use, using a language for instruction actually fosters development. However, for languages without established orthographies or writing systems, a minimum level of standardization should be achieved before teaching and learning materials are developed, to ensure consistency across teaching. (See ***Section 3.4*** for further details on orthography development.)

Box 3 presents questions USAID and other stakeholders can use to investigate the sociolinguistic context in a given country and its implications for language planning for education.

Box 3. Questions to explore *the sociolinguistic context*

1. What languages are spoken by parents and their children in relevant geographic areas within the country as L1 and L2/Lx? To what levels of proficiency? What areas of the country are linguistically homogenous or heterogeneous?
2. What attitudes about different languages must be considered when making decisions about their use? For example, are certain languages considered more "prestigious" or "powerful" than others, and if so, what are the implications of this?
3. What are the languages spoken, written, and read by the teaching workforce? Does teachers' current language repertoire correspond to the languages spoken by children, or is there a mismatch in teacher-student language?
4. What level of exposure do children have to an L2/Lx outside the classroom? Based on the research on language learning, what are the implications of this level of exposure to language development and use in education?
5. Do up-to-date language maps exist? If not, what is the process for developing them and who would be involved?
6. Does information exist regarding the languages spoken by teachers and students at the school level? If not, what is (or should be) the process for gathering this information? How can communities be involved in school mapping activities?
7. If many languages are spoken within a community or school, is one of them be used by a majority of children? Is there a language of wider communication that could be used, or should different languages be used in different schools? If needed, how can different languages be used in the same school by employing teachers with different language skills, and/or parental teacher aides?
8. Which languages have standardized orthographies (writing systems)? Which orthographies need to be harmonized and/or developed?
9. What processes exist (or need to be developed) for appropriately and efficiently harmonizing, standardizing, or developing orthographies, if needed?
10. Which linguistic and cultural groups are actively promoting their languages and can be engaged in the process of standardizing orthographies and/or developing curricula and materials?

2.4 Educational context

Planning for language use in education must also take into consideration certain characteristics of the education system in relation to what is needed to e*ffectively* implement a particular strategy. Key requirements for successful instruction, no matter what language is used, are described below. These factors must be considered in the process of identifying which and how to use different languages for instruction.

- **Instructional time.** Instructional time must be available during the day to teach literacy and language skills to the level of proficiency required by the curriculum. The less time available for literacy instruction in L1/familiar languages, the more difficult it will be for children to acquire the proficiency level needed to facilitate L2/Lx acquisition and to learn subject matter. Research suggests that the more time available to learn to read, the better the outcomes. Experience and evidence indicates that in lower primary at least 90-120 minutes a day should be dedicated to reading and writing instruction (Goldenberg,

2011; Taylor, Raphael, & Au, 2011). Depending on the curriculum, this might be entirely in one language or split between two languages.

- Pupils will also require time and exposure to the L2 or Lx commensurate with the level of proficiency required (see ***Section 2.1.2*** above for discussion of factors that influence how much time is needed to acquire proficiency in an L2/Lx). A country therefore needs to explore how much instructional time is currently available for teaching language and literacy (both L1 and additional languages), and identify whether this is sufficient for successful L1 acquisition and learning, as well as Lx learning if part of the curriculum. Of note: If the context requires that a large part of pupils' day be spent trying to learn a new or unfamiliar language, little time will remain for learning academic content.
- **Curriculum and materials.** Curricula need to be revised to reflect an agreed-upon approach to using language for providing instruction, for teaching it as a subject, and/or for teaching subject content. Teaching and learning materials aligned to the curricula must also be available, including materials for teaching reading as an L1, for teaching languages as L2/Lx, and for teaching subject content. While a lack of materials in learners' L1/familiar languages should not preclude teaching in a particular language, the pace and efficacy of introducing and using languages will depend on the availability of materials, and should therefore be planned for accordingly over the short and long term (i.e., additional language for instruction will need to be integrated into use as materials are available). Recently developed technology, including software developed under the USAID-supported "Enabling Writers" initiative,[3] can facilitate the development of materials in multiple languages and make production much easier, faster, and less expensive than previously.
- **Teacher language proficiency, qualifications and training.** Teachers need to be highly proficient in the language(s) that their pupils speak and understand best so that they can interact effectively in the classroom. They also need to be literate in the language(s), which usually requires some training if the teachers themselves did not learn in the languages in which they are expected to teach. (Note that they can often back-transfer from the L2/Lx to their L1, so this process is not insurmountable; it does, however, require the commitment and support of the education ministry.) Teachers also need to be proficient in the additional language(s) being taught, as they may be the only L2 or Lx speakers to whom the children are exposed.

Alternatives for making best use of teachers' language and subject-matter skills

Because it is unrealistic to expect all teachers to be highly proficient in multiple languages, to be able to teach those language as subjects, and to be highly knowledgeable in curricular content and effective pedagogy, school systems where teachers are currently expected to fulfill all of these duties should consider alternatives. For example, in many contexts in Europe and North America, second or foreign language instruction is conducted by specialists in that language. Other alternatives to traditional one-teacher/one-classroom models to explore include partner teaching or allowing the most L2-proficient teacher in the school to specialize in language instruction.

[3] For additional information about the "Enabling Writers" All Children Reading Grand Challenge competition, see InnoCentive, Inc.'s host Web page: https://www.omnicompete.com/enabling_writers.html.

- **Teacher recruitment, placement, and support.** The feasibility of a language plan for education is highly dependent on how teachers are assigned to and supported in their schools. Therefore, recruitment and placement policies and processes must consider teachers' proficiency in certain languages in ways that promote linguistic and cultural match-ups between teachers and schools/communities. As with the other factors described above, a system's current situation does not mean that a plan for instruction in familiar languages is not feasible, but that careful planning is needed to meet the requirements of the language plan.

Planning that takes into consideration the above requirements for effective education will help to ensure that a plan for language use in education will be successful. ***Box 4*** contains questions for investigating these requirements in order to guide planning.

Box 4. Questions to explore *language and educational context*

Instructional time

1. How much time is currently available for teaching *curricular subject material*?
2. How much time is currently available for teaching *reading and writing in the L1/familiar languages*?
3. How much time is currently available for *teaching the L2/Lx as a subject*?
4. Have any studies been conducted to measure instructional time available in schools? How does the amount and quality of instructional time available potentially facilitate or hinder children's ability to learn both academic content and languages?

Curriculum and materials

5. Does the curriculum differentiate when and how to use specific languages for LOI versus teaching these languages as subjects?
6. Does the curriculum differentiate providing literacy instruction for L1 versus L2/Lx learners?
7. In what languages are teaching and learning resources currently available for teachers and learners? Does this match policy and practice with regard to language of instruction?
8. What resources need to be developed to effectively provide instruction in target L1 languages? What individuals or institutions can contribute to resource development? What would be the process for doing so?
9. What resources exist outside the classroom that could be used and/or adapted for the formal education system?

Teacher language proficiency, qualifications, and training

10. What languages do teachers speak and what are current levels of language proficiency of teachers? Does this match policy and practice with regards to language of instruction?
11. Do school personnel have the language skills to provide instruction in the languages spoken by students, or are some language groups underrepresented? If this is not known, what needs to be done to obtain this information?
12. Doe pre- and in-service training prepare teachers to teach as subjects and as LOI the languages outlined in existing language policy or curriculum, or in the languages prioritized for instruction in ongoing planning efforts? If not, how can teacher training be aligned to current, or anticipated, policy and practice for teaching L1/Lx?
13. Is teacher training provided in teachers' L1 languages/familiar languages? Do teacher trainees have an opportunity to strengthen their oral and written language skills in the languages in which they teach?
14. Are L1 and L2 language teaching methodologies part of teachers' training and experience?

Teacher recruitment and placement

15. How are teachers currently recruited and placed, and to what extent are language skills considered?
16. How can teachers be placed with consideration for their proficiency in the languages their learners understand?
17. How can technical and financial resources be mobilized to promote teacher professional development for language groups that may be underrepresented in the teacher workforce?
18. What support is provided to teachers to keep them in the teaching profession, and to support their instruction across different language contexts?

2.5 Stakeholder considerations

Several issues related to stakeholder attitudes and involvement in education planning need to be considered as part of the language planning process (see figure at end of section). First, those involved in planning should be aware of different stakeholders' attitudes, beliefs and vested interests about different languages (and the groups who speak them), as well as their use for education provision. For example, some languages may be considered more "prestigious" or "powerful" than others due to the ethnic groups who speak them, or the functions the languages play in the country (i.e., as a language of wider communication and/or a language used for government). However, it is important to remember that the status of the language may stem in part from exclusionary LOI policy or practice, and a plan for language use in education that allows for additional languages to be used in schools has the potential to empower and provide legitimacy to language/ethnic groups that may previously have been excluded from access to education (and therefore future work and other opportunities). Additionally, given the ethnic identity and functions associated with a language, some language speakers may be opposed to learning in another group's language, even if they are proficient in it.

Another factor to consider is the knowledge, beliefs and roles that different stakeholders play with regard to language learning. For example, some education officials may think instruction in L1 is not necessary if their own schooling was provided in an L2/Lx. Parents, too, may be opposed to education in their home languages if they think it impedes their children's acquisition of an L2/Lx that they feel is important for them to learn. As a result, they may be unsupportive of a plan that provides instruction in familiar languages.

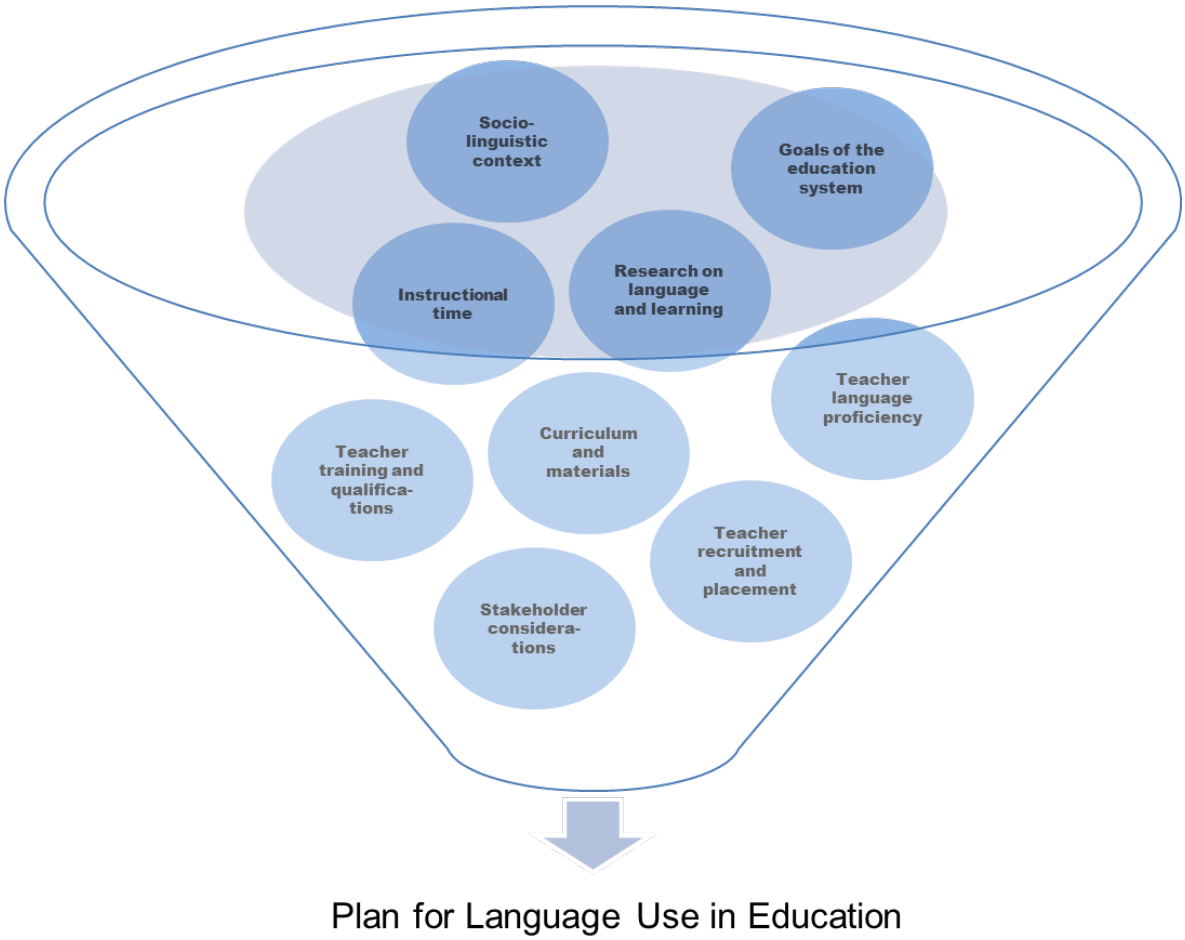
All of these reasons (whether real or only anticipated) are frequently cited as justification to maintain an ex-colonial language as the LOI and/or not to provide instruction in children's familiar languages. They need to be honestly discussed with all stakeholders in order to ensure that factual information about language use and learning is understood, and so that attitudes about languages and their use can be addressed in a way that is acceptable and effective. While current lack of support for instruction in L1/familiar languages should not be taken as a de facto reason not to implement it, it is an important consideration for planning. Ultimately, ignoring stakeholder concerns is costly, in terms of failure, dropout, and repetition rates if inappropriate languages are used, as well as the potential failure of a plan for language use in education if stakeholder concerns are not addressed.

Box 5 contains questions to explore stakeholders' interest and engagement in planning and implementing language policy and plans.

