Survey of Children's Reading Materials in African Languages in Eleven Countries – Final Report

EdData II: Data for Education Research and Programming (DERP) in Africa

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Survey of Children's Reading Materials in African Languages in Eleven Countries – Final Report

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Abbreviations

ACALAN	African Academy of Languages
ACOTBA-SUBO	Association Congolaise pour la Traduction de la Bible et l'Alphabetisation—Sukia Boyinga (Congolese Association for Bible Translation and Literacy—Conquer Ignorance) (DRC)
AFD	Agence Française de Développement (French Development Agency)
ARED	Associates in Research & Education for Development
B&W	black and white
CDC	Curriculum Development Centre (Zambia)
CDF	Congolese Franc
CELTA	Centre de Linguistique Théorique et Appliquée (Theoretical and Applied Linguistics Centre) (DRC)
CFA	Central African Franc
CHAKITA	Chama cha Kiswahili cha Taifa (National Kiswahili Association)
CIDA	Canadian International Development Agency
CLAD	Centre de Linguistique Appliquée de Dakar
CRP	Centre de Recherches Pedagogiques (Pedagogical Research Centre) (DRC)
CWPM	Correct Words Per Minute
DERP	Data for Education Research and Programming
DFAT	Australian Government's Department of Foreign Affairs and Trade
DFID	United Kingdom's Department for International Development
DRC	Democratic Republic of the Congo
EdData II	Education Data for Decision-Making
EFA	Education for All (campaign)
EGR	early grade reading
EGRA	Early Grade Reading Assessment
ELAN	Education en Langues Africaines (Education in African Languages)
EMiLe	Education Multilingue (Senegal)
FBO	faith-based organization
GER	gross enrollment rate
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Society for International Cooperation)
GPE	Global Partnership for Education
ISBN	International Standard Book Number
ISO	International Organization for Standardization
KES	Kenyan Shilling
KfW	Kreditanstalt für Wiederaufbau (a German government-owned development bank)
KNLS	Kenya National Library Service
L1	first language
L2	second language
LOI	language of instruction
LWC	language of wider communication
MOE	Ministry of Education
MOES	Ministry of Education and Sports
MoEST	Ministry of Education, Science, and Technology

MoEVT	Ministry of Education and Vocational Training (Tanzania)
MCDGC	Ministry of Community Development, Gender, and Children (Tanzania)
NCDC	National Curriculum Development Centre (Uganda)
NELIMO	Núcleo de Estudo de Línguas Moçambicanas (Language Study Core Mozambican)
NERDC	Nigerian Educational Research and Development Council
NGN	Nigerian Naira
NGO	non-governmental organization
Norad	Norwegian Agency for Development Cooperation
OIF	Organisation Internationale de la Francophonie (International Organisation of the Francophonie)
OMEL	Organization Maliene des Editeurs
ONECS	National Office of the Catholic Teaching of Senegal
PALME	Partenariat pour l'Amélioration de la Lecture et des Mathématiques à l'Ecole Elémentaire (Senegal)
PHARE	Programme Harmonisé d'Appui au Renforcement de l'Education (Mali USAID/PHARE Program)
PISE	Programme d'Investissement Sectoriel de l'Education (Sector Investment Programme of Education)
PRIMR	Primary Math and Reading
PRODEC	Programme Décennal de Développement de l'Education (10-Year Programme of Educational Development)
READ	Reading for Ethiopia's Achievement Developed (Technical Assistance project)
RRP	Rivers Readers Project (Nigeria)
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SAIDE	South African Institute for Distance Education
SNNPR	Southern Nations, Nationalities, and Peoples' Region
STELLAR	STudents Empowered through Language, Literacy, and ARithmetic
SYPP	Six Year Primary Project (Nigeria)
TEACH	Transforming Education for Adults and Children in the Hinterland
TIE	Tanzania Institute of Education
Uganda SHRP	Uganda School Health and Reading Program
UGX	Ugandan shilling
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
USD	U.S. dollar
UUGI	Ukuria wa Urumwe wa Gikuyu (Gikuyu Language Committee)
WAEC	West African Examination Council
wpp	words per page

Executive Summary

Background

Reading is the foundational skill for all other learning. Children who fail to master basic reading skills in early primary grades will struggle to "read to learn" in late primary grades and are at an increased risk of falling behind in school or dropping out[1]. However, learning assessments have found that half of primary school-age children in sub-Saharan Africa are not achieving minimum learning standards by Primary Grade 4[2]. In some regions, most cannot even read a single word by the end of primary school[3,4].

The dearth of reading materials in classrooms, especially in languages that are familiar to students, makes it very difficult to address the critical deficit of basic reading skills. Children benefit from learning to read in a language they speak and understand because they can build on their existing oral language and vocabulary skills[5,6,7,8,9]. Unfortunately, reading materials in African languages that are appropriate for children in the early grades are critically scarce.

Increased supply and access to early grade reading (EGR) materials in African languages are needed urgently if more children are to learn to read in the early primary grades. The U.S. Agency for International Development (USAID) and other development partners have created the Global Book Fund, which will support a series of approaches and interventions aimed at transforming book development, provision, and distribution so that all children have the opportunity to learn to read with appropriate materials. One specific intervention is the Global

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[1] Gove, A., & Cvelich, P. (2011). *Early reading: Igniting education for all. A report by the early grade learning community of practice*. Revised edition. Retrieved from https://www.rti.org/pubs/early-reading-report-revised.pdf

[2] UNESCO. (2014). *Education for All (EFA) Global Monitoring Report 2013/2014: Teaching and learning: Achieving quality for all*. Paris, France: UNESCO. Retrieved from http://www.uis.unesco.org/Library/Documents/gmr-2013-14-teaching-and-learning-education-for-all-2014-en.pdf

[3] RTI International. (2011). *Assessing Early Grade Reading Skills in Africa*. Retrieved from https://www.rti.org/brochures/eddata_ii_egra_africa.pdf

[4] RTI International. (2014). *Nigeria Reading and Access Research Activity: Results of the 2014 Hausa and English Early Grade Reading Assessments (EGRAs) in government primary schools and IQTE centers in Jigawa, Kaduna, Kano, and Katsina States*. Retrieved from https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=746

[5] Abadzi, H. (2006). *Efficient learning for the poor: Insights from the frontier of cognitive neuroscience*. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/7023/366190Efficien101OFFICIAL0USE0ONLY1.pdf?sequence=1

[6] Ball, J. (2011). *Enhancing learning of children from diverse language backgrounds: Mother tongue-based bilingual or multilingual education in the early years*. Retrieved from http://unesdoc.unesco.org/images/0021/002122/212270e.pdf

[7] Bender, P., Dutcher, N., Klaus, D., Shore, J., & Tesar, C. (2005). *Education notes: In their own language... education for all*. Retrieved from http://siteresources.worldbank.org/EDUCATION/Resources/Education-Notes/EdNotes_Lang_of_Instruct.pdf

[8] 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*. Retrieved from http://unesdoc.unesco.org/images/0021/002126/212602e.pdf

[9] RTI International. (2015). *Report on language of instruction in Senegal*. Retrieved from https://www.eddataglobal.org/documents/index.cfm?fuseaction=pubDetail&ID=796

Reading Repository, which will serve as a global catalogue of existing materials and facilitate their sharing, adaptation, and printing on large or small scales[10].

Filling the gaps in the availability of reading materials requires knowledge of the current supply of titles in African languages for early grade readers. Unfortunately, reliable statistics on the African book sector are scarce[11], as are inventories of children's titles that cover all aspects needed to fully understand the supply and quality of existing titles. This report aims to contribute to the knowledge in this area.

Objectives

The purpose of the DERP Survey of Children's Reading Materials in African Languages in Eleven Countries [Reading Materials Survey] was to develop an approach to collecting information on the available supply of EGR materials. The approach included the development of a questionnaire and a protocol for data collection. The survey results will serve primarily to inform the Global Reading Repository by providing a detailed description of the current supply of EGR materials in African languages in the following 11 countries in sub-Saharan Africa: the Democratic Republic of the Congo (DRC), Ethiopia, Kenya, Malawi, Mali, Mozambique, Nigeria, Senegal, Tanzania, Uganda, and Zambia.

The survey had four main research objectives:

1. **Describe the availability of titles in African languages for the early primary grades** in terms of language and book type (textbooks or other reading materials).

2. **Review the usefulness of available titles for reading development** in terms of pedagogical utility, reading level, and the cultural relevance, age appropriateness, and social inclusivity of their contents.

3. **Assess the feasibility of using, adapting, and reproducing available titles** based on their copyright status and current availability in digital format.

4. **Describe the general landscape of the production of EGR materials in African languages**, including the types of organizations producing titles, the number of titles produced per decade since the 1960s, and market prices.

In addition, this study reviewed language in education policies in the 11 sampled countries, comparing the policy on paper against its implementation on the ground, when empirical data were available. Because the formal education sector can drive a large percentage of the demand for educational materials, information on the use of African languages in education can serve to explain the market dynamics that affect the availability of EGR materials in sub-Saharan Africa.

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[10] All Children Reading: A Grand Challenge for Development. (2014, March 17–18). *Global reading materials repository ideation meeting report*. Washington, DC: All Children Reading: USAID.
[11] Diallo, Y.S. (2011). Publications in African languages and the development of bilingial education. In A. Ouane & C. Glanz (Eds.), *Optimising learning, education, and publishing in Africa: The language factor* (pp. 291–309). Retreived from unesco.org/images/0021/002126/212602e.pdf

Methodology

The DERP Reading Materials Survey focused on materials in African languages relevant for the early primary level (roughly kindergarten through Primary Grade 3). The target content for this survey included textbooks, "supplementary" reading materials (e.g., decodable and leveled texts and fiction and non-fiction texts), and other materials that support EGR instruction, such as teacher manuals and dictionaries. The survey focused on materials written in African languages, although titles in European languages were included if the title was a shell book[12], a bilingual publication, or a manual or reference book that served to support EGR instruction in African languages.

The survey instrument, or questionnaire, was originally developed for the DERP Reading Materials Survey and is available in English and French. It comprises a total of 56 questions and was applied to each individual title in the sample. A digital version of the instrument was built in Tangerine®, a software application for collecting survey data based on open-source code. Data collection was conducted on tablets.

Data collection occurred over one month in early 2015 and was led by a team of Local Consultants in each country. The sampling strategy was to directly contact stakeholders in each country that could be expected to have produced materials for EGR, such as the Ministry of Education (MOE), commercial publishers, international development organizations and bilateral donors, NGOs, faith-based organizations (FBOs), national libraries, digital libraries, and local language commissions. An open invitation to participate in the survey was broadcast through national newspapers and radio stations, and a public information session was held in each capital city.

The data collection effort was primarily concentrated in the capital cities, where most publishers, government agencies, bilateral donors, and NGOs are based. Organizations that could not directly submit their materials to the data collection team could enter information on titles through a web version of the questionnaire created specifically for this purpose. Regions outside the capital were also targeted, although not all regions could be reached because of inaccessibility, security concerns, or time constraints. As a result of these efforts, the survey gathered information on a total of 5,919 titles within the time allotted for data collection.

Overview of Findings

The analysis of the survey data was informed by reviewing the language in education policy in each country. The table below summarizes the policy on paper (Grades 1–12) and compares it against the fidelity of implementation (final column on the right).

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[12] Shell books are books intended and authorized to be adapted into multiple languages and are available in a "shell", or digital template, that simplifies the book-making process.