Box 5. Questions to explore *LOI and stakeholder engagement*
1. What role do different stakeholders (and divisions within institutions) play, and what resources do they have, with regard to the development and implementation of a plan or policy related to language of instruction? 2. Looking at the key areas for planning for language use in education described in ***Annex E***, which institutions, departments, and individuals have primary responsibility for these areas? Are there any areas for which clear responsibility is not assigned? 3. What levels of knowledge do education officials at the central level, school directors, teachers, parents, and community members have regarding L1-based teaching and learning? Regarding L2-based language learning and instruction? 4. What are the attitudes and beliefs of different stakeholders toward instruction in L1/familiar languages in particular? Are certain stakeholder groups opposed to providing education in the L1/familiar languages, and if so, why? 5. What strategies can be used to inform stakeholders about research on L1 and L2/Lx language development and learning? 6. What strategies can be used to effectively engage a diverse and wide range of stakeholders in the decision-making process regarding language use in education? 7. What are parents' and community members' current level of involvement in their children's education? How might this be affected if instruction were to be provided in familiar (L1) languages? If provided in a L2/Lx? 8. How might parent and community support be harnessed and/or improved with regard to language-of-instruction issues? 9. Who from among the stakeholder groups can serve as leaders or "champions" to shepherd a process for developing and implementing a plan for language use in education over the long term?

Figure 3 below summarizes key factors to consider when planning for language use in education.

Figure 3. Factors to consider when planning for language use in education



3 Recommendations and steps for planning for language use in education

How to effectively plan for the use of language—and in particular, the use of L1 or other familiar languages—to provide quality education and improve learning outcomes remains an issue throughout Africa. Even countries with policies in place to provide L1-based, multilingual instruction often struggle to implement them well. While stakeholder concerns (as indicated in ***Table 1*** on page 3) may contribute to the lack of implementation progress, inertia is often due to a lack of a comprehensive plan that clearly maps out the steps needed in the short, medium, and long term to implement the plan effectively.

USAID can therefore play an important role in helping to move forward a process of developing and/or operationalizing an appropriate and feasible plan for effective language use in education. This should include working closely with country counterparts to develop plans that address concerns and challenges and are acceptable to policy makers, to parents, to teachers, and to other education practitioners. USAID education officers can play a particularly helpful role in providing information on and encouraging research-based technical approaches to using language in the classroom (teaching L1 and Lx languages appropriately), as well as holistic planning across the education sector with regard to teacher training, materials development, assessment, and financial planning. Finally, they can work with countries to develop a plan that lays out key actions to be taken over the short-, medium- and long-term, as well as in developing a realistic budget for carrying them out.

Alternative approaches to L2/Lx language learning

Aware of the myriad advantages of providing instruction in children's familiar languages, most high-performing education systems (in particular, those in Europe and East Asia), have an opportunity to learn in their L1, or familiar language, through the end of secondary school and often at the tertiary level. Although overall good educational outcomes in these countries can be attributed to many different factors, the fact that most pupils understand the language the teacher speaks certainly helps facilitate access to learning. Even countries with national or official languages spoken by relatively few speakers worldwide continue to teach children in their L1 through secondary and even tertiary levels because of the advantages of L1-based instruction. Proficiency in additional languages is facilitated more often than not by teaching the languages as subjects rather than using them as languages of instruction.

USAID can lead or assist with these efforts by supporting and organizing stakeholders to carry out specific activities and tasks, described in this section and summarized in ***Figure 4*** on page 25. While the activities are generally listed in chronological order, certain activities may take place concurrently (such as materials development and alignment of teacher training), while others, such as stakeholder engagement, should continue throughout the entire planning and implementation process.

The following resources and tools are provided to assist USAID and other stakeholders in the planning process:

- ***Annex E:*** **Planning for language use in education** includes a summary of activities and tasks to conduct during the planning process, including an estimate of the amount of time needed, for language planning.
- ***Annex F:*** **Language use planning worksheet** can be used to guide a situational analysis and consolidate information needed to guide planning. Information gaps in the worksheet can be used to identify areas for which information needs to be gathered to make informed decisions.
- ***Table 3:*** **Conditions for effective language plan development and implementation** contains a checklist outlining what needs to be in place for successful implementation of a language plan for education.

Additional resources related to planning for language use in education are available from the MTB-MLE network (www.mlenetwork.org).

Figure 4. Steps to take for effective language planning

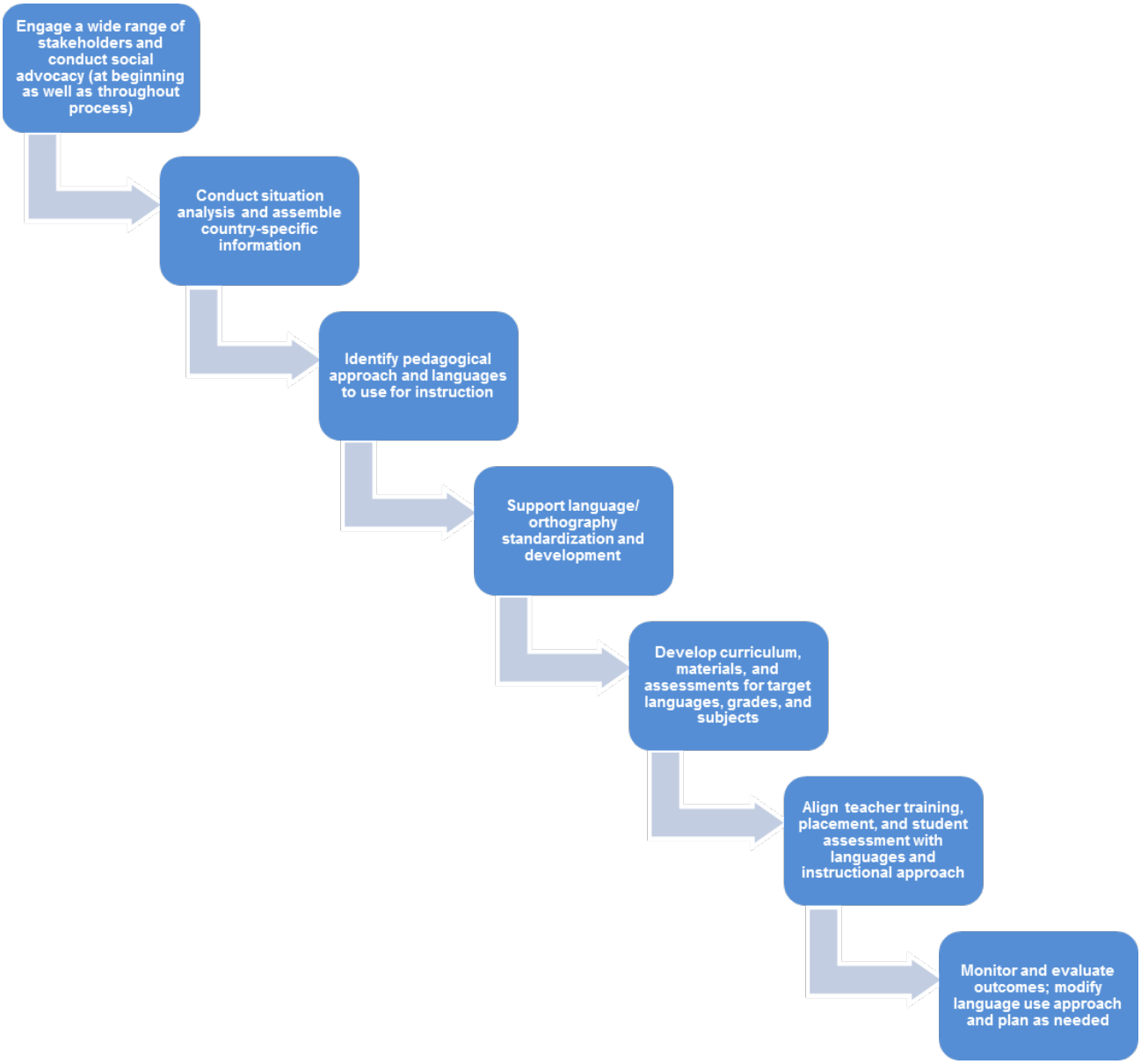


Table 3. Conditions for effective language plan development and implementation

Area for planning	Checklist	
General planning	✓	Country-specific information assembled and situation analysis conducted to make informed decisions.
	✓	Language planning and implementation team and "champions" identified to shepherd the planning and implementation process over the long term.
	✓	Transparent process for decision-making and planning developed, communicated, and agreed upon.
	✓	Factors to consider with regard to language use in education discussed and considered vis-à-vis country context.
Language mapping, standardization, and selection	✓	Accurate data gathered regarding languages spoken and levels of proficiency in relevant geographic areas and schools (appropriate stakeholders involved in language mapping).
	✓	Agreement among stakeholders on the number of languages in which to provide instruction (note that some may need to be phased in over time).
	✓	Orthographies standardized for languages to be used for instruction and to be taught as subjects.
	✓	Languages to be used for instruction, and to be taught as subjects, over the long and short term identified based on appropriate considerations and through a consultative process.
Curriculum and materials	✓	Curriculum and teaching and learning materials developed and available for all languages of instruction, curricular content, and grades.
	✓	Per the pedagogical approach for instruction, materials should be appropriate for teaching languages as subjects/foreign languages and for teaching content materials in languages, as appropriate.
	✓	Sufficient, effective instructional time available to pupils to learn to read and write the targeted L1, learn the L2/Lx, and learn curricular content per education goals.
Teacher qualifications and training	✓	Teachers proficient in the languages that will be used for instruction and as subjects (proficiency levels determined based on accurate data).
	✓	Pre-service teacher training curriculum, approach, and materials reflective of the plan for using language for instruction in schools (e.g., teacher training provided in language in which instruction will be provided, includes focus on literacy instruction, L2-based instruction, bilingual approaches).
	✓	Lecturers/teacher educators/professors at teacher training colleges aware of and "on board" with new language plan, proficient in the languages of instruction as feasible, and trained in new approaches as needed.
Teacher recruitment and deployment	✓	Recruitment and deployment policies and processes allow for effective implementation of the language plan while at the same time do not unduly burden teachers or restrict their professional development.
Assessment and evaluation	✓	Classroom-based and national learning assessments and exams align with the languages of instruction.

Area for planning	Checklist
Stakeholder engagement and advocacy	✓ All key stakeholder groups identified and representatives involved in the planning and implementation process. ✓ Advocacy and mobilization conducted with stakeholders, using most appropriate methods and media, to garner their input and support for the language plan.
Monitoring and evaluation	✓ Plan in place for monitoring and evaluating the plan for language use in education, including teacher training, curriculum and materials, and learning outcomes.

3.1 Conduct situation analysis and assemble country-specific information

A necessary first step to laying the groundwork for planning is conducting a situation analysis and assembling country-specific information related to language use in education. This can be carried out by a team of stakeholders already tasked with developing a policy or plan for language use in education, or it can be done as a way to generate stakeholder awareness based on the information gathered.

A first step in this process is to **become familiar with the country's experience in planning and implementing language policies and/or plans for education.** The goal of this task is to understand the country's past and/or current experience with language use in education, including languages used, organizations involved in implementation, successes and challenges of these efforts, stakeholder involvement (or lack thereof) in planning and implementation, etc. This task may involve interviewing people involved in these efforts, reviewing project reports, and becoming familiar with the country's history with language planning. As part of this situational analysis, it will be helpful to have the following documents and information:

- official LOI policies and actual implementation and practices (requires consultation with teachers and others at the school level, since policy may differ from practice);
- existing language maps at the national and subnational levels;
- instructional resources available in various languages;
- stakeholder attitudes and beliefs about languages and language use in education; and
- efforts to provide L1-based instruction and their results (can be past or current experiences, in nonformal or formal education sector).

At the same time, **consolidating the results of recent early grade reading or other learning assessments** can be helpful in understanding the effects of current language policies, plans, and practices (for example, gaps in achievement corresponding to languages spoken in different geographic areas), as well as opening discussions with officials in the Ministry of Education about the need to develop or modify an existing approach to using language for education provision.

As noted earlier in this report, understanding the language context and the linguistic composition of communities and schools is a key step to language plan development and implementation. As such, USAID can assist countries to **conduct a language mapping exercise** to gather reliable

and up-to-date information about what languages are spoken in the country, in which geographic areas, and at what level of proficiency. Support for school-based language mapping in particular can help to identify which languages learners speak and understand well in order to identify which languages can and should be used as LOI in specific areas and schools. As part of a school-mapping exercise, a survey of the languages teachers speak—and their levels of fluency—can also be conducted to identify whether there is a discrepancy between the languages of pupils and their teachers, as well as to identify training and support that may be needed.[4] Furthermore, the exercise can help to document whether official language policies are being implemented, and to identify the languages that are or could be used more effectively at the school level, providing a starting point for updating or creating a plan for LOI at the national and local level. A school language mapping exercise, coupled with language mapping that includes out-of-school populations, may be particularly beneficial in identifying underperforming regions and communities, and in engaging parents and other stakeholders in the "groundwork" needed to develop an effective plan for language use in education to improve both access to and equity in education. For example, school mapping data can be gathered by asking families which language(s) their children speak best, as well as by asking teachers. Schools can also orally test incoming students. Teaching and learning can then be organized around learners' strongest languages.

Key Idea: Language mapping

Language mapping provides valuable information regarding which languages should be initially prioritized for use as LOI based on objective factors, including number of speakers and fluency levels. It also helps to determine teacher placement, training, and resource (textbook) needs vis-à-vis languages spoken, as well as how the approach to L1-based instruction may need to be adapted depending on how many languages are spoken, and to what level of proficiency, in a given community or school.

While government officials should ideally play a prominent role in a language mapping exercise, the data gathered can also be used as a tool to open dialogue regarding the need for instruction in languages children understand and to bring stakeholders "on board" to support a particular approach or plan. In Mali, for example, USAID supported a language mapping exercise in 2011 to obtain accurate information on languages spoken by teachers and students to identify which languages to use for instruction in specific schools (see text box). The results provided updated information that helped dispel some concerns about the complexity of providing L1-based instruction in the area (Rhodes, 2012; USAID/Mali, 2011). ***Annex G*** includes links to language maps for most African countries; the MTB-MLE network (www.mlenetwork.org) also offers mapping examples. SIL's Ethnologue (Paul, Simons, & Fennig, 2014) has language maps (including the year in which data were collected) for sub-Saharan African countries that can be used as a reference to plan additional mapping as needed.[5]

[4] Depending on the purpose and available resources, strategies for assessing teachers' language can include gathering self-reported data on what languages teachers consider to be their L1 and asking them which languages they can read and write well. More formal literacy assessments also can administered as part of teacher training registration or enrollment, school placement, or in-service training.