Country	Grade												Implementation
	1	2	3	4	5	6	7	8	9	10	11	12	
DRC	Kikongo, Lingala, Kiswahili, Tshiluba, or a "language of the locality"						French						Data not available
Ethiopia	The "nationality" language chosen by each regional state							English					Wide implementation with variations by region
Kenya	The "language of the catchment area" or Kiswahili (urban areas)			English									Implementation varies by region but is generally low.
Malawi	English												Not widely implemented. Chichewa is the language of instruction (LOI) in lower primary grades.
Mali	One of the 13 national languages	One of the 13 national languages (50%) and French (50%)		French									Partially implemented
Mozambique	One of 16 Mozambican languages and Portuguese						Portuguese						Portuguese is sole LOI in urban schools; partial implementation of bilingual model
Nigeria	"… Initially the mother tongue or language of the immediate community"		"… at a later stage, English" (the timing of the transition was not specified)				English						Partially implemented; English used widely at all levels
Senegal	A national language (bilingually with French)		French (the timing of the transition was not specified)				French						Not widely implemented
Tanzania	Kiswahili						English (possibly Kiswahili)						Widely implemented
Uganda	"Mother tongue"			English									Widely implemented
Zambia	Nyanja, Bemba, Lozi, Tonga, Kaonde, Luvale, or Lunda			English									Policy is new (2013); data not available

Based on data from the 5,919 titles surveyed, the main findings are as follows:

1. **The total number of African languages in which materials were found (200) exceeds the number of African languages with well-developed orthographies (186[13]).**

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[13] A total of 2,041 living languages (languages currently in use among the population) exist in sub-Saharan Africa. Of these, 1,335 languages in the region have not yet been developed in written form or are in danger of becoming extinct, and 520 are in the initial stages of language development but lack widespread literature. Therefore, only 186 languages have well-established orthographies, grammars, and bodies of literature and are "used and sustained by

2. However, there is a paucity of titles in many languages.

Although materials in 200 African languages were found, most languages are represented by very few titles: 40 languages have only one title each, 42 languages have between two and five titles, and 59 languages have between six and 20 titles. The three languages with the largest number of published titles also have relatively large speaker populations: Kiswahili (808 titles for an estimated 100 million speakers across several countries), Chichewa/Nyanja (509 titles for an estimated 10 million speakers in Malawi, Zambia, and Mozambique), and Amharic (366 titles for an estimated 26 million speakers in Ethiopia)[14]. However, due to special interests, such as faith-based organizations working with a particular language group, some languages with relatively small populations have more titles than other much larger language groups. For example, due to support from SIL International, the Kuwaataay language in Senegal has 37 titles, even though its speaker population is estimated at only about 7,000.

3. The degree of the implementation of language in education policies tends to predict the number of titles recorded for a particular language.

In general, correlations were found between the quantity of titles found for each language in a given country and the language in education policies, either as written on paper or as implemented on the ground. For example, in Tanzania, the language in education policy allows for only Kiswahili to be used as the language of instruction (LOI) at the primary level. Although 125 languages are reportedly spoken in Tanzania (Lewis, Simons, & Fennig, 2015a), 99 percent of all titles located were in Kiswahili. In Nigeria, the official policy since the 1970s has called for Nigerian languages to serve as the LOI, but this policy is not widely implemented. Indeed, in Nigeria, among the more than 500 languages spoken (Lewis, Simons, & Fennig, 2015a), materials were found in only six.

4. There is a high level of variation in the number and type of titles by country.

Kenya was the country with the most titles surveyed (1,009), and Mali was the country with the fewest (298). Data were collected for relevant books according to two broad categories: textbook-related books, including student textbooks or primers, student workbooks, and teacher manuals; and supplementary non-textbooks, including materials classified as narratives, informational materials, references, or as poetry, songs, riddles, or proverbs. The results for individual countries varied widely, but taken together, the results for all countries reveal the following:

- The overall ratio of textbook-related titles to supplementary titles is 2:3.
- The most common textbook-related materials are student textbooks (73 percent), whereas student workbooks are the least common (7 percent). Teacher manuals constitute approximately one fifth (19 percent) of the textbook-related titles surveyed.

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institutions beyond the home and community." Source: Lewis, M.P., Simons, G.F., & Fennig, C.D. (Eds.). (2015a). *Ethnologue: languages of the world* (18th ed.). Retrieved from http://www.ethnologue.com.
[14] Language population data are from the *Ethnologue* (Lewis, Simons, & Fennig, Eds., 2015a).

- Narrative texts (e.g., stories) are the most common type of supplementary title (79 percent overall). Informational texts (e.g., non-fiction) constitute only 13 percent of the supplementary inventory.

5. Non-profit organizations and commercial publishers are the lead producers of EGR materials in African languages.

Together, commercial publishers and non-profit organizations account for almost two thirds (63 percent) of titles surveyed produced since 2000, which include most of the titles surveyed (75 percent). Individually, commercial publishers account for 40 percent, and non-profits account for 34 percent.

6. Available titles are generally appropriate for supporting EGR development.

The results varied from country to country, but in general, a large percentage of textbooks contained reading passages (67 percent) and vocabulary exercises (60 percent), which are standard, expected components of EGR materials. Approximately 42 percent of all titles included a phonics-based approach to reading instruction[15]. Most titles (textbooks and non-textbooks) were evaluated as being culturally relevant to the target audience and void of inappropriate content (e.g., violence or traumatic events). Women and girls were generally represented in a positive manner. However, a marked absence of people with disabilities was noted in the titles in the sample.

7. There are very few titles for the early stages of reading development in comparison to the more advanced levels.

Textbook-related materials are available for all primary grades (Primary Grades 1–4) but extremely rare for pre-primary grades (only 4 percent overall). A third of all supplementary reading materials had more than 75 words per page (wpp), which is only appropriate for readers who have already attained fluency. Materials with fewer wpp, which are appropriate for children in the earlier stages of literacy development, were not as numerous: Only 13 percent of titles were found in the 51–75-wpp range (intermediate), followed by 14 percent in the 1–10-wpp range (beginning).

8. The use of open licensing is not yet widespread in sub-Saharan Africa, and neither is the use of clear labeling on copyright status and conditions for re-use.

The results from the DERP Reading Materials Survey show that 40 percent of surveyed titles have "All Rights Reserved". In contrast, only 7 percent of all titles surveyed are licensed under Creative Commons. A very large percentage of titles did not contain any explicit statement regarding conditions for re-use: as high as 96 percent in the DRC, 87 percent in Senegal, and 85 percent in Mozambique. The implication of these findings is that many of the materials currently available in African languages may be difficult to reproduce more widely or to translate into other languages.

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[15] Phonics-based approaches to reading instruction focus on the connection between written letters and the sounds they represent in speech and have been shown to be effective in teaching students to read in alphabetic languages.

Conclusions

The DERP Reading Materials Survey offers more information than has previously been available on EGR materials in sub-Saharan Africa. However, the data collected do not constitute an exhaustive inventory and, given the lack of reliable statistics on the African book sector, are not necessarily a representative sample of children's publications in African languages. Likewise, as the objective of this task was to gather data on as many titles as possible in a short amount of time, an in-depth evaluation of quality was not possible. Although the survey collected information about the presence of specific pedagogical components in textbooks, further research is required to determine whether the scope and sequence, level, and methodologies are aligned with research-based best practices for supporting EGR development.

Nonetheless, the results strongly indicate that, although materials exist in a wide range of languages, for many languages, the available materials are insufficient to adequately support children's reading development. In general, and accounting for languages for which a more robust supply of materials exists, the most salient gaps in the supply are teacher's manuals, decodable readers, and informational (non-fiction) supplementary readers.

The findings also suggest a need for strengthening the capacity of local talent to produce developmentally appropriate supplementary materials that match early readers' different skill levels. The specific knowledge areas to strengthen could be the following: reading acquisition, text difficulty and readability, and leveling. Better knowledge of how to appropriately level content could also prove useful for more rigorous evaluations of supplementary materials.

Finally, the findings of the DERP Reading Materials Survey suggest that producers of materials may not perceive any benefit in sharing information on copyright and permissions for re-use. The low use of Creative Commons licenses also signals either a lack of knowledge of open licensing or a perceived threat of open licensing to profitability or control over the original content of titles. All of these cases constitute barriers to making existing materials more easily available for reproduction, translation, or adaptation, either at a cost or gratis.

1   Introduction

1.1   Objectives

This study was commissioned by the U.S. Agency for International Development (USAID) under Task Order 19 of the Education Data for Decision-Making (EdData II) blanket purchase agreement, Data for Education Research and Programming (DERP) in Africa, primarily to inform the development of the Global Reading Repository, which will be part of the Global Book Fund initiative. The Global Reading Repository will store digital versions of available reading materials from several continents and may eventually contain teaching and learning materials across content areas. Pending an ongoing feasibility study, the repository is intended to serve as a global materials catalogue that will facilitate the sharing, adaptation, versioning, and printing of existing titles on large or small scales (All Children Reading, 2014).

The purpose of the DERP Survey of Children's Reading Materials in African Languages in Eleven Countries [Reading Materials Survey] was to develop an approach for collecting information about existing materials and provide a detailed description of the current supply of early grade reading (EGR) materials in African languages in 11 countries in sub-Saharan Africa. Data were collected in the following countries selected by USAID: the Democratic Republic of the Congo (DRC), Ethiopia, Kenya, Malawi, Mali, Mozambique, Nigeria, Senegal, Tanzania, Uganda, and Zambia. These 11 countries were chosen to reflect a variety of colonial heritages, policies regarding the use of African languages in education, and developmental levels of the industries involved in developing, printing, and distributing educational content.

Further background on issues related to the market for educational materials in sub-Saharan Africa is available in Section 1.2 of this report. Section 2 provides details about the data collection methodology, including the development of the survey instrument, sampling, and training of data collectors. Section 3 reviews the language in education policy for each of the 11 countries in the sample, comparing the policy on paper against its implementation on the ground. Section 4 presents and discusses the survey findings, organized according to the main research focus areas, as follows:

- **To describe the availability of titles in African languages for the early primary grades**, especially in terms of language and book type (textbooks or other reading materials; Section 4.1);

- **To review the usefulness of available titles for reading development** in terms of the pedagogical components, reading level, cultural relevance, age appropriateness, and social inclusivity of their contents (Section 4.2);

- **To assess the feasibility of using, adapting, and reproducing available titles** based on their copyright status and current availability in digital format (Section 4.3); and

- **To describe the general landscape of the production of EGR materials in African languages**, including the types of organizations producing titles, the number of titles

produced per decade since the 1960s, market prices, and the degree of development of the book sector based on the use of the International Standard Book Number (ISBN) (Section 4.4).

Section 5 of this report summarizes the conclusions. This general report is a high-level summary of the study, and the full country-level analyses are available in Annexes A–K. Annex L lists the number of titles found by language, and the survey instrument is provided in Annex M.

RTI International led all technical aspects of this project, including the research design, the development of an in-depth survey instrument, and data analysis and reporting. blueTree Group Kenya led the data collection effort by building a team of three or four Consultants in each country to collect data. In addition, blueTree Group Kenya coordinated the training of the data collection teams with technical assistance from RTI. As a result of these efforts, RTI and blueTree Group Kenya collected data on a total of 5,919 titles.

The DERP Reading Materials Survey offers more information than was previously available about EGR materials in sub-Saharan Africa, with greater detail and nuance per country. However, the data collected do not constitute an exhaustive inventory and, given the lack of reliable statistics on the African book sector, are not necessarily a representative sample of children's publications in African languages. Furthermore, the objective of this task was to survey as many titles as possible in a short amount of time; therefore, an in-depth evaluation of the quality of the materials or their effectiveness for instructional purposes was not possible.

1.2 Background

Reading materials in African languages that are appropriate for children in the early grades are critically scarce.[16] This deficit has negative implications for improving the reading skills of children in sub-Saharan Africa, 50 percent of whom fail to reach minimum learning standards in reading by Primary Grade 4 (UNESCO, 2014). Assessments of EGR have shown that in some regions, more than 90 percent of children are not able to read a single word by the end of Primary Grade 2 (RTI International, 2011; RTI International, 2014).

Children who do not have access to level-appropriate reading materials have reduced opportunities to become familiar with print and practice reading skills; therefore, they are less likely to develop reading fluency before the end of primary school (Davidson, 2013). Providing reading instruction in the languages that children speak and understand is critically important because children apply the oral language and vocabulary skills that they already have to the process of learning to read (Abadzi, 2006; Ball, 2011; Bender, Dutcher, Klaus, Shore, & Tesar, 2005; Ouane & Glanz, 2011; RTI International, 2015). Once students have learned to read in their mother tongue, they can transfer this skill to learning to read in another language (August & Shanahan, 2006; Royer and Carlo, 1991).

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[16] There is low availability of textbooks and learning materials in general. See Evans (2010) and studies cited by Fredriksen et al. (2015). This Introduction section explains why materials in African languages are likely to be even scarcer.

Conversely, initial reading instruction in an unfamiliar language has been shown to negatively affect literacy acquisition (Bender et al., 2005; UNESCO Bangkok, 2012). Because reading is the foundational skill of schooling, students who do not learn how to read in the early primary grades will struggle in school in all subjects, and many will drop out of school before Primary Grade 4 (Gove and Cvelich, 2011).

Unfortunately, guaranteeing children the opportunity to learn to read in a language they speak and understand has proven challenging for many countries in sub-Saharan Africa. Sub-Saharan Africa is characterized by high linguistic diversity, both across and within countries. Most people use African languages in their day-to-day interactions (Lewis, Simons, & Fennig, 2015a), but the official language in most countries is the language of 19th century European colonization (i.e., English, French, Portuguese, or Spanish) or Arabic.[17] The choice of language (or medium) of instruction (LOI) used in education has implications not just for learning outcomes but also for political and social power struggles and competing cultural identities; therefore, this is a sensitive issue in the region (Bamgbose, 1991; Brock-Utne, 2001; Cummins, 2000; Ouane & Glanz, 2011). Although many countries have now adopted policies that promote the use of African languages in education, these policies are not always widely implemented[18] because of a complex set of factors that are beyond the scope of this study (Bamgbose, 2011; Ouane & Glanz, 2011).

The link between the implementation of language in education policies and the market for reading materials in those languages is crucial to this study. Considering that the formal education sector can drive up to 95 percent of the total demand for books in some countries (Ogechi and Bosire-Ogechi, 2002; Ouane and Glanz, 2011), if the use of African languages in education tends to be the exception rather than the rule, then it follows that there will be a low demand for books in those languages. Other factors, such as low purchasing power, high illiteracy rates, and a lack of reading habits among the population (which could be linked to the low literacy levels caused, at least in part, by the use of languages students do not understand for instruction), also help explain the low demand for books in general (Diallo, 2011).

Previously, little was known about the existing materials (Diallo, 2011). Collecting information about the current supply, and focusing on titles that may be appropriate for EGR, is necessary for stakeholders to understand how best to fill the gaps in the availability of reading materials. Some of the book chain concerns are as follows: In which African languages are materials available? How does the production of textbooks compare to the production of supplementary reading materials? Are materials available for all early primary grades? Is the content of available materials culturally relevant and appropriate for young children? Which actors lead the production of materials in African languages? Has production grown, decreased, or remained stable in the past few decades? How does the supply compare across countries? The data collected through the DERP Reading Materials Survey represents a first important step toward answering these and other questions.

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[17] Section 3 of this report includes a summary of the official languages of the countries in the sample.
[18] Section 3 of this report presents a desk review of the language in education policies and their implementation.

2 Methodology

2.1 Target Content

The DERP Reading Materials Survey targeted materials in African languages relevant for the early primary level (roughly kindergarten through Primary Grade 3), including both reading textbooks and non-textbook, "supplementary" reading materials (e.g., fiction and non-fiction texts). The target content for this survey included not only materials that could be read by students or to them but also other materials that support EGR instruction, such as teacher's guides and dictionaries. The survey focused almost exclusively on materials written in African languages. Titles written in European languages—English, French, and Portuguese—were not included in this study *unless* they were available as shell books,[19] appeared bilingually alongside an African language, or in rare cases, were in a reference book (e.g., a description of the grammatical rules of the language) or a teacher's guide for a reading curriculum in an African language.

Although some materials, especially textbooks, are labeled for reading instruction at a specific level, many other materials are not specifically directed at children but could potentially facilitate the EGR process. To provide focus for the data collection exercise and to ensure that the most relevant materials were prioritized for this survey, the country research teams targeted the following types of materials, in order of importance. These three categories were used for sampling purposes only (not for data analysis).

Category 1—Materials that were intentionally developed to facilitate EGR acquisition and that match the age or grade level interests and reading abilities of early readers. These include reading textbooks, student workbooks, teacher's guides, "big books", leveled readers, storybooks, non-fiction or informational books, poetry, magazines, and other items that are intended for children.

Category 2—Materials that were not intentionally written for the targeted age or grade level but are of potential interest to early primary students or could potentially be adapted for early primary children. These materials include primers written for adult and/or non-formal literacy classes that could be adapted for early grade students and traditional stories, folktales, fables, Bible stories, poetry, and proverbs written for a general audience.

Category 3—Reference materials that were not intended for direct use by students but are potentially useful to teachers. These materials include dictionaries and grammar books.

These categories were used as a guide for selecting the sample of titles to be surveyed in each country. The following section describes the survey instrument in greater detail.

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[19] Shell books are books intended and authorized to be adapted into multiple languages and are available in a "shell," or digital template, that simplifies the book-making process.

2.2 Survey Instrument

The survey instrument was designed to facilitate the analysis of multiple aspects of reading materials in each country. Data fall into seven main categories as described below. The full survey instrument is available in Annex M of this report.

1. **Basic identifying information.** This category includes the title, author, producer, publication date, and price. The "producer" refers broadly to any organization responsible for the development and publication of reading materials. The type of producer (e.g., private, governmental, not for profit, or bilateral or multilateral donor) was also recorded.

2. **Print specifications and format.** This category includes the title's availability in hard copy, soft copy (digital file), or both. In the case of hard-copy titles, the physical dimensions of the books were recorded. For soft-copy titles, the digital file format was recorded. The number of pages and use of color in illustrations (if any) were also noted.

3. **Copyright.** This category gathers information on whether the reproduction and dissemination of materials are permissible and whether special authorizations or rights negotiations are required. Additionally, the use of a Creative Commons license, if any, was recorded for each title.

4. **Language.** For each title, the language of publication as coded on the *Ethnologue*[20] (Lewis, Simons, & Fennig, 2015a) was noted, as well as the script and the conformity of the text to the standardized orthography, when known.

5. **Book type.** Each title was categorized as a textbook-related or non-textbook (supplementary) material. The textbook-related sub-types included student literacy textbooks, student literacy workbooks, or literacy-related teacher's guides. (Textbooks for subjects other than reading or language arts were not considered.) In the case of supplementary materials, information about genre (narrative, informational, poetry, or reference) and the type of material (e.g., leveled reader or big book), where applicable, was noted.

Given the diversity of languages in sub-Saharan Africa, it could not be assumed that local data collectors would be able to read all languages proficiently. For the next two types of data, the survey questions facilitated assessing these factors regardless of the data collector's proficiency in a particular language. For books written in an unfamiliar language, the data collectors were trained to make inferences based on the illustrations, number of words per page (wpp), and other relevant items.

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[20] The *Ethnologue* (Lewis, Simons, & Fennig, 2015a) is a comprehensive reference work by SIL International that catalogues statistics about all of the world's known living languages. The *Ethnologue*, in cooperation with the International Organization for Standardization (ISO), created an international standard for language codes. To facilitate identification and classification, a three-letter code is assigned to every known language or dialect in the world (Lewis, Simons, & Fennig, 2015a).

6. **Indicators of content.** For all titles except teacher's guides and reference materials, the survey instrument collected information about the prevalent topics or themes in the content.

7. **Usefulness for EGR instruction.** The potential usefulness of a particular title for EGR instruction was assessed by examining the following five factors:

   a. **Estimated Reading Level:** In the case of textbooks, the publisher-recommended grade level for each title, as stated on the cover or title page, was recorded. For supplementary materials, the maximum number of wpp was used as a proxy to gauge the relative levels of reading difficulty within the same language.

   b. **Pedagogical Components:** Textbook-related titles were examined for the type of activities they included (e.g., phonics, vocabulary, comprehension, or grammar).

   c. **Content Familiarity:** The content of each title was evaluated for its level of familiarity to the target audience based on a specific set of criteria. (The criteria are specified in Annex M of this report.)

   d. **Content Appropriateness:** For each title, data collectors were asked to record the presence of any potentially sensitive content (e.g., violence or substance abuse).

   e. **Representation of Gender, Ethnicity, Religion, and Persons with Disabilities.** Questions in the survey instrument were used to assess whether the contents of a particular title displayed bias or inequitable representation of gender, race, religion, or persons with disability.

A digital version of the survey instrument was built in Tangerine®, a software application that is used to collect survey data and employs open-source code.[21] The instrument was translated into French for the benefit of Francophone data collectors. Tablets were used to collect the data.

2.3   Country Teams

Each country team consisted of one Country Coordinator and two or three field researchers, collectively referred to as the "data collectors". The Country Coordinator was responsible for the sampling strategy and overall coordination of the study in each country, and the field researchers focused on the data collection effort. Team members were selected primarily based on their pedagogical and/or linguistic experience and their experience in developing reading materials and project management. Their experience with ministries of education and local organizations that develop reading materials was also considered in the selection process. blueTree Group Kenya was responsible for recruiting country team members and relied heavily on SIL International, the African Academy of Languages (ACALAN), and its own contacts in book printing and distribution in sub-Saharan Africa to identify potential candidates.

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[21] Tangerine® allows data to be entered directly into a server for analysis, thereby eliminating the significant costs associated with large-scale paper-based surveys and manual data entry. For more information about Tangerine®, please see www.tangerinecentral.org.

2.4   Training and Support for Data Collection

In preparation for the survey implementation, the Country Coordinators and field researchers (i.e., data collectors) were trained the week before data collection began. The training was led by blueTree Group Kenya with support from the project's technical leader at RTI. A two-day training session was held for Country Coordinators only, and then, a three-day session was held for the field researchers with participation from the Country Coordinators. Sessions were conducted in French for Francophone countries[22] and in English for Anglophone countries,[23] Ethiopia, and Mozambique. Because of budgetary constraints, the training occurred remotely via web conferencing. The contents of the training sessions included background about the project, the steps of the implementation process, the roles and responsibilities of the data collection team, how to use Tangerine® on the tablets, and how to use the survey instrument to collect data. The instructions for using the survey instrument are embedded within the instrument (see Annex M of this report).

The field researchers' training emphasized how to use the survey instrument. The specific module on the use of the survey instrument was informed by a pilot conducted by RTI before the training to test the instrument on Tangerine®. During training, the field researchers practiced completing the survey instrument with sample titles from a wide range of types of materials, in both familiar and unfamiliar languages. The field researchers compared and discussed their answers and received additional clarification during a live session with blueTree Group Kenya and RTI staff.

The final milestone during the training was an inter-rater reliability test that the field researchers completed individually to verify their proficiencies in the use of the instrument on the Tangerine® platform. Their answers were scored according to a "gold standard" established by RTI. A minimum score of 80 percent against the gold standard was required before the field researchers were authorized to begin data collection. The average score among the field researchers was 85 percent.

2.5   Sampling Strategy

All country teams used the same sampling strategy. Country Coordinators were asked to first conduct a desk review to identify local organizations, such as the following, in each stakeholder category:

- The Ministry of Education (MOE) and any other ministries or parastatals that produce or procure EGR materials, such as the Ministry of Gender or the Ministry of Culture;

- The directory of for-profit private publishers (both local and international) that is usually available through the national publishers association or an equivalent body at the national level;

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[22] DRC, Mali, and Senegal.
[23] Kenya, Malawi, Nigeria, Tanzania, Uganda, and Zambia.

- Development organizations, including the Agence Française de Développement (French Development Agency [AFD]), the Australian Government's Department of Foreign Affairs and Trade (DFAT), the United Kingdom's Department for International Development (DFID), the Deutsche Gesellschaft für Internationale Zusammenarbeit (German Society for International Cooperation[GIZ]), and USAID. Additional development organizations include World Bank, the Global Partnership for Education (GPE), the Kreditanstalt für Wiederaufbau (a German government-owned development bank [KfW]), the Norwegian Agency for Development Cooperation (Norad), the United Nations Children's Fund (UNICEF), and the United Nations Educational, Scientific, and Cultural Organization (UNESCO);

- National and international non-governmental organizations (NGOs);

- Digital libraries;

- Faith-based organizations (FBOs), such as SIL International, Catholic Education, Caritas Internationalis, and Finnish Lutherans;

- Booksellers and distributors;

- The national library; and

- National, local, and regional language commissions.

Once blueTree Group Kenya had reviewed and approved the initial list of stakeholders in each country, the country teams contacted these organizations to determine whether they had relevant materials. The Country Coordinators used the list of stakeholders with relevant materials to develop a logistical strategy for data collection to maximize the number of titles surveyed during the time available.