[5] For an example, see http://www.ethnologue.com/map/BJ for a language map of Benin.

School-based language mapping: The example of Mali

Although Mali introduced bilingual instruction in 13 languages in 2,550 schools in 2005, the system was not able to provide materials or teacher training to implement effectively in all languages immediately and simultaneously.

A school language-mapping exercise conducted in 2009 found that only 1% of the 945 schools offered bilingual education in the most appropriate language for their students, taught by a teacher trained and equipped for this task. Not surprisingly, an Early Grade Reading Assessment conducted that same year found that fewer than 17% of second graders were able to read a single word in any of the four Malian languages or French.

To further understand the language environment and improve the country's ability to provide L1-based instruction, a language-mapping exercise supported by USAID found that all children in one region shared the same L1 in 68% of schools. In 90% of the remaining schools, the children/community used one of just four languages as a lingua franca or common language. The language mapping exercise therefore indicated the feasibility of reaching a significant percentage of students with L1-based education, while at the same time highlighting the need to increase the percentage of teachers speaking those languages.

The study therefore recommended that priority be given to producing materials and training teachers in the four lingua franca identified in the study, with additional languages phased in as teaching and learning materials—as well as teacher training—became available in those languages.

3.2 Engage a wide range of stakeholders and conduct social advocacy

Policies and practice related to language and teaching have the potential to privilege some groups and cultures and to perpetuate disadvantage for others, intentionally or inadvertently. Examples include selecting only one language for official classroom use or neglecting to develop curricular materials in another. Successful planning for language use in education—and eventual implementation of a plan developed—therefore requires the engagement of a wide range of stakeholders and the mobilization of their resources and effort. These stakeholders may include, but are not limited to:

- **Officials from the Ministry of Education** and, to the extent they exist and are relevant, from the offices that manage nonformal education initiatives and cultural, minority, or religious affairs. Leaders and personnel from divisions within these institutions who are vital to getting a language-related policy or plan adopted and implemented should be included.
- **Teachers and teacher unions.** Teachers are the ultimate implementers of language policies, and their early buy-in and involvement in providing instruction in familiar languages is key. Teachers and teacher unions can be directly involved in key activities, including language mapping and situational analysis, as well as the development of language-specific materials, given their experience, needs, and knowledge of children's interests in topics and stories.
- **Teacher training colleges.** Any plan for language use in education must be reflected in pre- and in-service teacher education. Therefore, teacher training institutions need to be fully on board in the design and development of policies and plans, which will require their full support to be effective.

- **Reading specialists from universities.** These specialists may contribute to developing textbooks and supplementary reading materials for the various languages used for learning.
- **Groups organized to support culture and language.** Language policies may intentionally or unintentionally limit the use of minority languages in ways only speakers of those languages can identify. Additionally, members of cultural groups can be involved in developing and/or reviewing curriculum and materials (such as stories) to make sure they are culturally and linguistically appropriate.
- **Government curriculum units, textbook developers** and **public and private printers** who produce books. These groups should be called upon to help identify what teaching and learning materials exist and to map a plan for developing the required resources for teachers and pupils in a cost-effective manner.
- **NGOs, language associations, linguistics institutions, and religious organizations** (including regional, national, and international groups) may already be providing or supporting pupil and/or teacher education in L1 languages. They may be able to contribute teaching and learning materials in those languages, and their experiences may offer useful lessons on best practices for instruction in familiar languages. Additionally, language specialists may assist with the development and standardization of orthographies and the development of additional materials. Finally, these organizations may be useful partners in conducting social advocacy.
- **Parents and community members and associations.** Both literate and non-literate members of a community contribute in many ways to the development and implementation of an effective plan for using L1-based instruction. This includes participating in language mapping, developing materials, supporting teachers by providing after-school support to learners, contributing materials to create a print-rich classroom, etc. Parents' understanding of language-of-instruction policies and plans, and the value of providing instruction in familiar and other languages, is key to successful implementation, as it will determine, in part, whether children attend school regularly and whether they receive the necessary support at home for succeeding in school.

Each of these stakeholder groups will bring to the table a set of concerns that need to be addressed through advocacy and social mobilization efforts. However, they will also bring to the table knowledge, resources, and experiences that can be harnessed to develop an effective—and acceptable—plan.

Where a broad working group of education stakeholders focused on language of instruction does not already exist, the results of the situation analysis, and the questions and ideas in this document, can be used to guide a discussion on the need to assess the effectiveness of existing policies or practices with regard to language use in education.

As part of the process of engaging stakeholders, **senior-level leaders and "champions"** need to be identified who can continue to move forward efforts to plan for effective language use in education. Ideally the "champions" should be people who are likely to remain in their positions

over several years in order to shepherd the process, particularly if changes in the education system leadership overall may take place.

3.3 Identify pedagogical approach and specific languages to use

USAID can assist countries in analyzing the relevant research on language and learning vis-à-vis country contextual factors and education system goals to **identify a pedagogical approach to teaching language and literacy and the specific languages to use in the education system**.

As described in detail in ***Section 2,*** in a context in which multiple languages are spoken, an effective pedagogical approach will likely include:

- Focusing on building children's L1/familiar language and literacy skills in the primary grades.
- Providing instruction in L1 (or other language familiar to children) to facilitate academic content learning, at least through the end of primary school.
- Beginning instruction of the L2/Lx as a subject to allow children to gain sufficient proficiency to transfer their L1 skills to learning the L2; using language specialists to teach the L2/Lx.
- Providing opportunities for children to continue building their L1/familiar language skills throughout primary school, and into secondary school as well, as a means to support both L2 learning and academic learning.

If identified as necessary for achieving education, transition from L1-based to L2/Lx-based instruction may take place as well. As previously noted, this should take place only when important conditions have been realized: Children have acquired sufficient proficiency to learn *in* the new languages; teachers are sufficiently proficient in the L2/Lx to teach subject content in those languages; and teaching and learning materials geared toward children learning in a second language are available.

Special considerations should be given to planning for a trilingual instruction, especially in the near term (see text box below).

As part of identifying the pedagogical approach to language use, a country must **prioritize languages to be used, and for what purpose.** Decisions regarding which languages (and which dialects, if more than one) to select for instruction should start with a review of the research and evidence on use of L1 and L2/Lx for learning and instruction. A clear understanding of the goals of learning different languages versus learning *in* those languages is needed for effective decision-making.

The number of languages used to provide instruction (and the languages that are taught as subjects) then depends on a number of factors and contextual conditions, including:

- Number of speakers of the languages and levels of proficiency,
- State of different languages' orthographies,
- Stakeholder buy-in and support for providing instruction in different languages,

- Availability of teaching and learning materials in different languages, and
- Availability of teachers to teach in certain languages, and qualifications to teach languages as L1 and as subjects.

Although languages should not be precluded from being used as LOI if they are spoken by a minority of children, do not have a standardized orthography, do not have sufficient resources for instruction, and/or do not have sufficient number of teachers to provide instruction, such factors can help to identify which languages may be feasible to use first. For example, initial efforts may need to target a select number of languages that reach the most children, have a standardized orthography, and have sufficient materials and teachers for instruction, with additional languages added over time as resources become available. That said, due to political dynamics, or given a history of inequality among certain socio-linguistic groups (such as a particularly low rates of school enrollment or achievement among speakers of certain languages), languages spoken by a smaller percentage of pupils may need to be prioritized for initial use to mitigate these factors. (In some cases, smaller languages may also have more established orthographies, as was the case in Uganda.)

Trilingual approach to instruction: Factors to consider

In certain contexts, stakeholders may wish to provide instruction in an L1, a national language/lingua franca/language of wider communication, and an official or international language. While the goal of such an approach may be laudable, it is important to consider whether effective implementation is feasible, especially at the primary level, in the short term, and in resource-constrained environments where reading outcomes are likely to be currently low. Given the instructional time, materials, and teachers proficient in all of these languages that are needed to successfully provide trilingual education, consideration should be given to deferring the introduction of three languages until strategies for achieving good learning outcomes in at least one language, or using a bilingual approach, have been developed and successfully implemented. Alternative approaches to be considered include:

- Defer teaching the lingua franca/national language, or the "official" or international language, until secondary school, when children have had an opportunity to learn in an L1 first and to solidify their literacy skills.
- Teach the lingua franca and/or the "official" or international language as a subject (as opposed to using it as an LOI), especially if instructional time is limited.
- In multilingual environments, allow bilingual children to start learning in the language of wider communication, if desired and if they exhibit a level of proficiency in that language when they begin school.

Finally, language experts and speakers of the languages should be consulted to identify appropriate and effective strategies for accommodating multiple dialects or regional variations in a language. For example, vocabulary differences across regions may be managed through the development of teaching and learning materials that provide alternative word/vocabulary lists, depending on the region in which they are used, whereas significant variations in dialect may require separate materials.

Experience from countries like Ghana, Papua New Guinea, and Ethiopia suggests that providing instruction in multiple languages within one country is feasible if efforts are well-planned. These include (i) phasing in the use of languages based on standardization of orthography and support for implementation; (ii) organizing language teams to work together to develop materials based on the national curriculum; first implementing in linguistically homogenous schools; (iii) implementing L1-based instruction on a staggered, staged basis (such as was done in Bolivia—see

López, 2006); and (iv) initially making L1-based instruction optional (as in Mozambique) so as to provide the opportunity for L1-based instruction for communities that would like to adopt the approach, while allowing time for the experience and results in a small number of communities to generate awareness and support for scale-up.

If it is not possible due to time, logistical, or other resource constraints to teach all children in L1, an L2/Lx that is closely related to their L1 and/or one that is spoken widely in the larger community may be the best alternative. (Indeed, in some multilingual contexts, children may be proficient in a language not technically considered their L1, and learning in it may be a feasible option; see Nakamura, 2014 research from India as an example.) However, as previously noted, additional languages may be phased in over time as materials are developed and teacher training and placement eventually match language-specific instructional needs. Stakeholders should also be engaged in identifying regions or communities of high need, and in setting initial priorities. To avoid problems in identifying languages to include as an LOI, it is important is that the decision-making process be made as transparent as possible, with clear criteria for selecting and prioritizing languages to use in specific communities. All stakeholders should be consulted to ensure that political factors do not unfairly sway decisions.

3.4 Support language standardization and development

In tandem with decision-making regarding the selection of a pedagogical approach to language use in education, USAID can help support language standardization and terminology development for academic use. One recent instructive example of USAID's added value in this regard comes from Uganda, where a health and reading program is assisting in developing both assessments and teaching and learning materials in 12 local languages plus English (see text box below). Universities, language experts, local NGOs, or linguistic organizations such as SIL International, can be tapped to help communities develop and standardize writing systems for their languages. Other resources related to language standardization include a UNESCO toolkit (Kosonen, Young, & Malone, 2007; Malone, 2007). Free dictionary software (for example, the Wesay freeware provided by SIL: www.sil.org) also can be downloaded from the Internet to help communities to quickly start an initial dictionary.

Orthography standardization and reading instruction: USAID support in Uganda

Prior to developing reading materials in 12 Ugandan languages under the School Health and Reading Program, project staff worked intensely with technical experts to ensure that several orthographies (language writing systems) that were new or for which consensus had not yet been established were reviewed and standardized (RTI International, 2013b). Over an intense period of approximately six months, the project team and advisors helped establish or strengthen 12 local language boards; conducted orthography review workshops for each language; prepared 30- to 50-page orthography guides; and collaborated with the language boards to discuss, correct, amend, validate, and adopt the writing systems. The project team then trained writers in the standardized orthographies, assisted in compiling appropriate vocabulary lists for each language, and oversaw the authors' practice in reading and writing their languages. Teaching and learning materials were then developed using the agreed-upon orthographies.

3.5 Develop curriculum, materials and assessment for target languages, grades and subjects

As previously emphasized in this report, children and their teachers must have sufficient teaching and learning resources in L1 and L2/Lx to learn these languages and academic content. This includes curriculum and teachers' guides for the relevant subjects, as well as textbooks and supplementary reading materials that are appropriate for each level. Pupils should be provided with at least one individual reading primer so they can have their "eyes on text" during the reading period, while teachers should create a print-rich environment that includes text on the walls (alphabet charts, letter/word cards, displays of pupil work, etc.), and a small library of books and other reading materials (newspapers and other locally available sources of print) so they can engage with print outside of their pupil book. Malone (2012) provides a list of suggested materials.

USAID and its partners can play an important role in supporting the development of materials in various languages for teaching across the curriculum. Several strategies can be employed to efficiently develop materials, depending on the context. For example, literacy and subject materials can be systematically developed for the target languages, one grade and/or language at a time, or simultaneously. Low-cost desktop publishing and self-made materials are also being used to more easily meet materials needs. Local publishers and NGOs (such as language associations or civic groups) can be tapped for materials development, while authors' workshops can help to train a cadre of native language speakers how to develop appropriate literacy materials for Ethiopia (see case study in text box), South Africa, and Papua New Guinea are also countries that have successfully developed materials in multiple languages.

Successful strategies for developing curriculum and materials for multiple grades and languages: Ethiopia case study

In Ethiopia, the USAID READ Technical Assistance project (RTI International 2013a, 2014a) assisted the Ministry of Education and regional education bureaus to revise the L1 (mother tongue) national syllabus for grades 1-8, adapt the syllabus for the seven Ethiopian languages most widely spoken as L1, and develop student books and teachers' guides to support the development of reading and writing skills in the classroom. Rather than selecting a handful of language experts to write the books, materials development teams were formed that included teachers, local story writers, and language specialists identified by the regional bureaus. These teams received intensive training and ongoing support throughout the materials-development process, which took approximately one year. As a result, more than 15 million children will benefit from locally produced, culturally appropriate learning materials for L1 reading and writing, while more than 100 language specialists and educators have gained capacity to develop syllabi, scope and sequence and learning materials in L1 languages. The government further plans to develop and revise materials in additional languages.