Simultaneously, RTI and blueTree Group Kenya reached out to their own networks to search for materials, including USAID-funded EGR programs, many of which develop reading materials in African languages.

Finally, each country team issued a radio and/or newspaper advertisement to invite any interested parties not previously contacted by the country team to participate in the survey. Advertisements were published or broadcast through national newspapers and radio channels to ensure coverage in various portions of each country. In all countries, a public event was organized in the capital city. Organizations that were unable to attend the meeting were invited to enter information about their titles through an abbreviated, online version of the survey instrument in Tangerine®.

Table 1 shows where the titles were encountered in each country from among the following options:

- Provided by the publisher, funder, or sponsoring organization;
- Found in the market (i.e., at a bookstore, a shop, an open-air stand, or another distributor that was not directly affiliated with the publisher or government);
- Provided by a government official or public school staff;

- Provided by private school staff;
- Provided by a secular NGO or community organization not directly affiliated with the publisher or government;
- Provided by a faith-based NGO or religious organization (e.g., church) not directly affiliated with the publisher or government;
- Found in a library;
- Found in an individual's private collection; and
- Found on a Website.

Most titles (62 percent) were found through publishers. In the DRC, Malawi, and Zambia, a large percentage of titles were found in libraries, and in Nigeria, many were obtained from the market. Kenya and Uganda had a large number of online titles, primarily from the South African Institute for Distance Education's (SAIDE's) African Storybook Project.[24]

Table 1. Sources of Titles

Country	Publisher	Market	Government/ Public School	Private School	Secular NGO	FBO	Library	Individual	Online
DRC	38%	7%	18%	9%	2%	13%	36%	12%	0%
Ethiopia	76%	11%	4%	0%	0%	0%	4%	2%	5%
Kenya	64%	4%	0%	0%	1%	0%	3%	1%	24%
Malawi	56%	17%	18%	3%	0%	2%	58%	9%	0%
Mali	51%	1%	20%	3%	8%	9%	3%	10%	0%
Mozambique	85%	0%	2%	0%	0%	0%	0%	5%	8%
Nigeria	41%	36%	3%	1%	3%	0%	0%	3%	13%
Senegal	95%	0%	3%	0%	2%	1%	0%	0%	0%
Tanzania	88%	5%	0%	0%	0%	0%	0%	3%	4%
Uganda	58%	1%	0%	0%	0%	0%	8%	0%	27%
Zambia	46%	13%	3%	0%	11%	2%	24%	1%	0%
OVERALL	62%	8%	5%	1%	3%	2%	12%	3%	10%

Note: Multiple responses were possible per title; therefore, the sum of the percentages may exceed 100.

It should be noted that this sampling strategy simply reflects the method used for locating books quickly, given the short time available for data collection. This sampling strategy does not necessarily reflect the total number of locations where the books might be found in each of the countries in the sample or the relative proportions of books available at those locations.

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[24] For more information about the African Storybook Project, see http://www.africanstorybook.org.

2.6 Data Collection

Data collection in all countries was completed within 30 days (roughly from the end of January 2015 through the end of February 2015). RTI made two technicians available to the data collectors during the data collection period to resolve technical challenges. RTI also monitored incoming data closely, flagging possible errors and following up immediately with data collection teams in the field. Following data collection, blueTree Group Kenya continued to enter additional titles that were available in a digital format. RTI staff entered data for some of the materials from the African Storybook Project website and for some USAID-funded materials provided to them directly by projects.

3 Language in Education Policy and Implementation

As previously discussed, the choice of LOI influences the market for and availability of materials in those languages. All of the countries in the study are multilingual. Individual countries use different terms to describe the de jure statuses of their languages, and sometimes, the terms have multiple meanings (e.g., in legal versus casual parlance). For clarification, in the context of this report, the term "official language" will refer to the languages that have been sanctioned by government decree, usually in the constitution, for use by the government in its official business, including in the administration, legislature, and courts. The term "national language" will refer to the African languages[25] that have been accorded some sort of officially recognized status by government decree in addition to the official language. The sanctioned uses of a national language may or may not overlap with those of the official language. In 10 of the 11 countries, the language of the former European colonial power remains the "official" language, sometimes solely and sometimes jointly with an African language. The exception is Ethiopia, which was never colonized by a European power, in which Amharic is the sole official language. The national languages are usually the African languages with the largest populations of speakers in the given country.[26]

In most cases,[27] the official language is also the LOI at the secondary and tertiary levels of education, but the countries surveyed take different approaches to the choice of the LOI at the primary level, as shown in **Table 3** at the end of this section of the report. The following paragraphs synthesize the information presented individually by country in Table 3; to facilitate reading, the supporting citations are also provided in Table 3, unless otherwise noted.

Several of the countries in the study have adopted an "early exit transitional" model (USAID, 2012), in which a presumably familiar language (the home or community language) is used as

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[25] In this terminology, "national" languages include only endoglossic (indigenous) languages, whereas official languages may be either endoglossic or exoglossic (non-indigenous).

[26] In some cases, languages spoken by relatively small populations may also be accorded a status as a national language (e.g., there are currently 22 national languages in Senegal and 13 in Mali). In contrast, sometimes, languages spoken by relatively large populations lack any type of government recognition.

[27] Exceptions include Ethiopia, where Amharic is the official language, but English is the LOI for upper secondary and tertiary levels of education, and Kenya, where both Kiswahili and English are co-official languages, but only English is officially used as the LOI after the primary cycle.

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the LOI in early primary grades, followed by a transition to the official language in upper primary grades. Kenya, Uganda, Zambia, and Nigeria have official texts supporting this approach. In Kenya and Uganda, the prescribed year of transition is Primary Grade 4, and in Zambia, it is Primary Grade 5. In Nigeria, the timing of the transition is not stated explicitly.[28] Although Senegal does not yet have an explicit policy on LOI,[29] this country likely falls somewhere in this category as well, with official texts supporting the principle of using the national languages as the LOI in early primary grades (although the timing of this transition is not specified), presumably alongside French. Malawi was also among these countries until a recent policy change reversed the use of the "mother tongue" as the LOI through Primary Grade 4 in favor of English beginning in Primary Grade 1; however, the National Reading Strategy continues to promote literacy and language development in both Chichewa and English.

In contrast to these six countries, the policies of the DRC, Ethiopia, Mali, and, beginning in 2017, Mozambique, will follow a "late exit transitional" model. In this type of model, one or more African languages are employed as the LOI throughout the full primary cycle or beyond, and the transition to the official language is postponed until lower or even upper secondary education. In the DRC, national languages are to be used as the LOI throughout the primary cycle (i.e., through Primary Grade 6), and in Ethiopia, they will be used through Primary Grade 8. Mali has a bilingual model with the first (one or) two years in a national language, followed by four years during which the LOI is split roughly equally between the national language and French. Mozambique has recently been using a mixture of models, with urban schools using Portuguese throughout the primary cycle, and some rural schools using a bilingual model with national languages as the LOI alongside Portuguese; the bilingual model is scheduled to be expanded nationwide in 2017. Although the Mozambican bilingual model begins the transition to Portuguese as the LOI in Primary Grade 4, this transition occurs gradually from Primary Grades 4 to 6 and is complete by Primary Grade 7.

Finally, Tanzania also belongs to the "late exit transitional" model group, with Kiswahili used as the LOI throughout primary education (Primary Grades 1–7) and a transition to English in Primary Grade 8. In 2015, its government announced plans to make Kiswahili the LOI throughout the secondary and tertiary cycles as well, either instead of or in addition to English. However, the policy itself is subject to different interpretations. It is not yet clear precisely how, when, or if the new policy will be implemented, and the issue remains controversial. If Kiswahili were to assume this additional role, Tanzania would essentially have a "first language (L1)–based instruction" model in which students receive instruction in a familiar language from the primary through tertiary levels.

To facilitate comparison, **Table 2** maps the LOI by grade level prescribed by these various policies.

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[28] The "… government will see to it that the medium of instruction in the primary school is initially the mother tongue or the language of the immediate community and, at a later stage, English" (National Policy on Education as cited in Adegbija, 2004).

[29] As of this writing, the Senegalese Ministry of Education has established a working group to formulate a new national language in education policy, which will presumably make the role of the national languages more explicit (A. Niang, personal communication, December 16, 2015).

Table 2. LOI by Grade Level According to Current or Imminent Policy

Country	Grade 1	2	3	4	5	6	7	8	9–12
DRC	Kikongo, Lingala, Kiswahili, Tshiluba, or a "language of the locality"						French		
Ethiopia	The "nationality" language chosen by each regional state								English
Kenya	The "language of the catchment area" or Kiswahili (urban areas)			English					
Malawi	English								
Mali	One of 13 national languages		One of 13 national languages and French				French		
Mozambique	One of 16 Mozambican languages		One of 16 Mozambican languages and, increasingly, Portuguese				Portuguese		
Nigeria	"... Initially the mother tongue or language of the immediate community"			"... at a later stage, English" (the timing of the transition is not specified)			English		
Senegal	A national language and French		French (the timing of the transition is not specified)						
Tanzania	Kiswahili							English (possibly Kiswahili)	
Uganda	"Mother tongue"			English					
Zambia	Nyanja, Bemba, Lozi, Tonga, Kaonde, Luvale, or Lunda			English					

Note: LOI policies prescribing the use of an African language are shaded in blue, a bilingual model (an African and a European language together) in stripes, and a European language in grey. Supporting citations are provided in Table 3.

The discussion thus far applies to the official policies. However, policies are not always implemented exactly as prescribed. Ethiopia, Uganda, Tanzania, and Mozambique show evidence of wide implementation of their current respective policies, although in some regional states of Ethiopia, the transition to English occurs as early as Primary Grade 5 (instead of Grade 9). Additionally Mozambique (and possibly Tanzania) is scheduled to implement the policy changes mentioned above in the near future. In Mali, evidence suggests that the bilingual education policy is at least partially implemented, but the degree of implementation appears to vary by region. In Kenya, Nigeria, and Senegal, the official European language is still widely used as the LOI throughout primary despite policies (or principles) favoring African languages. In Malawi, although a new policy in favor of English exists, Chichewa is still widely used. Recent data about implementation are not readily available for the DRC or Zambia, which is in the midst of a recent policy change favoring Zambian languages.

Moreover, it is worth noting that even when schools use African languages as the LOI, not all children will receive instruction in their L1 or even in a familiar second language (L2). Because of complex political and demographic factors, the choice of a common language to serve as the LOI in a particular location is not always straightforward. In any given classroom, the LOI could be the home language of all, most, or only a few of the children. For example, in the Mopti region of Mali, a 2010 study found that 68 percent of the 869 schools for which linguistic data were available were linguistically homogenous (i.e., all of the students spoke the same home language); therefore, the choice of a common language in those schools was not difficult (Rhodes, 2012). However, in Tanzania, where Kiswahili is the sole LOI in primary school nationwide, an estimated 80 percent or more of the population may speak it as a L2 (Lewis Simons, & Fennig, 2015b). Likewise, in Zambia, many children, and sometimes entire districts, are now learning in a Zambian language that is not their home language (Brombacher, Bulat, King, Kochetkova, & Nordstrum, 2015).

Table 3 summarizes the available data regarding the government-recognized language(s), the language in education policy, and the implementation of the language in education policy by country.

Table 3.   Summary of the Language in Education Policy and Implementation by Country

Country	Government-Recognized Languages in General	Language in Education Policy	Implementation of the Language in Education Policy
DRC	Official: French National: Kikongo, Lingala, Swahili (Congo), and Tshiluba (DRC Const. art. 1, §1).	French is the language of education, and one of the four national languages or a "language of the locality" is to be used as the LOI at the primary level (Loi-Cadre No 14/004 de l'Enseignement Nationale de 2014).	Recent data on implementation are not readily available.
Ethiopia	Official: Amharic National: "All Ethiopian languages enjoy equal state recognition" (Federal Democratic Republic of Ethiopia, Const. art. 5, §1). Regional states, zones, and weredas choose their own respective official languages (Leclerc, 2015a).	"Nationality" (i.e., Ethiopian) languages are to be used as the LOI for the full primary cycle through Primary Grade 8. Regional states choose their LOI from among the languages spoken in their respective areas or nationwide. English is to be the LOI beginning in Grade 9 and beyond (Federal Democratic Government of Ethiopia, 1994; Ethiopia MOS, 2002).	The policy is widely implemented, although the duration of the nationality language as the LOI varies by regional state. More than 20 languages, especially Amharic, are used as the LOI through Primary Grade 4, 6, or 8, depending on the regional state, with a transition to English thereafter (Heugh, 2010; Piper, 2010; Vujich, 2013).
Kenya	Official: Kiswahili and English National: Kiswahili (Kenya Const. art. 7 §1-2)	The "language of the catchment area" is to be used as the LOI for Primary Grades 1–3, with a transition to English in Primary Grade 4; in urban areas, because of linguistic heterogeneity, Kiswahili is to be the LOI (Republic of Kenya, 2012).	Implementation varies by region but is generally low; English is widely used as the LOI in early primary (Begi, 2014; Khejeri, 2013; Piper & Miksic, 2011). For example, in a 2010 study of 979 classrooms in both urban and rural schools in the Central and Nyanza provinces, children

Country	Government-Recognized Languages in General	Language in Education Policy	Implementation of the Language in Education Policy
			in Primary Grades 1–3 were taught in English 58 percent of the time overall (Piper & Miksic, 2011). In the rural areas, the use of the language of the catchment area was 18–31 percent, and in the urban areas, Kiswahili was used 31–32 percent of the time. Contrary to the national policy, in practice, the use of the mother tongue has even been prohibited at some schools (Spernes, 2012), and students may be punished for speaking it at school (Wangia, Furaha, & Kikech, 2014).
Malawi	Official (de facto): English (Leclerc, 2015b)	Beginning in 1996, the "mother tongue" was prescribed as the LOI in Primary Grades (called "standards" in Malawi) 1–4, with a transition to English in Primary Grade 5 (Secretary for Education's letter Ref. No. IN/2/14, 28 March 1996 as cited in Issa & Yamada, 2013). In 2014, the Minister of Education announced that English was to become the LOI beginning in Primary Grade 1, in accordance with the new Education Act passed in 2013 (Masina, 2014). Nonetheless, the National Reading Strategy (2014–2019) of the Ministry of Education, Science, and Technology (MoEST) promotes reading and language development in both English and Chichewa for early primary children (Malawi MoEST, 2014).	Chichewa is widely used as the LOI in lower primary grades (Issa & Yamada, 2013).
Mali	Official: French National: Bamanankan (Bambara), Bomu, Bozo, Dogon, Fulfulde, Hasanya, Mamara Senoufo, Soninke, Maninkakan, Songhay, Syenara Senoufo, Tamasheq, and Xaasongaxango (Mali Const. art. 25, §2; Article 1 of Decree 159/PGRM of 19 July 1982 and Law 96-049 of 23 August 1996, as cited in Canvin, 2007)	One of the 13 national languages is to be used as the LOI alongside French at the primary level (Canvin, 2007).	The policy is partially implemented. For example, in a study in 2010, 2,466 schools reported using one of 10 national languages (AFD & MEALN, 2010). In another 2010 study of 77 Primary Grade 2 classrooms across 16 districts, 84 percent of teachers used the national language designated as the LOI for that region as the only LOI in class, and 13 percent used both the national language and French (Varly, 2010a). However, a 2012 study of 949 schools in the Mopti region found

Country	Government-Recognized Languages in General	Language in Education Policy	Implementation of the Language in Education Policy
			that only 24 percent were using a national language as the LOI (Rhodes, 2012).
Mozambique	Official: Portuguese "The state shall esteem national languages as cultural and educational heritage, and shall promote their development and increasing use as languages that convey our identity" (Mozambique Const. art. 9-10, §1).	The 2002 Curriculum Reform policy allows three options: "(1) Portuguese-medium education … (2) Portuguese-medium education with 'recourse' to the local language as needed …, and (3) mother tongue-based bilingual education" (Chimbutane & Benson, 2012). In the bilingual model, the Mozambican language is used as the LOI through Primary Grade 3, and the transition to Portuguese as the LOI occurs gradually from Primary Grade 4 to 6 (Henricksen, 2010). The new policy to take effect in 2017 envisions one of 16 Mozambiquan languages to be used nationwide alongside Portuguese as the LOI at the primary level ("Ensino primário moçambicano", 2015).	Portuguese is currently used as the sole LOI throughout all grades in urban schools and in many rural schools (Henriksen, 2010). Experiments with bilingual models using a Mozambiquan language and Portuguese at the primary level began in rural areas in the 1990s and are ongoing. As of 2015, nearly 500 schools were estimated to be offering bilingual classes to 80,000 children (ASSECOM, 2015).
Nigeria	Official: English National: Hausa, Igbo, and Yoruba (Nigeria Const. art. 55, §5)	The "mother tongue or the language of the immediate community" is to be used "initially" as the LOI for early primary grades, with a transition to English "at a later stage" (i.e., upper primary) (National Policy on Education as cited in Adegbija, 2008).	The policy is partially implemented, but English is widely used as the LOI at all levels, especially in urban and private schools. For example, a 2012 study of Primary Grade 1–3 classes in 12 primary schools in Lagos state found that 85–94 percent of science lessons were orally delivered in the mother tongue in the rural schools (27–62 percent in urban schools) (Okebukola, Owolabi, & Okebukola, 2012). However, a 2011 study that randomly sampled 720 primary schools, both urban and rural, from across the 36 states found that the mother tongue was not widely used as the LOI (Duze, 2011).
Senegal	Official: French National: Diola (Jola-Fonyi), Malinke, Pulaar, Serer, Soninke, Wolof "and any other national language [that] has been codified" (Republic of Senegal Const. art. 1, §1) As of 2015, a total of 22 languages had been	No explicit policy is currently in place, although as of this writing, a government working group is in the process of finalizing a proposal for a new official policy (A. Niang, personal communication, December 16, 2015). Several official documents support the use of national languages as the LOI in early	The use of national languages as the LOI is not widely practiced. From 2002 to 2008, the Senegalese government supported more than 400 experimental bilingual programs at the primary level in one of six national languages and French, but currently, most of the few remaining bilingual programs are

Country	Government-Recognized Languages in General	Language in Education Policy	Implementation of the Language in Education Policy
	codified, including: Balant, Bayot, Guñuun, Hassanya, Jalunga, Joola, Kanjaad, Laalaa, Mandinka, Mankaañ, Mënik, Manjaaku, Ndut, Noon, Oniyan, Paloor, Pulaar, Sooninke, Saafi-Saafi, Seereer, and Wolof (RTI International, 2015; D. Bathily Toure & F. Badiane, personal communication, December 10, 2015).	primary grades, but the official curriculum is in French from Primary Grade 1 (Leclerc, 2015c; RTI International, 2015; DeStefano, Lynd, & Thornton, 2009).	supported by NGOs (with government consent to operate in public schools). Otherwise, French is widely used as the LOI at all levels (RTI International, 2015). For example, a 2009 study based on classroom observations in 50 schools in 11 regions found that teachers used French as the LOI more than 95 percent of the time (Varly, 2010b).
Tanzania	Official: Kiswahili and English (Tanzania Const. art. 4, §1)	Currently, Kiswahili is to be used as the LOI for the full primary cycle (i.e., Primary Grades 1–7, called "standards" in Tanzania), with a transition to English at the secondary level. In 2015, the government announced plans to move toward a new policy, potentially extending Kiswahili as the LOI to all levels of education (The United Republic of Tanzania Ministry of Education and Vocational Training, 2014).	The policy is widely implemented. Kiswahili has also been used informally as the LOI at the secondary level (Kinyaduka & Kiwara, 2013), and this practice could potentially be formalized by the new policy.
Uganda	Official: English and Kiswahili (Uganda Const., art. 6, §1-2).	The policy recommends that the "mother tongue" be used as the LOI in the early primary grades, with a transition to English in Primary Grade 4 (Uganda Ministry of Education, Science, Technology, and Sports, 2010).	The policy is widely implemented. For example, a 2010 study based on 620 classrooms found that more than 70 percent of the time, the "mother tongue" was consistently used as the LOI in Primary Grades 1–3; its usage fell abruptly in Primary Grade 4 (Piper & Miksic, 2011).
Zambia	Official: English (Zambia Const. art. 304, §23)	The new policy implemented in 2013 authorizes seven Zambian languages (i.e., Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, and Tonga) for use as the LOI through Primary Grade 4, with a transition to English in Primary Grade 5 (Zambia Ministry of Education, Science, Vocational Training, and Early Education, 2013).	Implementation is in transition from English as the LOI to one of seven regional Zambian languages. Data on implementation are not yet readily available.

4 Findings and Discussion

4.1 Availability of EGR Materials in African Languages

4.1.1 Total Titles

A total of 5,919 titles were surveyed. The largest number of titles reviewed was for Kenya (1,009), and the fewest was for Mali (298). **Table 4** shows the titles surveyed per country.

Table 4.   Titles Surveyed

Country	Number of Titles Surveyed	Percentage (%) of Entire Data Set
DRC	458	8%
Ethiopia	598	10%
Kenya	1,009	17%
Malawi	354	6%
Mali	298	5%
Mozambique	324	5%
Nigeria	364	6%
Senegal	460	8%
Tanzania	387	7%
Uganda	786	13%
Zambia	881	15%
OVERALL	5,919	100%

Note: In all instances in this report, the percentages are rounded off to the nearest whole percentage. Any apparent inexactitude in the sum of the totals is explained by rounding.

4.1.2 Languages

The survey sampled relevant materials in all the African languages encountered. As previously stated, materials in European languages were only considered in the case of bilingual publications, in which a European language appeared alongside an African language, "shell books" (i.e., intended and authorized for versioning into local languages), or in rare cases, reference books (e.g., a description of the grammatical rules of the language) or teacher's guides for an African language reading curriculum.

Table 5 lists the three African languages with the highest number of titles recorded in each country, along with the estimated population of native language speakers taken from the *Ethnologue* (Lewis, Simons, & Fennig, 2015a), the most comprehensive database of statistics on world languages. However, some of these estimates are out of date and may under- or overestimate the size of the current population. Additionally, some languages (e.g., Chichewa/Nyanja, Hausa, Kiswahili, and Wolof) have significant numbers of L2 speakers.

In several countries, more than half of the titles inventoried were in one language (e.g., Amharic in Ethiopia [61 percent], Chichewa in Malawi [87 percent], Bambara in Mali [52 percent], and Kiswahili in Tanzania [99 percent]).