Good planning can help facilitate the process of materials development. This includes budgeting enough time for materials to be developed, as well as to be field tested and revised before being used on a wide scale. Factors to consider include the number of grades and subjects for which materials are needed, the number of languages, and whether materials can be adapted and translated from one language to another. Time required for official Ministry approval of materials also needs to be factored into the process.

Strategies to facilitate an efficient materials development process include the following:

- Language teams can collaborate to develop a common structure and content for teaching and learning materials, teachers' guides, and other supports based on a national curriculum, then work separately to translate and adapt them appropriately.
- Resources can be formatted in a way that allows for multiple languages within the same document (i.e., teachers' guides with information in multiple languages).
- The capacity of the government, technical experts, and other partners in the country to contribute to materials development should also be considered. As noted in the case of Ethiopia, capacity developed was an integral part of the process, which required time before and during the process of materials development.
- Schools and community members should be activity engaged in the process as well. For example, reading materials can be made by teachers and parents familiar with children's experience and interest, as well as the local context.

As previously mentioned, sufficient, effective instructional time in the early grades is necessary to learn to read and write the L1, learn the L2/Lx orally, and learn curricular content. Therefore, as part of the curriculum development process, the amount of instructional time available needs to be assessed and potentially modified based on the amount of time needed to effectively teach target languages and subjects**.** USAID can encourage government partners to **examine the curriculum to determine whether the amount of instructional time for language and literacy instruction is adequate, and whether children have enough time to become proficient in the target languages for academic learning**. In Ghana, for instance, education authorities directed districts and schools to include 45 minutes of reading instruction as part of its 90 minutes of language and literacy in their school timetable (USAID's Request for Applications for the Partnership for Education: Ghana *Learning*, p. 11). Various countries, such as Ghana, have identified the percentage of time that teachers should spend teaching and learning Ghanaian languages and English.

Similarly, in Kenya, a key aspect of the Primary Math and Reading (PRIMR) Initiative (supported by USAID and DFID) was ensuring that pupils in schools supported by the project had time to practice reading. A policy study produced by PRIMR for the Ministry suggested 40 minutes as a minimum for daily reading lessons in the early grades (Bunyi, Cherotich, & Piper, 2012). However, experience suggests that such prescriptions require clear guidelines for teachers and the necessary support (such as teachers' guides and learner materials for different subjects) to ensure that the guidelines are appropriately followed. Moreover, the amount of time (and approach) being used for instruction in L1 (or other language familiar to children) and the teaching of, or in, additional languages will need to be evaluated over time to identify the appropriate approach given the specific context.

In addition to reviewing and planning the amount of time officially available for instruction, USAID can further encourage reflection and support research to identify the *actual* amount of instructional time taking place in schools. This is particularly important given research indicating that high rates of teacher and pupil absenteeism, teacher strikes, unscheduled school closures,

and time off task in many African countries significantly limits the amount of time children actually spend learning.[6] Given the potential for the lack of instructional time to undermine efforts to more effectively use language for instruction, USAID and partners can explore with the government ways to ensure that time on task is maximized.

Finally, curriculum and materials development need to be accompanied by efforts to align the language(s) of assessment to those of teaching and learning. USAID can work with country partners to **ensure that learning assessments, including school leaving or entrance exams, are available and conducted in the languages that best allow children to show what they have learned.** Teacher training programs should also emphasize the need to continually assess pupils in the language they know best to avoid the problem of confusing L2/Lx ability with content knowledge. USAID can support teacher training colleges and ministry assessment units to align all assessment with the languages of instruction.

3.6 Align teacher training, recruitment, and placement with language policies and practice

As noted earlier in this report, teachers cannot effectively provide instruction if they do not speak the same language as their students, and if they do not have the skills necessary for teaching a language as a subject and/or teaching subject matter in the language. USAID can play a role in assisting the education sector to review, reflect, and revise teacher training content and recruitment and placement procedures to create an effective approach for language use in education. Key considerations and best practices to keep in mind include:

Teacher recruitment and placement strategies for meeting language needs

The *2013/14 Education for All Global Monitoring Report* (UNESCO, 2014, Chapter 6, "A four-part strategy for providing the best teachers") advocated for a number of teacher recruitment and placement strategies to address inequities, including shortages of teachers who speak various L1 languages, and the real and perceived deprivations of teaching in rural areas where minority languages tend to predominate. Among the strategies are locally based recruitment, various types of monetary and housing incentives, and establishment of clear career paths.

- Being able to speak a language does not necessarily mean teachers will be able to teach the language as a subject, or even to teach *in* the language, particularly if they did not learn in the language themselves, or they are not able to read it themselves. Pre- and in-service teacher training should be provided in the languages that teachers will be expected to teach *in* so they gain the pedagogical vocabulary and literacy levels needed.[7] This is true even for instruction provided in L1. Additional opportunities may also be needed to help teachers develop their language proficiency so they feel comfortable teaching, reading, and writing in those languages.
- Teachers need to be taught appropriate methodologies for teaching L1 as a language and for literacy development; for teaching L2/Lx language development; and for using

[6] See various studies conducted in several countries under the USAID Education Quality Improvement Program (EQUIP2), available from http://www.equip123.net/webarticles/anmviewer.asp?a=686&z=26.
[7] Ethiopia, for example, mandates that teacher training be provided in the nationality language used for the area.

bilingual/multilingual strategies to support and scaffold both language learning and the learning of academic content. Ongoing support needs to be provided so teachers do not become frustrated and abandon teaching in either L1 or L2/Lx.

- In linguistically homogeneous environments where one main language is spoken, recruiting/placing teachers based on their language capacity can ensure that students and teachers understand each other on the most basic level. However, recruitment and placement efforts must be sensitive to teachers' professional and personal needs and should not unfairly restrict those who speak minority languages to difficult urban or remote areas. language
- For language groups that are underrepresented in the teaching workforce, efforts can be made (such as scholarships and special outreach programs) to improve access to teacher training programs for speakers of these languages. To fill immediate needs in situations where large numbers of learners are not being taught by teachers who share their language, temporary measures include recruiting community-based teacher assistants, developing fast-track or alternative certification routes and distance learning programs, and using translators in the classroom. Incentives should be offered to ensure that teachers stay in areas where they are most needed.

Teacher language proficiency: Realistic expectations

Experience suggests that it is unrealistic to expect the majority of a country's teaching workforce to be skilled at teaching subject matter, at teaching languages as a subject, *and* at teaching subject matter in an L2, an expectation in many countries in sub-Saharan Africa. Efforts to improve teacher language proficiency in an L2/Lx that is ostensibly a foreign language is likely to be unsuccessful on a wide scale. For example, despite major investments in English-language training in Ethiopia several years ago (the federal government committed 41% of the education budget to improving 220,000 teachers' English-language skills), follow-up revealed that little sustained improvement was achieved (Heugh et al., 2007). Ethiopia has since devoted significant investments (through USAID support; see previous text box) toward providing education in national languages, including teacher training. Countries that wish to provide instruction in L2/Lx should consider identifying a cadre of language specialists skilled at L2 language instruction to enable teachers to focus on content knowledge.

Aligning pre- and in-service training with a plan for language use in education is essential to ensuring its successful implementation in the long term. Under the USAID Reading for Ethiopia's Achievement Developed (READ) Technical Assistance (TA) Project, for example, pre-service training is currently being revised to align with new curricula that have been developed for teaching in seven L1 languages in grades 1-8.

3.7 Develop and implement a language policy and/or language plan

Language mapping, foot-in-the door activities (see text box below), and pilot projects can all help build support for effective approaches for language use in education. Ideally these approaches should be codified into official policy that establishes an agreed-upon approach that all stakeholders and education institutions can reference with regards to planning for language use in education. The policy should be clear and concise, yet should be flexible enough to allow for local decision-making and adaptation as required. It should be based on broad stakeholder

Getting a foot in the door: Pilot programs

In the short run (1–2 years), several "foot in the door" activities can begin to help government and communities explore the feasibility and value of instruction in L1 (if it has not already been implemented) and address key stakeholders' concerns about providing instruction in familiar languages. In addition, they can be valuable in assessing the effectiveness of different approaches to providing instruction, such as use of teaching assistants to support instruction in multiple languages in the same community, providing instruction in L1 for a certain number of years, and using language specialists to teach L2/Lx before such methodologies are implemented on a large scale. "Foot-in-the door" initiatives may include:

- authorize L1 use by teachers and students in select schools for piloting;
- supply teachers and teacher training institutes with teaching and learning materials in L1;
- teach L1 as a subject in or outside school hours;
- initiate language/culture clubs led by teachers or community members; and
- involve learners in L1 radio broadcasts or adult literacy programs.

Such activities, which may already be implemented by NGOs on a small scale, can provide proof of concept, create opportunities for assessing new teacher training and student learning materials and approaches, and help build support for L1-based approaches. (For example, experience in Cambodia showed that L1 use in nonformal education can pave the way for formal education [Benson & Kosonen, 2010]). More intentional pilot projects can help test new curricula, build orthographies, and demonstrate how L1-based instruction improves student motivation, learning outcomes, and parental involvement in education.

To be effective, pilot initiatives should include carefully designed research protocols, including baseline and endline measurement and naturally occurring or fully randomized control groups. Project evaluation indicators should measure learning outcomes in both L1 and L2. Ideally, resources for longitudinal studies of student outcomes can help to measure the long-term effects of particular approaches.

Finally, "foot-in-the-door" and pilot initiatives should develop a communications strategy for disseminating results.

consultations as well as on research-based recommendations, and should be accompanied by a comprehensive plan for language use in education. The Department of Education in the Philippines, for example, included issues of language use in education in its Enhanced Basic Education Act of 2013. This was followed by a series of implementing rules, regulations, and guidelines, which outlined in more detail issues related to language use in curriculum content, materials development and distribution, and teacher training (Philippines Department of Education, 2013, 2015).

While the existence of a language-use policy alone is inadequate for implementation, a policy is not necessarily a prerequisite for the development of a plan for language use in education in some circumstances. In many contexts, developing or revising language policy can be a time-consuming and politically sensitive endeavor. USAID can consult with government and other key stakeholders to identify whether a policy on language use in education needs to be developed or revised, and can help to identify a strategy for doing so. However, if the government is not able or willing to revise or develop an official policy, or if the process for policy development and approval is likely to be particularly long and/or contentious, USAID can collaborate with a broad range of stakeholders to develop (or revise) a plan for language use in education. Such a plan for language use in education should outline major activities and specific tasks to carry out,

institutions and people responsible, timeline for implementation, and budget. The process of developing the plan should be as collaborative and "bottom up" as possible to ensure that activities are coordinated and that related aspects of education—e.g., teacher training, curriculum development, assessment—are aligned and stakeholders are committed to sharing responsibility for implementing the plan. The plan should be widely circulated and available to all.

Developing a national approach to reading instruction is one way in which issues of language use in education, and L1 and LOI issues in particular, have been brought to the fore. Therefore, efforts aimed at improving reading instruction can be leveraged to open a broader discussion on the need for system-wide planning on language use in the classroom. However, it is important to note children will not become fluent readers, or gain academic language in the target languages, if they are not given opportunities to learn curricular content in those languages. As such, **efforts to teach reading and writing need to be coupled with efforts to provide academic instruction in the target languages (both L1 and L2/Lx).** Therefore, USAID can support countries to offer opportunities for children to learn math, social studies, science, and other curricular subjects. This will help them to become better readers, but also to learn those subjects better.

Other key ingredients for successful language plan development and implementation are described below:

- **Alignment across institutions and departments within the education sector with respect to language use planning is critical to success.** Curriculum development units, teacher training institutions, departments responsible for learning assessment, and other agencies need to ensure that their activities are aligned with the approach for language use in the classroom. In addition, **coordination is needed among the various education levels** (early childhood development, primary education, secondary and tertiary education, as well as special needs education and, potentially, nonformal education providers as well) to ensure that children's learning experiences follow a rational and orderly progression from one level to the next.
- **Decentralized and local decision-making** can also be a helpful ingredient to implementing and maintaining successful language plans for education, as evidenced in a number of countries currently undertaking reforms to provide L1-based, bi- or multilingual education. Districts and schools need to be able make decisions on which languages to use for instruction based on the languages currently spoken in their area. Ethiopia, for example, was able to roll out local language instruction in 23 languages because certain aspects of leadership and decision-making were decentralized (Heugh, Benson, Bogale, & Yohannes, 2007). Regional education bureaus along with linguists determine which languages meet local needs, then develop materials in appropriate languages based on national curriculum guidelines (Skutnabb-Kangas & Heugh, 2012). In Uganda, the government has provided guidelines to language communities regarding the criteria for considering use of a language in education. Language communities are now working to meet these requirements, and language use in education has become a shared responsibility of the community and government. In the case of Mozambique, the

2002 curriculum reform allows schools to choose between monolingual, semi-bilingual, or bilingual modes, and the voluntary nature of the change has allowed linguists and educators the time needed to develop appropriate materials and training strategies (Chimbutane, 2009). Still, strong support from a centralized ministry of education office may be needed, at least initially and in key areas. This may include providing a clear, research-based curriculum for adaptation into different languages; supporting the production of teaching and learning materials, as well as assessments, in the target languages; and coordinating technical support and donor involvement. For example, such centralized support has been provided by the Department of Education in the Philippines, which is currently implementing a multilingual approach to learning in 19 languages, with USAID supporting reading improvement in four major languages through the Basa Pilipinas project (Villaneza, 2014).