Table 5.   Languages with the Most Titles Surveyed in Each Country

Country	Languages[a] with the Most Titles Surveyed in Country	ISO 639-3 Language Code[b]	Estimated Number of L1 Speakers in Country[c]	Estimated Number of L2 Speakers in Country[c]	Number of Titles Surveyed in Country	Percentage of Titles Surveyed in Country
	Lingala	lin	2,040,000	Unknown	105	23%
DRC	Kikongo	kng	3,000,000	5,000,000	88	19%
	Ngbaka	nga	1,010,000	Unknown	70	15%
	Amharic	amh	21,600,000	4,000,000	366	61%
Ethiopia	Afan Oromo	gaz	8,920,000	Unknown	52	9%
	Bench	bcq	348,000	22,600	36	6%
	Suri	suq	26,900	Unknown	36	6%
	Kiswahili	swh	111,000	16,500,000	424	42%
Kenya	Kamba	kam	3,893,000	600,000	70	7%
	Maasai	mas	842,000	Unknown	54	5%
	Chichewa	nya	6,500,000	Unknown	309	87%
Malawi	Tumbuka	tum	1,180,000	Unknown	18	5%
	Yao	yao	1,760,000	Unknown	14	4%
	Bambara	bam	4,000,000	10,000,000	155	52%
Mali	Fulfulde, Maasina	ffm	1,040,000	Unknown	46	15%
	Sénoufo, Mamara	myk	738,000	Unknown	27	9%
	Makhuwa	vmw	3,220,000	Unknown	56	17%
Mozam-bique	Makonde	kde	360,000	Unknown	41	13%
	Nyanja	nya	599,000	Unknown	41	13%
	Igbo	ibo	18,000,000	Unknown	126	35%
Nigeria	Yoruba	yor	18,900,000	2,000,000	107	29%
	Hausa	hau	18,500,000	15,000,000	91	25%
	Serer-Sine	srr	1,130,000	Unknown	122	27%
Senegal	Wolof	wol	5,210,000	Unknown	57	12%
	Kuwaataay	cwt	7,200	Unknown	37	8%
Tanzania[d]	Kiswahili	swh	15,000,000	Unknown	382	99%

Country	Languages[a] with the Most Titles Surveyed in Country	ISO 639-3 Language Code[b]	Estimated Number of L1 Speakers in Country[c]	Estimated Number of L2 Speakers in Country[c]	Number of Titles Surveyed in Country	Percentage of Titles Surveyed in Country
Uganda	Ganda	lug	4,130,000	1,000,000	182	23%
	Lugbara	lgg	797,000	Unknown	82	10%
	Lango	laj	1,490,000	Unknown	72	9%
Zambia	Tonga	toi	1,330,000	Unknown	168	19%
	Bemba	bem	3,810,000	Unknown	159	18%
	Chinyanja	nya	2,180,000	Unknown	146	17%

[a] Many languages are known by several different names. Language names are given here as they are listed in the *Ethnologue* (Lewis, Simons, & Fennig, 2015a), except Kiswahili ("Swahili") in Tanzania and Chinyanja ("Chichewa") in Zambia. The ISO 639-3 code is given for clarification.
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] All speaker population data are from the *Ethnologue* (Lewis, Simons, & Fennig, 2015a) unless otherwise noted.
[d] In Tanzania, only 10 out of 387 titles contained languages other than Kiswahili: one in Nyamwezi and four in languages that the data collectors were unable to identify. Five of these were bilingual with Kiswahili.

Figure 1 illustrates the percentages of languages represented in surveyed materials with respect to the estimated total number of languages in each country. The estimates are based on the number of languages listed in the *Ethnologue* (Lewis, Simons, & Fennig, 2015a) for each country, excluding any languages listed as extinct. The number of native speakers of each of these languages can range from a few hundreds to the millions. Additionally, many languages span country borders.

The percentages of languages for which titles were found with respect to the total number of languages in any given country varied widely. Some countries within the study that had a relatively low degree of linguistic diversity had a high degree of coverage (e.g., Kenya and Uganda), whereas some of the most linguistically diverse countries had the lowest levels of coverage (e.g., Nigeria and Tanzania). These results reflect the language in education policies of each government. For example, in Tanzania, the policy allows only for Kiswahili to be used as the LOI at the primary level, and an overwhelming majority of the materials surveyed were in Kiswahili, with very few published in any of the other 124 living languages (Annex I). The findings of the study may also reflect the implementation of language in education policies. For example, in Nigeria, the official policy has called for Nigerian languages to serve as the LOI in Nigeria since the 1970s. However, the policy is not widely implemented, and materials were found in only six of Nigeria's more than 500 languages (Annex G).

It is worth noting that the failure to identify titles in particular languages may also reflect the limitations of this study, including the sampling methodology and logistical and security constraints in reaching some regions. More information about country-specific constraints is presented in Annexes A–K.

Figure 1.   Number of languages represented in the surveyed titles

Country	0% ... 100%
DRC	30 14 179
Ethiopia	29 1 52
Kenya	34 25 1 32
Malawi	6 1 9
Mali	17 2 48
Mozambique	17 3 25
Nigeria	6 513
Senegal	18 2 19
Tanzania	2 122
Uganda	32 1 8
Zambia	18 1 2 27

■ Number surveyed in an African language of that country

  Number surveyed in an African language from a neighboring country

■ Number surveyed in a European language

  Estimated number of additional African languages of that country in which NO materials were encountered

Notes: Multiple responses were possible per title because an individual title could be written in two or more languages. Language origins are taken from the *Ethnologue* (Lewis, Simons, & Fennig, 2015a). Titles published in European languages—English, French, and Portuguese—were included in this study only if they were available as shell books, appeared bilingually alongside an African language, or in rare cases, were a reference book or teacher's guide for a reading curriculum in an African language.

4.1.3   Types of Materials

The data collectors searched for relevant books in two broad categories: textbook-related materials, including student reading textbooks or primers,[30] student workbooks, and teacher's guides; and supplementary non-textbooks, including materials classified as narratives, informational materials, references, or as poetry, songs, riddles, or proverbs.

Overall, 3,617 supplementary titles were identified, compared to 2,302 textbook-related titles, corresponding to a ratio of approximately 3:2. **Figure 2** shows the number of titles surveyed in these two broad categories by country. The proportions for each category varied widely from country to country. For example, the percentage of textbook-related titles was the lowest in Malawi (19 percent) and the highest in Nigeria (80 percent).

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[30] According to the Merriam-Webster Dictionary (www.merriam-webster.com), a textbook is "a book about a particular subject that is used in the study of that subject especially in a school," whereas a primer is "a small book for teaching children to read."

Figure 2. Number of titles surveyed by category

Country	Textbook-related titles	Non-Textbook/Supplementary Titles
DRC	273	185
Ethiopia	163	485
Kenya	284	725
Malawi	66	288
Mali	92	206
Mozambique	109	215
Nigeria	292	72
Senegal	145	315
Tanzania	82	305
Uganda	515	271
Zambia	281	600

(Axis: 0, 200, 400, 600, 800, 1000, 1200)

■ Textbook-related titles Non-Textbook/Supplementary Titles
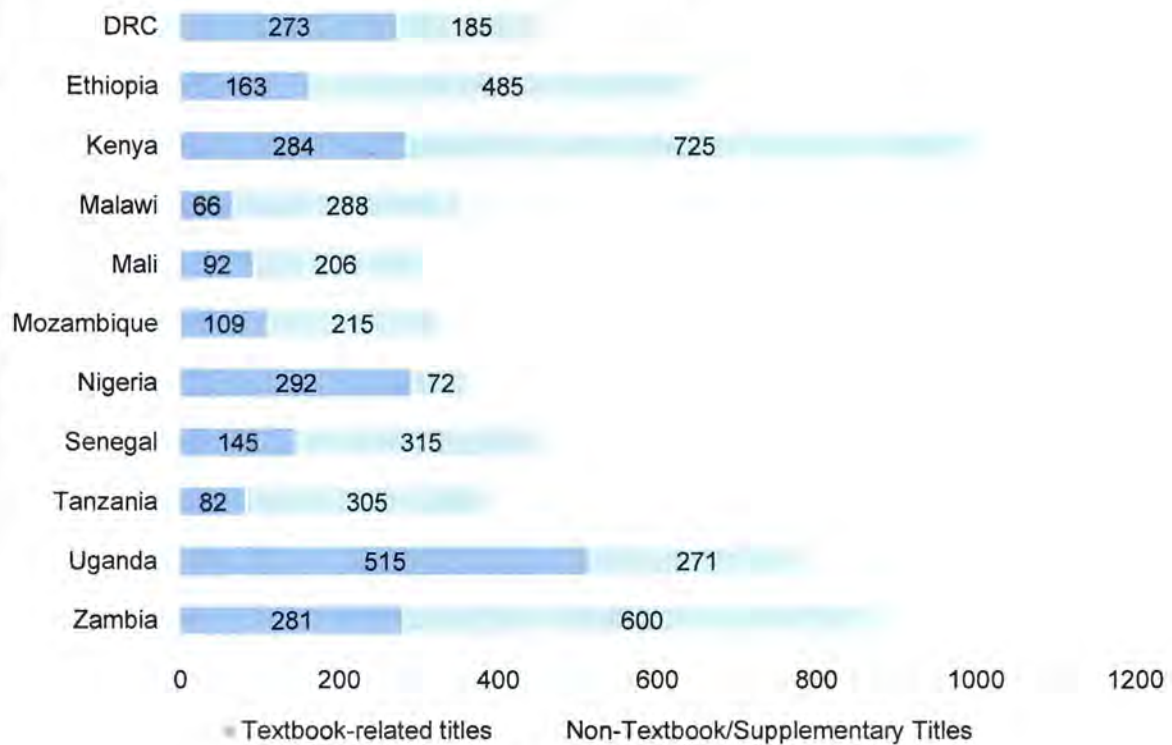
Among textbook-related materials, student literacy textbooks were the most common type overall (73 percent), and student literacy workbooks were the least common (seven percent); literacy teacher's guides constituted approximately one fifth (19 percent) of the textbook-related titles surveyed (**Figure 3**). These proportions varied by country. In the DRC, teacher's guides were more numerous than student textbooks and accounted for more than half of textbook-related titles (56 percent). Mozambique had the largest percentage of student workbooks (34 percent), but Zambia had slightly more in terms of raw numbers. Uganda had, by far, the most student textbooks (469), almost double that of the country with the next highest number (i.e., Nigeria, with 250).

Figure 3. A breakdown of titles identified as textbook related

Country	Student literacy textbooks	Student literacy workbooks	Literacy teacher's guides
DRC	118	2	153
Ethiopia	132	3	28
Kenya	208	24	52
Malawi	52	2	12
Mali	86	2	4
Mozambique	47	37	25
Nigeria	250	34	8
Senegal	88	20	37
Tanzania	80	2	
Uganda	469	1	45
Zambia	164	41	76

Number of titles

- Student literacy textbooks - Student literacy workbooks - Literacy teacher's guides
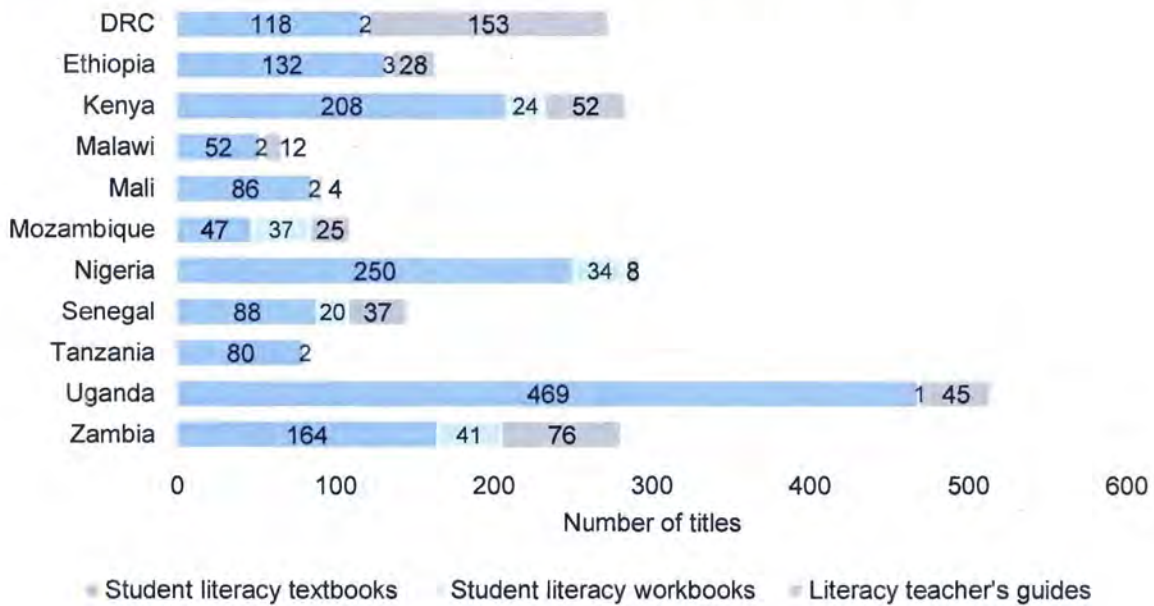
Among the supplementary titles (**Figure 4**), narrative texts (e.g., stories) were consistently and overwhelmingly the most common type (79 percent overall). Informational texts (e.g., non-fiction) were much rarer across the board, constituting only 13 percent of the supplementary inventory, and in some countries (e.g., Nigeria and Mali), they were almost non-existent.