- **Finally, language plan objectives and activities should be developed in partnership with the institutions and/or individuals responsible for carrying them out, and accompanied by realistic short- and long-term timelines and a budget.** A budget for each of the components is helpful to identify where funds may be needed, and whether these are one-off expenses (for example, language standardization efforts, development of pupil and teacher materials in new languages, etc.) or recurring costs that may already be accounted for in the overall education sector budget (such as materials distribution, teacher training, etc.). It is important to emphasize to stakeholders that many costs associated with developing and implementing a new plan for language use in education will be one-time expenses and that they will be recovered through less "wastage" (i.e., poor learning outcomes and dropout) resulting from effective use of language in education. Moreover, a large proportion of the cost of many of these one-off activities is the time needed for government personnel to participate in the planning and development of the language plan and products. Once these one-off expenses have been incurred, the

Factors affecting time needed for language planning

The amount of time required for planning will depend on several factors, including:

- The country's previous or current experience implementing some form of L1-based instruction, and existence of policies and/or plans for doing so
- Level of support within the Ministry of Education and other relevant institutions (teacher training colleges, unions, etc.) and stakeholders (parents, teachers, etc.) for L1-based instruction
- Availability of curriculum and materials in target languages and teachers trained to teach in them
- Financial resources available to develop and implement plan (note that many are "one off" costs associated with initial development of curriculum, teaching and learning materials, and teacher training resources)
- Availability of "champions" and key stakeholders to assist with the planning and implementation process; ability of the education sector to move forward on a plan.

However, experience indicates that many activities can take place relatively quickly with good planning and support from key stakeholders (see country experiences described in various text boxes). Moreover, as activities get under way, support often continues to grow as people see the results of their labor (i.e., a set of textbooks developed in two languages can quickly lead to more being developed for other languages, as lessons learned are applied to the development of those in new languages).

education sector's large fixed costs—teacher salaries and infrastructure—are not likely to be affected by a plan for language use in education. It is important to remember that cost, in and of itself, should not be viewed as a barrier to providing instruction in languages that children understand, given the long-term benefits to learning outcomes and to the cost-effectiveness of education provision.

3.8 Monitor and evaluate outcomes

Monitoring and evaluating the effectiveness of policies and plans for language use in education is critical to continued success. The results, especially at the pilot stage, can be used for advocacy purposes to generate support for effective language use in education. For example, efforts to pilot mother tongue-based bilingual education in Mozambique recently resulted in a decision by the country's Ministry of Education and Human Development to use 16 national languages, in addition to Portuguese, starting in 2017 (Intituto Internacional da Língua Portuguesa, 2015). In Kenya, PRIMR's recent pilot of reading instruction in two mother tongues demonstrated significant gains in reading outcomes compared to a control group taught only in Kiswahili (Piper, 2015).

As part of the monitoring and evaluation process, analyzing the cost-effectiveness of L1-based instruction is also important to produce country-specific data to inform the scale-up of initiatives for offering L1-based instruction (see text box below). Results can also be used to inform scale-up. Information obtained during the M&E process helps identify what is working well and what is not, guiding necessary changes (to curriculum, teacher training, teacher placement, etc.), as well as supporting additional research, particularly as it relates to African languages and context.

PRIMR Initiative in Kenya:
Cost monitoring and analyses

The PRIMR Initiative pilot program in Kenya was designed to allow measurement of the costs and the cost-effectiveness of several program scenarios at boosting student achievement (RTI International, 2014b). Of interest were the costs of development, publication, and dissemination of classroom materials in Kiswahili and English; coaching and instructional support; and information technology. The scenarios that proved most effective for the first two cohorts of program (treatment) schools were singled out and applied at the end of the program to the schools in the control cohort. In addition, based on the tracked costs of PRIMR-developed teaching and learning materials in Kiswahili and English, the PRIMR technical team compared the costs with what the government was currently spending on textbooks and found that the government's current allocation would be sufficient for a 1:1 ratio of books for all pupils in Kenya at low cost, if the cost of the books were more competitive (RTI International, 2014b). Similar cost tracking continues under the British Department for International Development (DFID)-funded portion of the program, which is supporting instruction and classroom materials in the Gikuyu and Lubukusu languages.

4 Conclusion: Summary and way forward

While several challenges contribute to poor learning outcomes in many low-income countries, throughout sub-Saharan Africa, millions of children are not learning as a result of language-in-education policies and practices that facilitate neither effective development of literacy skills, nor learning across the curriculum. And as a result, billions of dollars continue to be wasted as children drop out or leave school without essential literacy, numeracy, and other skills needed for the 21st-century workforce. This quality, equity, and financial imperative therefore demands that USAID and other concerned stakeholders engage in discussions and take on the sometimes difficult work of implementing research-based and contextually appropriate plans for language use in education.

While there is not a "one size fits all" when it comes to planning for language use in education, as this guide has indicated, evidence and experience indicate several key areas and considerations to keep in mind when developing a research-based, contextually appropriate, and feasible plan for language use in education:

- **Research on language and learning.** Children must be able to read and write the language(s) of instruction well in order to learn academic content (like mathematics and science) through them. They need appropriate levels of academic vocabulary in both L1 and L2/Lx to learn academic content effectively. This suggests that instruction in L1, or other language familiar to children and teachers, should continue throughout primary school, even while L2/Lx is taught as a subject and, if necessary, begins to become an LOI.
- **Transfer of skills across languages.** Children need explicit instruction and support in transferring skills from one language to the other, and they need high-quality instruction from teachers who are highly proficient in both or all of the languages involved. If teachers do not have this proficiency, particularly in an additional or unfamiliar language, alternative strategies—such as designating language specialist teachers—should be explored.
- **Language context and mapping.** Accurate data regarding which languages are spoken in which communities/schools, and at what level of proficiency, need to be gathered through linguistic mapping or family surveys in order to identify the appropriate languages to use for instruction and effective pedagogical approaches, as well as teacher placement strategies and training needs.
- **Orthography development and standardization.** An agreed-upon orthography should exist for all languages used in the classroom; it is preferable if that orthography is standardized, but its use in education will facilitate the process, so ongoing linguistic discussions should not prevent educational use of a language.
- **Curriculum and materials.** Materials based on national curriculum standards/competencies should be developed in each language and for the relevant grade

levels and subjects; language teams and subject specialists can work together to create similar materials in different languages.

- **Teachers' language proficiency.** Teachers should be highly proficient in the language(s) students speak and understand, as well as the languages in which instruction is provided. They are likely to need training in reading and writing their own languages, as well as in the pedagogical vocabulary they will need to teach academic content.
- **Pre-service and in-service synchronization.** Collaboration among teacher trainers, teachers, and others is needed to ensure that pre-service and in-service programs, materials, and methods are aligned with languages used to provide instruction and strategies for teaching both L1 and L2/Lx.
- **Further research, monitoring, and evaluation.** Any plan for language use in education should be assessed vis-à-vis student outcomes to identify what works and what may need to be modified, since a plan put in place today may need to be modified in a year or several years, based on learning outcomes. Additional research may be needed to ascertain context- and language-specific answers to inform changes in pedagogical approach.

Bringing strong, relevant evidence from both research and practice to the discussion table is an important first step in increasing understanding of the need for language use planning. However, because LOI policies and practices are tightly bound to political, historical, and cultural considerations, these issues must also be addressed. To the extent that USAID and others can engage diverse stakeholders involved in the teaching and learning process, their engagement will help ensure that a plan will be feasible, accepted, implemented, and supported over the long term.

Developing and implementing an effective plan for language use in education is a long-term endeavor that can be accomplished with thoughtful planning to ensure alignment of all aspects of education provision. While many changes can take place in the short term, education planners, donors, and others who support them need to take a long-term view to language-use planning in order to be successful. The benefits of taking a long-term approach—increased education access, learning outcomes, cost-effectiveness, and overall equity and inclusion—outweigh the cost of maintaining the status quo. This investment in terms of time and resources is well worth the reward of quality education for all.

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Annex A. Detailed literature review of worldwide evidence and best practices on L1-based multilingual instruction

A significant body of research demonstrates that providing education in familiar languages confers many advantages to an education system, its teachers, and children—and to society overall. These advantages include the following[8]:

1. Improves education access and equity

Children who understand the language of instruction are more likely to enter school on time, attend school regularly, and drop out less frequently. A recent analysis of data from 26 countries and 160 language groups showed that children who had access to instruction in their mother tongue were significantly more likely to be enrolled and attending school, while a lack of education in the first language was a significant reason for children dropping out (Smits, Haisman, & Kruijff, 2008). If instruction in children's L1 was available in half or more of schools, the percentage of out-of-school children in that group was 10 percentage points lower than if little or no access to L1-instruction was available. Moreover, the positive effects of L1 instruction were stronger for groups concentrated in rural areas, a key finding for countries like Malawi with a large percentage of the population outside urban centers. In another study in Mali, learners in classrooms that used children's L1 as the language of instruction were five times less likely to repeat the year and more than three times less likely to drop out (World Bank, 2005). Given the current high levels of repetition and dropout in Malawi, this evidence is particularly noteworthy.

In a number of studies, L1-based instruction has had an especially positive effect on girls' enrollment, attendance and school participation. This is likely to be because girls and women often have different opportunities than boys and men to access languages other than their L1 or home language(s). Research reviewed by Dutcher (2001) and O'Gara & Kendall (1996) showed that unless girls and women work in markets or factories, they are much less likely than their male counterparts to be exposed to an L2. Differences in language competence often go unnoticed at school, especially if girls are given fewer opportunities to speak, and if teachers expect them to do less well than boys. Any reticence on the part of girls to speak may be interpreted as lack of academic ability, rather than lack of exposure to the language of instruction. Researchers in Africa (e.g., Benson, 2004; Hovens, 2002, 2003) and Latin America (e.g., Sichra, 1992) have found that girls who learn in the L1 stay in school longer, are more likely to be identified as good students, do better on achievement tests, and repeat grades less often than their peers who do not learn through a familiar language. This evidence suggests that using the L1 for teaching and learning greatly improves opportunities for educational access and attainment for female students.

[8] The majority of this text first appeared in the document *The influence of language on learning: Recommendations on planning for language use in Education,* developed for the USAID Malawi Teacher Professional Development Support (MTPDS) program (USAID, 2012a).

2. Facilitates reading acquisition

Importantly, instruction in a familiar language also improves reading outcomes. Children learn to read faster if they speak the language of instruction because they already have a "mental storehouse" of vocabulary, knowledge of the linguistic construction of the language, and the ability to pronounce the sounds of the language. This prior knowledge facilitates learning to read, as well as comprehension.

Analyses from the 2011 Progress in International Reading Literacy Study (PIRLS), conducted in 49 countries, showed a clear relationship between language and reading outcomes. Higher average achievement in reading was associated with learners who attended schools where a greater percentage of pupils spoke the language of the PIRLS assessment as their L1 (Mullis, Martin, Foy, & Drucker, 2012). Specific country programs also show the influence of language of instruction on reading. An evaluation of the Primary Reading Programme in Zambia, which served 1.6 million children between 1999 and 2002, revealed that grade 2 pupils' reading and writing scores in English showed 575% improvement compared to children in English-only programs. Grade 1 children's reading and writing scores in Zambian languages improved 780% (Sampa, 2005).

In Kenya, a large randomized controlled trial demonstrated the effectiveness of teaching children in two mother tongues in comparison to teaching in one of the national languages, Kiswahili. The results of the USAID- and DFID-supported PRIMR project's pilot of an instructional package including teacher training and materials in two mother tongues (Lubukusu and Kikamba) resulted in significant gains in reading outcomes for children learning to read in their mother tongue, as compared to Kiswahili. When they were assessed in fundamental reading-related skills such as letter-sound fluency, decoding, oral reading fluency, and reading comprehension, the learners' average scores were twice those of children learning in Kiswahili (Piper, 2015).

In Uganda, grade 1 students who received instruction from teachers trained in providing reading instruction in L1 and received materials in their language performed better than their peers in control schools (identified 20 letters per minute and read 7 words per minute compared to 6 letters per minute and reading 1 word per minute) (Brown, 2011). Similarly, in Mali, children in an L1 program supported by the *Institut pour l'Education Populaire* performed better than their peers in control schools at the end of two years of instruction, although results indicated that better instruction may still be needed to improve fluency (Spratt, King, & Bulat, 2013).

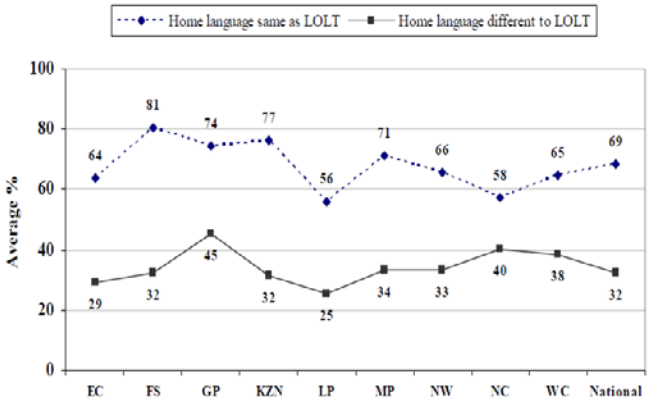
3. Improves learning outcomes

Being able to read and understand the language used in the classroom in turn facilitates the learning of academic content. A recent comprehensive review of research and reports on language and literacy concluded that becoming literate and fluent in a familiar or first language is key to children's overall language and cognitive development, as well as their academic achievement (Ball, 2011). Evidence from numerous countries attests to the improved learning outcomes that accompany instruction—and assessment—conducted in familiar languages. For example, an analysis of results from the large-scale international assessment Trends in

International Mathematics and Science Study (TIMSS), conducted in 36 countries in grade 4 and 48 countries in grade 8, found that children who reported "always" or "almost always" speaking the language of the test at home performed better in math and science than those who reported they "sometimes" or "never" spoke the language in which they were tested (Martin, Mullis, and Foy, 2008).