Figure 4. A breakdown of titles identified as supplementary

Country	Narrative	Informational	Reference	Poetry, etc.
DRC	121	22	21	19
Ethiopia	378	37	12	7
Kenya	580	113	17	15
Malawi	183	101	3	
Mali	154	13	23	13
Mozambique	122	55	34	4
Nigeria	54	3	9	
Senegal	265	36	5	9
Tanzania	268	18	14	
Uganda	228	18	12	13
Zambia	498	59	39	4

Number of titles

- Narrative - Informational - Reference - Poetry, etc.
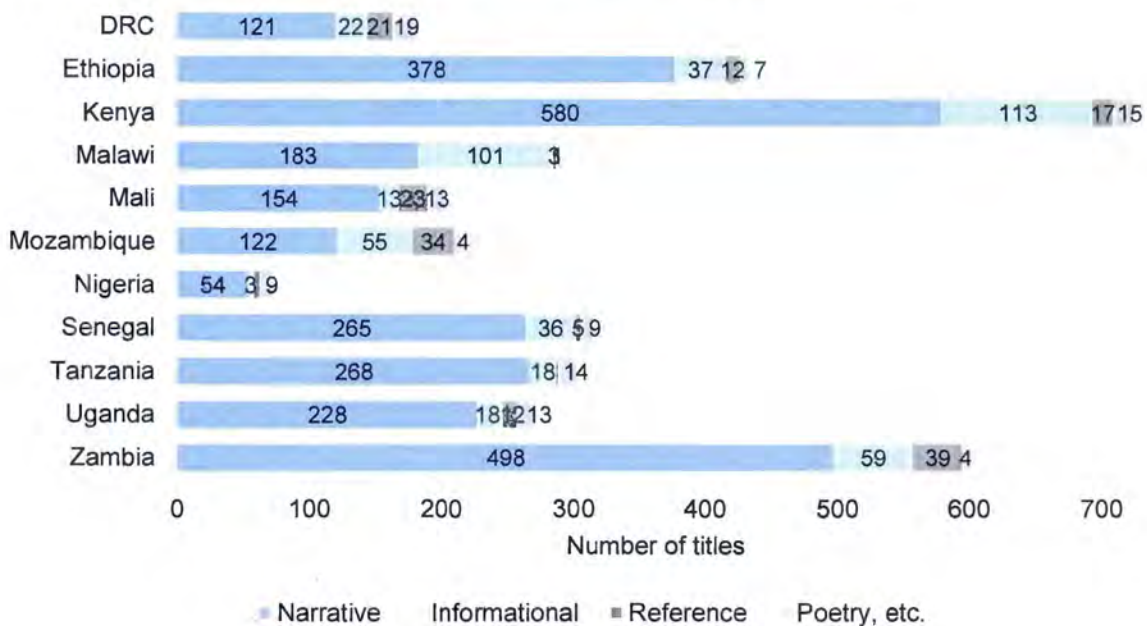
4.2 Usefulness of Available Materials for EGR Development

4.2.1 Pedagogical Components of Textbook-related Materials

Overall, 2,302 textbook-related materials were analyzed regarding their pedagogical components. The most common components were reading passages, which appeared in 67 percent of titles, and vocabulary development activities, identified in 60 percent of titles (**Figure 5**). The least common component was grammar instruction, which was found in only 20 percent of the titles overall.

Figure 5. Pedagogical components in textbook-related materials
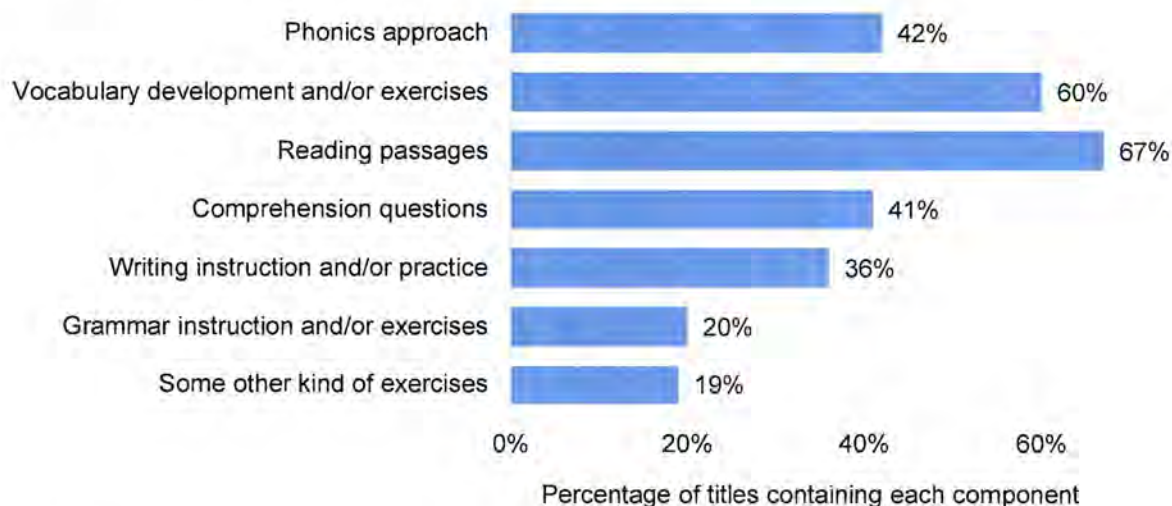
Note. Multiple responses per title were possible.

Phonics-based approaches to reading instruction, which focus on the connection between written letters and the sounds they represent in speech, have been shown to be effective in teaching students to read in alphabetic languages (Adams, 1990; Davidson, 2013). Phonics instruction may include exercises on sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds. An example of such an approach is presented in **Figure 6**.

Figure 6. **A sample lesson incorporating a phonics approach**

Note: Excerpted from *Kusoma Kiswahili*, a Kiswahili language Primary Grade 1 student textbook from the Primary Math and Reading (PRIMR) Initiative in Kenya.

Overall, approximately 42 percent of the textbook-related titles included a phonics-based approach to reading instruction, at least in part.[31] However, the inclusion of phonics in textbook-related titles ranged from as low as nine percent in Mozambique to as high as 70 percent in Nigeria.

Other components also varied between countries. **Table 6** shows the differences between countries in terms of the specific pedagogical components found in the textbook-related materials surveyed.

Table 6. **Percentages of Textbook-related Materials with Specific Pedagogical Components by Country**

Country	Phonics	Vocab-ulary	Reading Passage	Compre-hension Questions	Writing	Grammar	Other
DRC	46%	19%	93%	32%	17%	11%	15%
Ethiopia	71%	88%	81%	62%	79%	13%	17%
Kenya	35%	48%	25%	15%	31%	30%	36%
Malawi	41%	62%	79%	42%	41%	8%	50%

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[31] The presence of elements of phonics-based instruction in a textbook does not necessarily imply that it is being used within the context of a curriculum or program that promotes phonics-based instruction.

Country	Phonics	Vocab-ulary	Reading Passage	Compre-hension Questions	Writing	Grammar	Other
Mali	52%	27%	79%	39%	21%	23%	14%
Mozambique	9%	29%	81%	81%	73%	40%	5%
Nigeria	70%	79%	79%	70%	57%	36%	5%
Senegal	54%	39%	60%	39%	43%	26%	30%
Tanzania	20%	35%	38%	34%	33%	7%	54%
Uganda	27%	76%	64%	29%	12%	6%	20%
Zambia	37%	89%	66%	46%	47%	28%	6%
OVERALL	42%	60%	67%	41%	36%	20%	19%

4.2.2 Level

Designated Textbook Levels

The survey sample targeted materials that were potentially appropriate for Primary Grades kindergarten–3. Because leveling systems are not consistent across publishers and are based on criteria unknown to the data collectors, materials designated for higher primary grades were included if they appeared potentially useful for the lower grades as well.

Of the 2,302 textbook-related materials surveyed, 1,831 (80 percent) were explicitly labeled by the publisher for a specific grade or level (**Figure 7**). The highest percentages of titles were intended for Primary Grades 1 (36 percent) and 2 (25 percent). Approximately one fifth of the surveyed titles were labeled for Primary Grade 3 (17 percent), and one-tenth were labeled for Primary Grade 4 (11 percent). Materials designated for pre-primary were extremely rare (only four percent overall) and non-existent among titles surveyed in the DRC, Mali, Mozambique, and Zambia.

Figure 7. Publisher-designated levels for textbook-related materials

	Pre-Primary	Primary Grade 1	Primary Grade 2	Primary Grade 3	Primary Grade 4	Other Level
DRC		53	38	21	15	8
Ethiopia	11	48	34	35	28	6
Kenya	19	119	67	44		
Malawi	1	20	17	15	4	
Mali		22	26	5	1	13
Mozambique	13	5	47	23	18	
Nigeria	15	60	61	49	42	21
Senegal	13	28	22	8	11	7
Tanzania	4	26	28	31	5	
Uganda		169	117	40	26	10
Zambia		118	52	30	45	16
OVERALL	65	676	467	325	200	99

Legend:
- Pre-Primary
- Primary Grade 1
- Primary Grade 2
- Primary Grade 3
- Primary Grade 4
- Other Level

Note: This graphic only shows the numbers of textbook-related titles that were explicitly labeled for a specific level by the publisher. "Other Level" most often referred to designations used outside the formal sector or in adult literacy programs, such as "beginner", "intermediate", or "advanced". Although rare, multiple responses per title were possible.

Non-textbook Levels

Supplementary materials were not expected to be labeled for a particular grade level. Text level is a highly complex construct. Currently, more than 100 readability formulas exist for text level analysis in English. Most formulas rely on measures of semantic or syntactic difficulty (Davidson, 2013) that were either not available for the languages studied or too time consuming for the data collectors to analyze within the study's time constraints. Nonetheless, to obtain some indication regarding relative text difficulty, the maximum number of wpp was counted to serve as an approximate proxy. These counts were classified into the following five ranges to mirror the five levels in the similar model used by SAIDE's African Storybook Project[32]:

1. First words: 0–10 wpp;
2. First sentences: 11–25 wpp;
3. First paragraphs: 26–50 wpp;

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[32] More information about the five levels can be found at the following website: http://www.africanstorybook.org/browse-by-reading-level

4. Longer paragraphs: 51–75 wpp; and

5. Read alouds/advanced: More than 75 wpp.

Although the number of wpp is only one of many dimensions of the text level, these ranges provide a general method for ranking books from "less" to "more" advanced, especially within the same language, as can be seen by comparing the excerpts from two titles by the African Storybook Project in **Figures 8** and **9**.

Figure 8.   A sample page from a narrative in the 1–10-wpp range

Note: Excerpted from *Ng'ombe Wetu,* written by Ruth Odondi and illustrated by Rob Owen, © African Storybook Initiative and Molteno Institute, 2014.

Figure 9.   A sample page from a narrative in the 51–75-wpp range.

Note: Excerpted from *Anansi, Kunguru na Mamba,* a Ghanaian folktale illustrated by Wiehan de Jager, translated by: Mutugi Kamundi

It is helpful for learners to have an abundance of reading materials at all wpp ranges to support their progressively developing reading skills at each stage. As shown in **Figure 10**, relatively few titles were available for the earliest stage of reading development. Data concerning the wpp were recorded for 3,213 narrative and informational titles. Nearly one third of these titles (31 percent [1,005 titles]) featured more than 75 wpp, which is appropriate for readers who have already attained fluency. However, those with fewer wpp are more manageable for the earlier stages of literacy development, when emerging readers are just learning to decode, and their fluency is, therefore, low. Only 13 percent (408) of these titles were in the 51–75-wpp range (intermediate), followed by 14 percent (437) in the 1–10-wpp range (beginning). These proportions also varied widely by country. For example, Zambia had 106 titles in the 1–10-wpp range, whereas the DRC and Mali each had only two titles in this range, and Nigeria had zero.