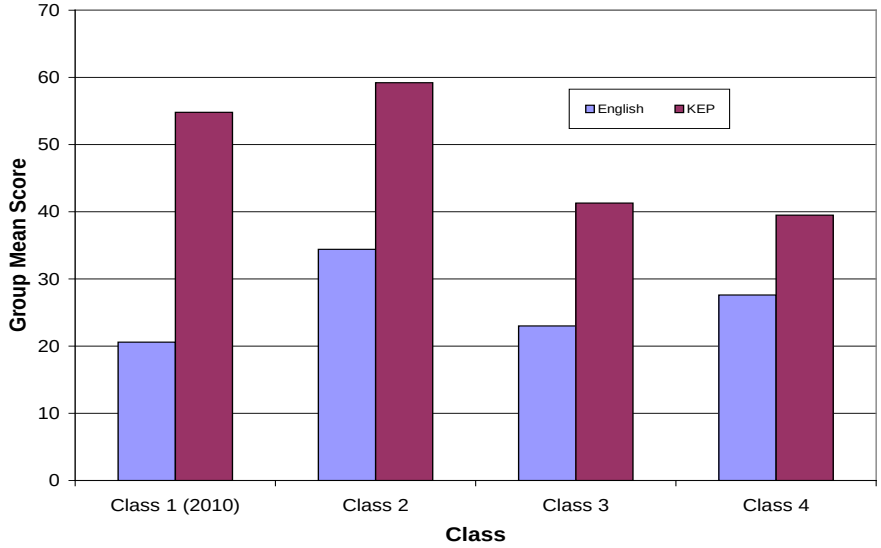
Data from South Africa further revealed that learning outcomes were higher for pupils whose home language was the same as that of classroom teaching and learning. In ***Figure A1*** below, the dotted line indicates scores for children whose home language was the same as that used in the classroom, while the solid line connects average scores for children whose home language was different (South Africa Department of Education's *Grade 6 Systemic Evaluation National Report*, 2005, as cited in Heugh, Benson, Bogale, & Yohannes, 2007). (The abbreviation above the graph indicate the names of different provinces "LOLT" is language of learning and teaching.)

Figure A1. South Africa grade 6 achievement by home language and province, 2005



A five-year study (2008–2012) of a pilot program in Cameroon also demonstrated that children who were taught in a familiar language, Kom, performed significantly better—124% on average—in multiple subjects (including math and English) than a control group of peers who attended schools where English was the MOI (Walter & Chuo, 2012). ***Figure A2*** shows the significant difference in learning outcomes for children in the Kom language program (KEP) and children in the English-medium program (English).

Figure A2. Cameroon Kom program – 2011 results



In Mali, students in bilingual schools (called Pédagogie Convergente schools) learn exclusively in their L1 in the first few years of primary education, then learn in French for half of the school day in grades 5 and 6. Evaluations have shown that these children consistently outperform their peers in French-only schools on end-of-primary school national exams (UNESCO, 2008).

In Vietnam, educators recently developed a new curriculum to provide instruction in familiar languages to minority-language speakers in the country. The result was that 68% of grade 1 learners achieved the level of "excellent" compared to only 28% of children who were not learning in their L1 (UNICEF, 2011). Importantly, the improvements in learning outcomes were true in math as well; children who received math instruction in a familiar language scored, on average, 75% on the assessment, while children who received instruction in an unfamiliar language scored only 61% (UNICEF, 2011). Similarly, an analysis of the achievement of year 8 learners in Ethiopia between 2000 and 2004 showed that performance in mathematics and the science was far better for those using L1 as the MOI than for those using English. Research from southern Africa, too, has shown the influence of language on learning. In Botswana, pupils taught in Setswana had significantly better understanding of science concepts than pupils taught in English (Alidou & Brock-Utne, 2011).

Importantly, instruction in L1 languages that includes *assessment* in a familiar language allows pupils to better show what they have learned, leading to more accurate learning assessments because language is no longer a "confounding factor" in interpreting the results.[9] This in turn helps teachers to better identify what children know and do not know, and consequently provide appropriate instruction. Moreover, use of L1 for assessment appears to be particularly beneficial for girls because any negative preconceptions on the part of teachers regarding girls' academic ability are challenged (Benson, 2005; Hovens, 2002; Ouane & Glanz, 2010).

[9] If assessments are conducted in a language a child does not understand, poor outcomes are difficult to interpret because one does not know whether the child did not understand the academic content, or if s/he simply did not understand the language of the assessment.

4. Helps children learn additional languages

Learning to read in one's L1 also facilitates L2 and foreign-language acquisition. A substantial body of research suggests that literacy and other skills and knowledge transfer across languages. In other words, if a child learns something in one language—such as decoding skills and comprehension strategies—the child can transfer these skills to another language more easily. However, children will need explicit instruction and support in transferring skills from one language to another, as well as high-quality instruction in the L2 and consistent exposure to the language.

Five meta-analyses, or analyses of *multiple* research studies, from the United States found that "learning to read in the home language promotes reading achievement in the second language" (Goldenberg, 2008, p. 14). In Africa as well, instruction in local languages has proved helpful in improving outcomes in L2 or foreign languages. In Mali, for example, extensive use of L1-based instruction in primary years resulted in improved mastery of French (World Bank, 2005).

5. Promotes effective teaching practices

Use of familiar local languages also confers benefits to teachers, who themselves face significant difficulties when asked to present academic concepts in a language they do not speak well. Classroom observations conducted in several countries (Benin, Botswana, Burkina Faso, Ethiopia, Ghana, Guinea-Bissau, Mali, Mozambique, Niger, South Africa, Tanzania, and Togo) showed that when teachers used a language that was unfamiliar to learners (and likely to themselves as well), they relied on teacher-centered teaching methods such as chorus teaching, repetition, memorization, recall, and code-switching that are largely ineffective (Alidou & Brock-Utne, 2011). On the other hand, when teachers and learners speak a common, familiar language, teachers use more varied and effective teaching practices. For example, in a recent study in Tanzania and Ghana, teachers were found to use a wider range of teaching and learner-involvement strategies when they taught lessons in African languages than when they taught in English (EdQual, 2010). Similarly, a study of a bilingual education program in Niger showed that more teachers used more effective teaching practices, and there was more dynamic interaction between teachers and pupils, as well as among pupils themselves (Hovens, 2002) than teachers in a single-language comparison group. Additionally, teaching was more learner-centered, teachers used more open-ended questions, and teachers allowed pupils to find solutions to problems (Hovens, 2002).

6. Improves learner self-confidence

The affective domain, involving confidence, self-esteem and identity, is strengthened by use of the L1, increasing motivation and initiative as well as creativity. L1 classrooms allow children to be themselves and develop their personalities as well as their intellects. Enjoyment of school and experiencing success are factors that improve attendance, participation and achievement, as documented by studies of classroom interaction and interviews with students, teachers, and families (Alidou, Batiana, Damiba, Pare, & Kinda, 2008; Ball, 2011).

7. Supports parental and community involvement in education

When children learn in a familiar language, their home culture is validated and reinforced, creating a bridge between the formal school system and the community. This, in turn, facilitates parental involvement and strengthens community support for education because language is not a barrier to participation in their children's education. Rather, use of familiar or home language in school makes the school, teacher, and curriculum more accessible to all. Parents in particular are better able to be involved in their children's education when they speak the language used for education, since they are better able to communicate with teachers about their children's progress and schoolwork, to provide support to their children at home, to bring their own local knowledge into the formal education environment, and to hold schools and teachers accountable. Evidence from Papua New Guinea, for example, shows that when the government established L1-based bilingual education in 1995, community demand for education increased significantly, leading to local development of materials and bringing the number of languages used in education to 400 by the year 2000 (Malone & Paraide, 2011). In Ghana, education provided to children in their home languages has similarly resulted in increased awareness among parents and the community of the importance of L1-based instruction in facilitating learning outcomes, in terms of both content knowledge and English-language learning (Casely-Hayford, Ghartey, & The SfL Internal Impact Assessment Team, 2007). When children's home language is used in schools, parents can also help their children with schoolwork, and perhaps learn L1 literacy along the way (Chimbutane, 2011).

8. Strengthens institutions and reduces likelihood for conflict

Providing children with access to high-quality education endows them with the skills and knowledge they need to gain employment and to positively contribute to their community's and country's overall well-being. This, in turn, helps to reduce social exclusion and poverty, thereby reducing the likelihood for social unrest and conflict. In contrast, children who are excluded from learning due to the language of instruction are less likely to gain vital literacy, numeracy and other skills, meaning they are more likely to experience social exclusion, which can in turn lead to weak institutions and poverty within a country. However, the existence of strong institutions—including education systems—in areas of high ethnolinguistic diversity has been shown to decrease the likelihood of war and slow economic growth (Easterly, 2001). Conversely, research has shown that high levels of ethnic and linguistic division significantly lead to weaker institutions and slower economic growth (Alesina, Devleeschauer, Easterly, Kurlat, & Wacziarg, 2003). Indeed, lack of appropriate language-in-education policies has actually led to violence: In Syria in 2004, for example, 30 people were killed and more than 160 were injured as a result of the Syrian government's attempt to ban the Kurdish language from schools. In China, monolingual education in Mandarin has contributed to the exclusion and dropout of Uyghur, Mongol, and Tibetan minority groups, which—coupled with other rights abuses—has fostered unrest in the affected regions (Pinnock, 2009a).

8. Improves internal education efficiency

A frequent argument against providing L1 instruction is the mistaken assumption that it "costs too much." However, analysis has shown that providing instruction to children in a language they understand is likely to be much more cost effective, due to the reduction in repetition, dropouts, and poor learning outcomes. A study of an L1-based education program in Mali, for example, found that the program cost about 27% less for a six-year primary cycle than for the traditional French-only model (World Bank, 2005). Another study in Guatemala estimated that the cost savings of bilingual education was $5 million per year because of a reduction in dropouts and repetition rates—an amount equal to the cost of primary education for 100,000 pupils (Patrinos & Velez, 2009).[10]

Even though a country may incur initial start-up costs associated with the production of materials in new languages, these are recovered in the long run due to improvements in efficiency. Although each country will have to conduct its own budgeting exercise to identify the costs—and savings—associated with providing instruction in familiar languages, analysis from Guatemala and Senegal estimates that the cost of producing local-language materials would be 1% of the education budget where orthographies and language development units already exist (Vawda & Patrinos, 1999). Other analysis indicated that immediate costs associated with the development of L1-based instruction would be covered by a 4- to 5-percent increase in a country's education budget, while long-term costs would be reduced due to improved internal efficiency (i.e., fewer students repeating and dropping out) (Heugh, 2011b).

Analysis by François Grin (2005), a specialist in language and the economy, showed that although some aspects of education provision in L1 may be "slightly more expensive" than provision of education in L2, the actual cost of "teaching and training would by and large cost the same, irrespective of the language in which it takes place" (Grin, 2005, p. 20, as quoted in Heugh, 2011b, p. 277). He concluded that because using children's L1 conferred significant advantages with respect to educational outcomes (higher achievement, less repetition, and lower dropouts, and increase in the number of years of schooling), this in turn would lead to a "higher stock of human capital," which is a "predictor of labour productivity, and hence of earnings" (Grin, 2005, pp. 20–21, as quoted in Heugh, 2011b, p. 278). Through analyzing the costs of various language-in-education models over a five-year period, he concluded there would be a savings of actual financial outlay to the system, plus greater longer-term benefits (Grin, 2005, p. 22, as cited in Heugh, 2011b, p. 279).

Given that the largest share of education sector budgets is generally teacher salaries and school infrastructure—costs that are not related to the language of instruction—providing schooling in languages that children understand well is not likely to significantly alter the overall education budget. Moreover, in a country such as Malawi, materials already exist that can be used for some languages, while other materials can be translated. Indeed, cost-effectiveness may improve as

[10] Another analysis of Guatemala's schools showed that the cost per grade 6 graduate of Spanish-medium schools was $3,077, while the cost for bilingual schools that provided instruction in familiar languages was $2,578. If applied nationwide, the estimated cost savings would have been more than $11 million (Walter, 2009, as cited in Pinnock, 2009a).

more children receive a quality education and are able to contribute to a country's economy via improved opportunities for further employment and greater contributions in the form of taxes. Moreover, literature from the health field has found that education reduces fertility rates, improves maternal health, and reduces infant mortality (UNESCO, 2011). In Malawi, 27% of women with no education knew that HIV transmission risks can be reduced by the mother taking drugs during pregnancy; for women with secondary education, the figure rose to 59%. This institutionalization of knowledge through education in turn reduces the burden on the state in terms of health care costs and reduced labor productivity.

Annex B. Language models

(Excerpted from USAID, 2012a)

There are several different types of language models, and accordingly, the efficacy of any particular language model depends largely on the context within which it is implemented. Thus, not all models are appropriate in all environments. The language model chosen for a particular system should be based on the country's education goals, existing conditions, evidence from research and best practices, and what is realistic and feasible to implement.

Below is a summary of several common models for language use in education. I**t is important to note, however, that these models are often modified and implemented differently in different contexts** (and even the name used for a given model may be different). Moreover, they cannot simply be imported from one context to another but must be analyzed and appropriated accordingly.

- **L1-based instruction** refers to a model in which children's L1, or mother tongue, is the LOI throughout most if not all levels of school. This is the most common language-of-instruction model used in much of the world (Europe, United States, Latin America, parts of Asia) and is highly successful in producing strong literacy and learning outcomes in general, along with excellent foreign language learning. The model allows children to learn in a familiar language, usually through tertiary level, while foreign languages are taught as subjects by specialist teachers.[11]
- **Immersion** refers to a model in which the language of instruction is solely an L2 or foreign language from the time a child enters school. This is the most common model implemented in much of sub-Saharan Africa, with very low learning outcomes. The model is often misapplied to the African context from very different environments in which it has been used in North America or Europe, based on the mistaken idea that children will learn a language if they learn *in* the language. Because instruction is provided primarily in a language that is not familiar to learners, with limited exposure to the language outside of school, this model is often referred to as "submersion" in the African context.
- **Early exit transitional** refers to a model in which instruction in L1 is provided for a few years before transitioning (usually very abruptly) to instruction in a foreign language (i.e., English or French) prior to the end of primary school. Early exit has been tried in several African countries, including Uganda, Kenya and Nigeria, among others, with very poor outcomes in terms of both L1 and L2 proficiency, as well as academic achievement. Recent evidence from the Kom-language program in Cameroon, for example, showed that three years of instruction in L1 was insufficient to adequately prepare learners for

[11] For example, in Sweden, education is provided in Swedish to the doctorate level, and English is taught as a subject. The same is true in many other European countries, even though the number of speakers of these languages is relatively small and the languages are not spoken very much internationally (i.e., Icelandic, Finnish, and Norwegian)—the number is even smaller than the number of speakers of many African languages (Hausa, Kiswahili, etc.).

effective transition to L2 instruction. Assessment over time showed that pupils' scores dropped significantly after they transitioned to English-only instruction in the fourth grade (Walter & Chuo, 2012). One major reason that early transition from using one language of instruction to another does not work is because learners have not acquired enough skills in their L1 to transfer them to L2 or a foreign language. Moreover, they have not yet acquired sufficient vocabulary and adequate skills in their L2 to learn academic content. Furthermore, an "early exit" from one language of instruction to another requires most primary teachers to either teach a foreign language or to teach in a foreign language (or both), creating a tremendous hurdle for good teaching, since teachers themselves may lack foreign language skills sufficient for either or both of these scenarios.

- **Late exit transitional** refers to a model in which the L1 is used as the LOI through the end of primary school (and possibly beyond). In some cases, the L1 is taught as a subject throughout secondary school. The model has better results than the early-exit transition model if implemented well. Evidence from Ethiopia suggests that the late-exit model is most effective in producing higher levels of learning outcomes than early exit models, with children who received instruction in L1 through grade 8 having higher learning outcomes than children who exited L1 instruction earlier (Heugh, Benson, Bogale, & Yohannes, 2007).
- In the **additive (maintenance) bilingual** model, children receive instruction in their L1 or familiar language while learning in an L2 is introduced gradually, first as a subject and then phased in as an additional MOI. The objective is to develop and maintain pupils' L1, while they develop their L2 proficiency, to ensure that the L1 is not lost and continues to support academic learning and improvement in L2.

Annex C. Language competencies and vocabulary thresholds

One of the most commonly used frameworks for measuring language competency is the Common European Framework Reference for Languages (CEFR) (Language Policy Unit, n.d.; Little, Goullier, & Hughes, 2011). The CEFR indicates a competency-based "threshold" level at which a language user has developed sufficient competencies to be an independent user of the language. These include:

A Basic User	B Independent User	C Proficient User
A1 Breakthrough or beginner **A2** Waystage or elementary	**B1** Threshold or intermediate **B2** Vantage or upper intermediate	**C1** Effective operational proficiency or advanced **C2** Mastery or proficiency

The minimal level necessary to function independently in the new language and learn through it is the B1 threshold or intermediate level. This level is important for bi/multilingual education as it can be expected that language users have sufficient knowledge and use of the additional language to use it as a medium of instruction. According to the CEFR, on the global scale the language user can:

- Understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc.
- Function in most situations likely to arise while traveling in an area where the language is spoken.
- Produce simple connected text on topics that are familiar or of personal interest.
- Describe experiences and events, dreams, hopes, and ambitions, and briefly give reasons and explanations for opinions and plans (Council of Europe, n.d., p. 24).

Research has shown that for students to learn a language, the teachers needs to at least have reached level B1, while the desired level for the teacher is C1 (Enever, Moon, & Ranan, 2009).

The competencies listed in the table are also linked to the number of words (or vocabulary) a child needs to know at that level. Researchers have found that different languages have different vocabulary sizes, and that the threshold for each language is different. For example, English-language learners must obtain a threshold level of about 3,000 words to be at the B1 level, while French and Greek require approximately 2,200 and 3,450 words, respectively (Milton, 2001). Research indicates that it can take four to five years of formal education for children to reach a level of vocabulary knowledge that would allow them to use the an L2 or FL language comfortably and to understand the content of their school books and teachers (Nation, 1990; Orosz, 2009). Therefore, when a new language is introduced before children have acquired the competencies and vocabulary that correspond with a given threshold, their learning outcomes significantly drop—and education is not successful.

A framework similar to CEFR could be helpful for assessing language competencies in multilingual African contexts.

Annex D. Exploring language goals in relation to LOI planning

Table D1 represents one approach (Benson, 2009) to assessing the goals of the education system vis-à-vis the language context and skills of those involved in providing and supporting education.

The hypothetical example presented in the table is common in many low-income country contexts such as those in sub-Saharan Africa, where learners speak an L1 at home but must learn in an L2/Lx/foreign language at school. Children typically enter school with high oral skills in the L1 but little or no prior exposure to the L2, yet the goal of the national education policy is for learners to quickly reach high levels of oral and written proficiency in L2, and little emphasis is placed on building a strong foundation in the L1. As a result, learners cannot gain the high levels of proficiency demanded by education policy or curricula, since they have little or no exposure to the L2 outside of school. Moreover, their teachers and school directors may have limited proficiency in the L2 themselves, and they often lack knowledge of appropriate pedagogical approaches to teaching the L2 as a subject. In this situation, use of the L2 as a medium of instruction will not result in anyone learning the L2 well. Instead, learners' (and teachers') L1s should be used to teach literacy and academic content, and other strategies should be found (such as using specialist teachers) to teach the L2 appropriately.

Table D1. Education goals vis-à-vis linguistic proficiency in context

	L1 proficiency		L2/Lx/FL proficiency	
	Listening/ Speaking	**Reading/ Writing**	**Listening/ Speaking**	**Reading/ Writing**
Learners entering school	High	---	---	---
Families and communities	High	---	Low	---
Teachers and school directors	High	Low	Medium	Low
Teacher educators and support staff	*Varied*	*Varied*	High	Medium
Common education sector language goals:	*Not stated*	*Not stated*	High	High
Goals based on multilingual education research:	**High**	**High**	**Medium**	**Medium**

Using a tool like this one may help education planners to carefully examine learners' existing language skills, as well as those of available human resources. On this basis, they can better identify effective and feasible approaches to educational language use, building on existing human and linguistic resources and planning for the future in more pedagogically effective ways.

Rather than focusing teaching and learning on learning a foreign language, as in the example above, an education system would be more likely to achieve its learning goals by focusing on how children can best learn curricular content. Providing opportunities for children to learn a national or foreign language may be an integral part of preparing children to lead productive lives in their communities, but this must not become the sole focus of the system at the expense of providing students with the opportunity to learn subject content.

Annex E. Planning for language use in education: Illustrative timeline and activities

	Short term (0–6 months)	Medium term (6–18 months)	Long term (18 months+)
General planning	• Conduct situational analysis and gather data regarding languages spoken in specific geographic areas, proficiency levels, learning outcomes, and other characteristics of the language and learning environment. • Gather information on official LOI policies; language and teaching practices at the school level; instructional resources available in different languages; stakeholder attitudes and beliefs about language; previous efforts to provide L1-based instruction; and results from recent reading and learning assessments. • Review research on language development, literacy acquisition, and learning and provide information to relevant stakeholders to analyze vis-à-vis country context. • Convene a senior-level working group to review overall situation analysis.	• With stakeholder group, review and discuss factors to consider with regard to planning for language use in education. • Identify instructional approach for using language in education based on research, contextual factors, and conditions necessary for success. • Identify strategies for developing, promoting, and/or ratifying a language policy and/or plan. Identify key stakeholders who are able and willing to guide the process. • Develop (or revise) a *plan* for language use in education. • Develop (or revise) official *policy* for language use in education (if deemed necessary and feasible). • Conduct stakeholder advocacy and facilitate the process for policy and/or language plan ratification.	• Monitor changes in context, such as languages spoken at schools. • Monitor, evaluate, and—as needed—modify the plan for language use in education. • Continue to conduct stakeholder advocacy and communication, including dissemination of results and effects of language plan on education access, quality, and outcomes.
Language mapping, standardi-zation, and selection	• Develop scope of work for language mapping. • Conduct language-mapping exercise. • Conduct school-mapping exercise. • Develop and administer language assessments in a sample of schools. • Identify which languages spoken in the country have an agreed upon/standardized writing system and/or orthography, and which do not.	• Establish transparent criteria and process for identifying languages to be used for instruction in the short to long term, based on the outcomes of the language-mapping exercise. • Select languages and dialects to be used for instruction based on identified criteria and process. • Develop, standardize, and harmonize orthographies for languages as prioritized by a consultative committee.	• Review language maps every year, or more, depending on the changing nature of the context (for example, school-specific information may need to be updated annually to plan for materials distribution, whereas regional-level information may not).

	Short term (0–6 months)	Medium term (6–18 months)	Long term (18 months+)
	• Identify support for the development and use of identified languages as languages of instruction. • Carry out language standardization process as necessary.		
Curriculum and materials development	• Review existing teaching and learning materials to identify what is available (by subject, language, grade level, type, etc.) and where gaps exist. • Develop timeline and budget for developing the materials. • Identify language, reading, and other technical experts to develop and/or modify curriculum and teaching and learning materials.	• Develop teaching and learning materials for the languages that will be used in the classroom. • Identify and train writers. • Develop performance standards for each target language. • Pilot test materials early on in the process to identify any changes needed. • Revise as necessary before large-scale implementation.	• Develop curriculum and materials for additional languages. • Involve local publishers and linguists. • Identify strategies for increasing the amount of time available in the curriculum to teach reading, languages, and curriculum content.
Teacher qualifications, training and placement	• Consult with faculty from teacher training colleges and universities, teacher unions, and teachers to obtain their input on policies, plans, and practices for language use in education, and the need for alignment across pre- and in-service training. • Take stock of current teacher training policies and practices, qualifications for teaching, and teacher placement vis-à-vis language issues.	• Develop pre-service and in-service teacher education curriculum and programs that align with plans for language use in education. Such alignment would including preparing teachers to provide appropriate instruction in target languages and instruction in effective methodologies for L1- and L2-based instruction, teaching in a bilingual or multilingual context, etc. • Develop materials for teacher training in the languages in which teachers will be teaching. • Train teacher educators in instructional approaches to be used, curriculum, and materials. • Train education officials in aspects of L1 instruction, L2/Lx language learning, and reading to ensure they can provide in-service support to teachers “buy in” to the language plan.	• Provide teacher pre- and in-service training on applicable language-related issues, such as: teaching reading in specific languages; teaching curriculum content in specific languages); teaching certain languages as L2 or Lx; teaching in a bilingual environment. • Provide instructional support as needed in the languages in which teachers will be teaching. (This may require assessing teachers in the languages they are teaching.) • Recruit and place teachers in schools according to their proficiency in the appropriate languages. • Use assistant teachers or other personnel to help meet needs for speakers of certain languages. Note: Short- and long-term plans for

	Short term (0–6 months)	Medium term (6–18 months)	Long term (18 months+)
		• Modify/develop teacher recruitment and placement policies, strategies, and practices that align with the plan for language use in education.	aligning teacher placement with learner needs will likely be needed in contexts where many teachers do not speak the languages of their learners.
Assessment and evaluation	• Review exams used to assess learner performance. Identify what will need to be developed to reflect changes in language-of-instruction policies and practices. • Develop guidelines for assessing reading and language skills.	• Train teachers in assessment practices. • Develop learning assessments in the languages of instruction. • Pilot the exams and modify as needed.	• Collect data on pupils' and teachers' levels of proficiency in the languages used in the classroom. • Review data over time to identify performance thresholds that can be used to evaluate knowledge levels.
Stakeholder engagement, advocacy, and support	• Identify and engage relevant and diverse stakeholders. • Involve parents and community members in developing and implementing the language plan for education.	• Conduct an advocacy and awareness-raising campaign for different stakeholders. • Develop strategies to increase and sustain parental and teacher support for the language plan/policy.	• Continue to involve all stakeholders in decisions regarding language use in education and to solicit their support.
Monitoring and evalua-tion (M&E)	• Develop a plan for monitoring and evaluating the effectiveness of all aspects of the language plan for education.	• Use M&E results to inform continued planning. Make adjustments as needed to instructional approach, curriculum and materials, teacher training, teacher deployment, etc.	

Annex F. Country situational analysis worksheet for planning for language use in education

Country: _____								
This worksheet can be used to conduct a situational analysis and consolidate information needed to guide planning. It should be adapted as appropriate for the geographic distinctions and languages in the country. Information gaps in the worksheet can be used to identify areas for which information needs to be gathered to make informed decisions.								
Part 1: General information	**Notes/Data Source**							
Existence of policies related to language use in the country (specify details and obtain copies; may include national policies, constitutional references, or other documentation)								
Existence of guidelines or other working documents for language use in schools								
Previous experience within the country providing L1-based instruction (formal/nonformal)								
Part 2: Language and education context	**Notes/Data Source**	**Lang 1**	**Lang 2**	**Lang 3**	**Lang 4**	**Lang 5**	**Lang 6**	**Lang 7**
A. Learning outcomes data	Report outcomes by language and/or region	Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
National								
Region 1								
Region 2								
Region 3, Etc.								
B. % of population using language as L1	Consult updated language maps. Indicate languages/regions with large out-of-school populations.	Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
National								
Region 1								
Region 2								
Region 3, Etc.								

Region 3, Etc.								
C. % of population using language as L2/Lx	Consult updated language maps	Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
National								
Region 1								
Region 2								
Region 3, Etc.								
D. % of pupils starting school who speak language as L1	To obtain accurate information on proficiency levels of young children, (may differ from adults)	Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
Region/District/School 1	School-level data will be necessary for planning (book distribution, teacher placement, etc.)							
Region/District/School 2								
Region/District/School 3, etc.								
E. % of pupils starting school who speak language as L2		Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
Region/District/School 1								
Region/District/School 2								
Region/District/School 3, Etc.								
F. Language/orthography standardization and development		Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
Language has an agreed-upon orthography								
Language reference tools available (dictionaries, grammar books, etc.)								
Existence of language, linguistic and cultural groups/institutions, and individuals to support language standardization								
Existence of language "board" or other entity to review/harmonize/standardize/approve orthography								

G. Curriculum and materials	Break down by language and geographic area	Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
Existence of curriculum and standards for teaching language as L1								
Amount of instructional time allotted for teaching L1 as subject	Conduct research to identify amount of instructional time available in practice							
Instructional materials for teaching reading/literacy in L1 available and appropriate	Obtain teacher guides, pupil primers, storybooks, etc.; analyze quality and appropriateness for grade levels							
Existence of curriculum and standards for teaching language as L2/Lx								
Amount of instructional time allotted for teaching L2 as subject	Conduct research to identify amount of instructional time available in practice							
Instructional materials for teaching reading/literacy in L2/Lx available and appropriate	Obtain teacher guides, pupil primers, storybooks, etc.; analyze quality and appropriateness for grade levels							
Existence of curriculum and standards for teaching subjects in L1								
Instructional materials for teaching curricular subjects in L1 available and appropriate	Break down by math, science, social studies, etc. by grade							
H. Assessment		Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
School promotion/entrance exams available *in* designated language								
School promotion/entrance exams available *for* the designated language; appropriate to whether language is students' L1 or L2								
National learning assessments available *in* designated language								
National learning assessments available *for* the designated language; appropriate to whether language is students' L1 or L2								

I. Teacher language proficiency	Break down by geographic area (and eventually by school) and compare to % of pupils who speak the language as L1 to identify any discrepancies	Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
% of teachers who speak the designated language as L1								
% of teachers who speak the language as L2/Lx								
Teacher level of proficiency (reading/writing) in designated language	Can be gathered through self-reported data, and/or assessment of sample of teachers to provide snapshot for a particular area							
J. Teacher language proficiency and qualifications		Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
% of teachers who have been trained to teach children to read in the designated language (as L1)								
% of teachers who have been trained to teach designated language as subject (L2/Lx)								
% of teachers who have been trained to teach curricular subjects in the designated language								
Availability of teacher training materials in the designated language								
K. Teacher training		Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
Curricula for pre- and in-service training available in designated languages	Curriculum for training teachers to teach IN the language; existence of training materials for building teacher proficiency also may be needed							
Teacher training materials available in designated languages								
Teacher training exams provided in designated language								
% of teacher trainers/faculty proficient in designated languages								

L. Teacher recruitment and placement		Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
Teacher recruitment policies/practices consider language proficiency, especially in the case of languages underrepresented in the teacher workforce								
Teacher placement policies/practices consider language proficiency								
M. Language plan stakeholders		Lang 1	Lang 2	Lang 3	Lang 4	Lang 5	Lang 6	Lang 7
Attitudes and beliefs about designated languages by different stakeholders								
Existence of different stakeholders needed for language plan development and implementation	See list of stakeholders in Section 3 of text; info may not necessarily be organized by language but by stakeholder group							
Knowledge, attitudes, and beliefs of various stakeholders with regard to L1-based instruction								
Attitudes and beliefs of various stakeholders with regard to L1-based instruction								
Existence of language/cultural groups to support the development and use of the language for instruction								
Existence of groups with previous experience using language for formal or nonformal instruction with children or adults								

Annex G. Resources for planning for language use in education

Resource	Summary
General information / multipurpose resources	
Ball, J. (2011). ***Enhancing learning of children from diverse language backgrounds: Mother-tongue-based bilingual or multilingual education in the early years*.** Paris: UNESCO. http://unesdoc.unesco.org/images/0021/002122/212270e.pdf	Scholarly literature review of mother-tongue-based (MTB) bilingual or multilingual education (MLE) for children starting in early childhood. Provides typology of key components of effective bilingual and multilingual education programs. (87 pp)
Ouane, A., & Glanz, C. (Eds.). (2011). ***Optimising learning, education and publishing in Africa: The language factor*.** *A review and analysis of theory and practice in mother-tongue and bilingual education in sub-Saharan Africa.* Hamburg: UNESCO Institute for Lifelong Learning; Tunis: Association for the Development of Education in Africa (ADEA). http://unesdoc.unesco.org/images/0021/002126/212602e.pdf	Presents the results of comprehensive research that assesses the experiences of mother-tongue and bilingual education programs in in recent years. Surveys scientific and empirical evidence pertaining to language use and its implications on the quality of MLE efforts in 25 African countries. Critiques educational programs and related language policies. (364 pp)
Pinnock, H. (2009a). ***Language and education: The missing link. How the language used in schools threatens the achievement of Education for All*.** London, UK: Save the Children and CfBT Education Trust. http://www.unesco.org/education/EFAWG2009/LanguageEducation.pdf	Reviews investment choices for national governments in linguistically diverse countries. Identifies major challenges to providing quality multilingual basic education. (64 pp)
Save the Children. (2010). ***Language and children's education*** [Policy brief]. London, UK: Save the Children. http://www.savethechildren.org.uk/sites/default/files/docs/language_policy_brief_SC_UK_final_(2)_1.pdf	Summary of key statistics, research, and guidance on language use in education, for advocacy. (4 pp)
MTB-MLE Network website http://mlenetwork.org	Repository for resources, guides and other materials related to L1-based multilingual education.
Planning and implementation	
Malone, S. E. (2010). ***Planning mother tongue-based education programs in minority language communities***. Asia Area, SIL International. http://www.sil.org/system/files/reapdata/70/48/16/70481663076073369953923515282904485 31/MLE_Program_Planning_manual.pdf	A resource manual meant to support those implementing mother tongue-based education programs in a minority language context. Topics include situational analysis, orthography development, curriculum and instructional materials, mobilization, program coordination, and documentation and evaluation. (98 pp)
Pinnock, H. (2009b). ***Steps towards learning: A guide to overcoming language barriers in children's education.*** London, UK: Save the Children. http://www.savethechildren.org.uk/resources/online-library/steps-towards-learning-guide-overcoming-language-barriers-children%E2%80%99s	Introduces foundations and principles drawn from worldwide MLE research and practice. Offers evidence, arguments, and practical steps for structuring the language of schooling to help all children succeed. One chapter provides information to teachers on how to effectively use a child's mother tongue in instruction and to view the mother tongue as a means to achieving learning goals. (37 pp)

Resource	Summary
Pinnock, H. (2011). ***Reflecting language diversity in children's schooling: Moving from "Why multilingual education" to "How?"*** Reading, Berkshire, UK: CfBT Education Trust and Save the Children. http://cdn.cfbt.com/~/media/cfbtcorporate/files/research/2009/r-reflecting-language-diversity-in-childrens-schooling-2009.pdf	Illustrates a range of issues and activities associated with scaling up pilot MTB-MLE projects. Highlights the importance and difficulties of securing necessary central government buy-in. (33 pp)
The African Linguistic Network http://theafricanlinguistnetwork.com/	This network's website allows program planners and implementers to post jobs and find linguists and language experts.
Country-specific organizations and institutions (such as university language departments, language associations or other groups, and religious institutions)	Provide expertise in support of language use planning, including contextual information, resources, and assistance throughout the planning and implementation process.
Education Data for Decision Making **(EdData II) project website** www.eddataglobal.org	The USAID EdData II website compiles early grade reading and mathematics results—both data sets and analysis reports—which can be used to inform stakeholders of the state of learning outcomes in various languages.
SIL LEAD http://www.sil-lead.org	This organization provides resources, including documents, software, and human resources to support language planning. SIL LEAD's linguists and language experts can assist in orthography development and standardization, materials development, and literacy education.
Uwezo website http://www.uwezo.net	Hosts assessment data for Kenya, Tanzania, and Uganda.
Language mapping, standardization, and selection	
Schroeder, L. (2010). ***The Bantu orthography manual*** (Rev. ed). SIL E-Books 9. http://www.sil.org/system/files/reapdata/87/53/88/87538832212833420772710640253037052722/52716_BantuOrthographyManual.pdf	Provides guidance on how to develop an orthography in a Bantu language. The manual also contains information on orthography development that are applicable to any language.
Vawda, A. Y., & Patrinos, H. A. (1999). **Producing educational materials in local languages: costs from Guatemala and Senegal**. *International Journal of Educational Development, 19,* 287–299. http://www.sciencedirect.com/science/article/pii/S0738059399000279	Examines production costs of local-language materials, budgetary implications of such programs, and cost-saving strategies that have and can be usefully employed in Guatemala and Senegal. The analysis and lessons can be used to inform language planning for education in other countries. (13 pp)
Ethnologue https://www.ethnologue.com	This website provides information on the world's languages, language maps, and links to additional resources about specific languages and countries.
In-country organizations and resources (such as Ministry of Education curriculum development units, language specialists and linguists, and language academies/institutions)	Country-specific official bodies are sometimes responsible for orthography approval, official translations of government documents, and other functions related to language use planning for education.
The **Open Language Archives Community (OLAC)** http://www.language-archives.org	A digital repository of resources; locate documents and information by typing keywords in the "search" field.

Resource	Summary
ScriptSource www.scriptsource.org	This website compiles information on the world's writing systems and the need to support them in the computing realm.
World Atlas of Language Structures (WALS) http://wals.info/	Large database of structural (phonological, grammatical, lexical) properties of languages.
Curriculum and materials development	
Malone, S. (2013). ***Resource for developing graded reading materials for mother tongue-based education programs*** (4th ed.). Dallas, TX: SIL International. http://www.sil.org/sites/default/files/files/resource_for_developing_graded_reading_materials_2013.pdf	Describes a process and puts forth guidelines for developing reading materials in local languages, depending on the stages of literacy. (21 pp)
Robledo, A. (2015, March). ***Developing and producing reading materials.*** Paper presented at the annual conference of the Comparative and International Education Society (CIES), Washington, DC.	Provides guidance on key aspects of the materials development process.
Bloom http://bloomlibrary.org	This library, supported by SIL LEAD, provides simple, free templates and shell books to facilitate the production of reading materials and other education resources in multiple languages. The Bloom Library contains books that have Creative Commons licenses and can be adapted.
blueTree Group http://www.booksfortheother90percent.com/Welcome/Welcome.html	This organization provides technical assistance on the book chain process, including procurement specifications, printing, and support to local printers, among other topics.
Education Data for Decision Making **(EdData II) project website** http://www.eddataglobal.org	Contains a repository of materials (teachers' guides, pupil books, etc.) that have been used to teach reading in the early primary grades in several African countries.
iLoominate http://iloominate.org	A free app (for use on Android devices) for producing children's books on- or offline.
Mango Tree (Uganda) www.mangotreeuganda.org	This organization produces a variety of reading and learning materials in multiple languages, as well as sells them online.
PrimerPro http://www.sil.org/resources/software_fonts/primerpro	Freeware that analyzes language (from a corpus of uploaded text) and helps facilitate the development of reading materials.
SIL http://www.sil.org/resources/software_fonts http://scripts.sil.org/cms/scripts/page.php?cat_id=Home)	SIL's website hosts a variety of software programs, fonts, and information on scripts.
SynPhony http://call.canil.ca/index.html	Easy-to-use software that analyzes language (from a corpus of uploaded text) and produces controlled words lists (among other features) to aid in the development of reading materials.
Advocacy and policy planning	

Resource	Summary
Mother Tongue-Based–Multilingual Education (MTB-MLE) Network and RTI International. (2011). ***Improving learning outcomes through mother tongue-based education*** [Brochure]. Research Triangle Park, NC: MTB-MLE Network and RTI. https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=326	Overview of the benefits of mother tongue-based education, as well as key considerations for developing L1-based bilingual and multilingual education programs. The document answers frequently asked questions about language of instruction and contains useful "talking points" for advocacy around L1-based instruction. (4 pp)
Ouane, A., & Glanz, C. (2010). ***Why and how Africa should invest in African languages and multilingual education. An evidence- and practice-based policy brief.*** Hamburg: UNESCO Institute for Lifelong Learning (UIL). http://unesdoc.unesco.org/images/0018/001886/188642e.pdf	Addresses several core questions about MTB-MLE in sub-Saharan Africa, including the impact of MTB-MLE on social and economic development, the potential of African languages for education, how to handle the reality of multilingualism effectively for lifelong learning for all, why teaching in the mother tongue is beneficial for students' performance, what kind of language models work best in Africa, is MTB-MLE affordable, and under what conditions do parents and teachers support mother-tongue-based education. (73 pp)
UNESCO Bangkok. (2007). ***Advocacy kit for promoting multilingual education: Including the excluded.*** Bangkok: UNESCO Bangkok. http://unesdoc.unesco.org/images/0015/001521/152198e.pdf	An overview of literacy issues in the multilingual contexts of Asia. Program planners' booklet includes ideas for developing low-cost and effective materials for MLE programs and training teachers for MLE programs. A separate booklet summarizes the status of language and education policy for each country in Asia region. (109 pp)
UNESCO Bangkok. (2008). ***Improving the quality of mother tongue-based literacy and learning: Case studies from Asia, Africa, and South America***. Bangkok: UNESCO Bangkok. http://unesdoc.unesco.org/images/0017/001777/177738e.pdf	Summary of mother-tongue-based education programs in Asia (Afghanistan, Bangladesh, Cambodia, China, India, Indonesia, Lao People's Democratic Republic, Malaysia, Nepal, Philippines, Thailand, Vietnam), Africa (Burkina Faso, Cameroon, Ghana, South Africa, Tanzania, Uganda), and Boivia. Addresses frequently asked questions about mother-tongue-based education. (205 pp)
UNESCO. (2010). ***Policy guide on the integration of African languages and cultures into education systems****, amended and adopted by the ministers of education at the African Conference on Integration of African Languages and Cultures into Education, Ougadougou, Burkina Faso, 20–22 January 2010.* Tunis: Association for the Development of Education in Africa (ADEA); Hamburg: UNESCO Institute for Lifelong Learning. http://uil.unesco.org/fileadmin/keydocuments/Africa/en/policy_guide_sep_web_en.pdf	Urges all stakeholders to uphold the conference's recommendation that multilingual and multicultural education should be the default approach to basic education in African countries. (12 pp)
The **Philippines Department of Education (DepEd)** http://www.deped.gov.ph/sites/default/files/order/2013/DO_s2013_43.pdf http://www.deped.gov.ph/orders/do-12-s-2015	The Philippines DepEd has produced various documents outlining the need for teachers to be proficient in mother tongue-based multilingual education instructional practices to be able to implement the country's curriculum and learner needs.