Figure 10.   Number of narrative and informational non-textbook titles by maximum wpp
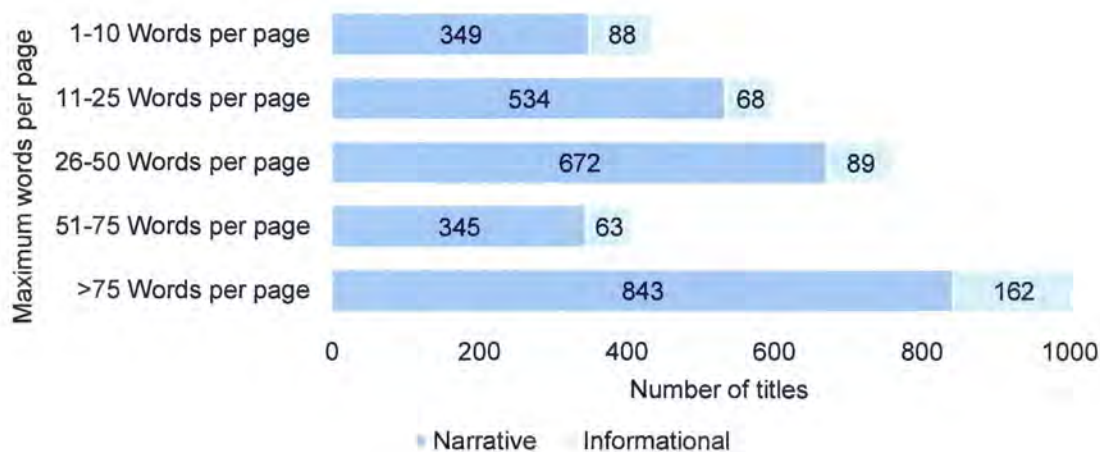
Note: This calculation was not performed for poetry or reference titles.

4.2.3 Illustrations

Illustrations, pictures, and graphics are common elements of early grade instructional and reading materials. Out of the 5,919 titles surveyed, 5,235 (88 percent) were illustrated. Most of the non-illustrated titles were teacher's guides and reference materials that were not designed for students. Overall, illustrations were almost evenly split between those in black and white (B&W) (2,410 [41 percent]) and those in all color (2,550 [43 percent]), with 275 titles (five percent) having a mixture of both (**Figure 11**). (The data are missing for one title.) The titles surveyed in Kenya, Tanzania, and Zambia were more frequently illustrated in color, whereas in all the other countries, the largest percentage of titles contained B&W images. The DRC also had the highest percentage of non-illustrated materials (38 percent).

Figure 11. Presence and type of illustrations

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
DRC		173				220			14	51	
Ethiopia		347				44		206			
Kenya	67	232	25		684						
Malawi	43	147		2	164						
Mali	74		162			10	52				
Mozambique	61	142		13	108						
Nigeria	31	165		52	116						
Senegal	34	359				8	59				
Tanzania	8	68	58	253							
Uganda	57	354		40	335						
Zambia	135	214	9	523							
OVERALL	684	2410		275	2550						

Not Illustrated ■ All B&W   Some B&W, Some Color ■ All Color
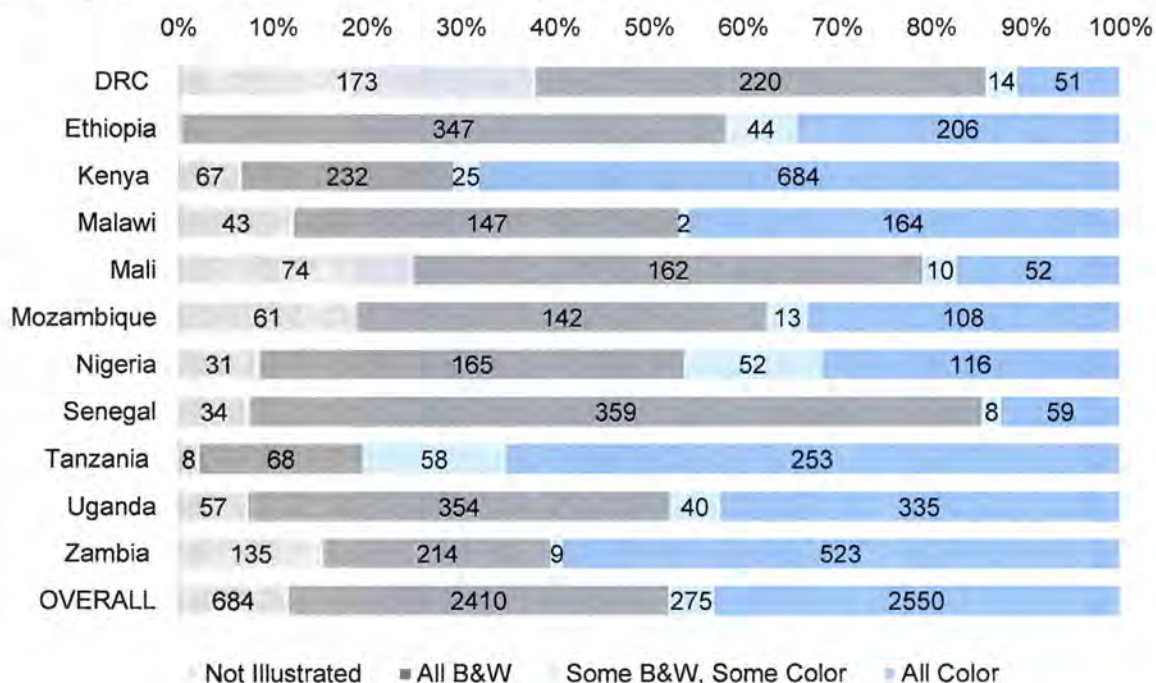
4.2.4 Content: Themes, Familiarity, Appropriateness, and Representation

Content Themes

Excluding teacher's guides and reference materials, the data collectors examined the content and/or illustrations of 5,298 titles for content themes. The data collectors skimmed the texts if they knew the language; if they did not know the language, they reviewed only the illustrations. The data collectors checked off the most prominent themes from a set list and could select any number of themes because no limits were set for the minimum and maximum numbers.

Of the titles evaluated, the most common themes were animals (2,089 titles [39 percent]), morals/values (1,982 titles [37 percent]), education/school (1,609 [30 percent]), family (1,518 [29 percent]), and home life (1,309 [25 percent]). In addition, a total of 409 (eight percent) of the titles examined for content were found to contain explicit religious content, although this also varied widely between countries. A large percentage of titles in the DRC (34 percent [98 titles]) and Malawi (27 percent [92 titles]) had explicit religious content, whereas in most of the other countries, very few titles with religious content were found (less than five percent).

Content Familiarity

The same titles were analyzed for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). The data collectors rated the content as "very familiar", "semi-familiar", or "mostly unfamiliar". Overall, 88 percent of the titles were judged to contain "very familiar" content for children, nine percent had "semi-

familiar" content, and only two percent contained "mostly unfamiliar" content. (The data collectors marked an additional 102 titles as "unable to evaluate".) No country diverged from this trend; the percentages of "very familiar" content ranged from 72 percent in the DRC to 97 percent in Zambia. Kenya had the highest number and percentage of titles with "mostly unfamiliar" content, but even in this country, only 43 titles (five percent) were identified.

Content Appropriateness

These titles were also analyzed for the presence of potentially sensitive content in the illustrations, including traumatic events, violence, smoking, nudity, or another known cultural taboo. No potentially sensitive content was found in the vast majority (89 percent) of the titles evaluated for this item.

The most commonly identified, although rarely found, type of sensitive content was a traumatic event, which was noted in three percent of the materials overall. The other categories were even rarer, each occurring in less than one percent of the titles. These trends were fairly steady across the board with few exceptions. Nigeria had the highest incidence of sensitive content noted (13 percent for a traumatic event).

Frequency and Equality of Representation

The data collectors examined the illustrations in a subset of the materials regarding the frequency and equality of roles of the people in the illustrations according to gender, ethnic or religious group identity, and disability. Excluded from these investigations were teacher's guides, reference materials, and titles that were not illustrated with humans or anthropomorphic animals. Therefore, the percentages presented in the following paragraphs are based on the subset of materials for which an evaluation was possible.

Whereas frequency counts are quantitative, the questions regarding equality of roles were inevitably subjective. The concept of equality is highly contextual, culturally relative, and fluid. For example, specific depictions of women performing domestic chores may be interpreted as sexist or demeaning in one culture (or sub-culture) but not in another. Therefore, to be portrayed with comparable skills, knowledge, accomplishments, and roles means that the sub-groups (e.g., genders or ethnic groups) were generally presented as social, intellectual, and moral equals. Thus, the sub-groups should participate in similar activities and exercise traditional, non-traditional, leadership, and supporting roles in similar proportions to one another. Additionally, no sub-groups should be exclusively portrayed in positions that are considered inferior, subservient, or demeaning for that sub-group. Finally, although stories may contain antagonists who perform "bad things" and are ultimately "defeated" by the protagonists, these characters should not be portrayed as representative of a whole sub-group.

Gender

The illustrations in titles containing characters with obvious genders were evaluated regarding frequency of representation of each gender. Materials containing mostly male characters or mostly female characters should not necessarily be interpreted as an affront to the excluded gender. For example, a story may have a male or female protagonist with very few other

characters, if any. Nonetheless, most of the titles evaluated for this item were found to have an overall balance in the representation of both genders, and this trend held across all countries. Ethiopia had the highest number of titles featuring illustrations containing primarily male characters (117).

Additionally, for the titles for which there was a sufficient basis for comparison, data collectors judged whether male and female characters were portrayed with comparable skills, knowledge, accomplishments, or roles. Again, in most cases, the genders were judged to be portrayed equally. The DRC had the highest percentage of titles judged to portray the genders unequally (13 percent), and Zambia had the highest raw number count (52).

Ethnic and Religious Group Identity

Similarly, the data collectors examined the illustrated titles regarding the frequency of representation of different ethnic and/or religious group members. Of titles examined, a majority in each country and 75 percent overall were deemed as not portraying characters with obvious ethnic or religious group identity markers.

Of the illustrations that portrayed characters with ethnic or religious group identity markers, the data collectors judged how those representations reflected the proportions of those ethnicities and religious groups within the target audience. Specifically, they answered the following question: For ethnic and religious groups that comprised more than 10 percent of the local population in the target audience, were these groups represented proportionally in the illustrations, or was one group represented to the exclusion of others?

Overall, of the titles evaluated, only five percent were judged to contain illustrations that portrayed members of one group to the exclusion of another group present in the target population. These findings may suggest that book producers are generally sensitive to depicting characters in an ethnically and religiously neutral manner. Although the DRC and Uganda had slightly elevated percentages of this response (nine percent each), for many countries (Ethiopia, Kenya, Mozambique, Senegal, and Tanzania), this response constituted one percent or less.

For the overwhelming majority of titles, the data collectors judged that there was an insufficient basis for comparison of the nature of the portrayal, if any, of ethnic or religious groups in the illustrations. Across all countries, of the rare titles for which this evaluation was possible, the data collectors judged that 85 percent portrayed different ethnic or religious groups with equal skills, knowledge, accomplishments, or roles.

Disability

The data collectors examined the illustrated titles regarding the frequency of representation of people with disabilities. People with disabilities are estimated to constitute, on average, 15 percent[33] of the world population (RTI International, 2015), and this value was used as the benchmark for being representative of reality. In contrast to the relatively encouraging results for gender, ethnicity, and religion, overwhelmingly, the materials surveyed lacked any illustrations

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[33] The benchmark was actually set at 10 percent based on the research available at the time when the survey instrument was designed. More recent research suggests that the actual percentage is closer to 15 percent.

of people with disabilities at all. People with disabilities appeared in just four percent of the titles evaluated and were portrayed in representative proportions in less than one percent of titles. This may constitute a gap that future literacy initiatives could address to establish more realistic and inclusive representation of people with disabilities.

Although illustrations of people with disabilities were rare, of the titles which portrayed people with disabilities at all, the data collectors judged that 73 percent portrayed them with skills, knowledge, accomplishments, and roles typically attributed to people without disabilities, similar to the example in **Figure 12**.

Figure 12.   A sample illustration featuring a person with a disability functioning in a role typically attributed to people without disabilities

Note: Excerpted from *Tiwerenge Nkhani 1*, a decodable reader in Chichewa from the USAID Early Grade Reading Activity in Malawi.

4.3   Feasibility of Reusing, Adapting, and Reproducing Available Titles

The main criteria for determining the feasibility of re-using, adapting, or reproducing existing materials were the copyright and the availability in digital format. It should be noted that neither of these factors is necessarily an impediment to the inclusion of a title in the repository; however, they do determine the level of effort involved in using existing content.

4.3.1   Copyright, Restrictions, and Permissions

Copyright specifically includes the rights to reproduce copies of the work, prepare derivative works based on the original piece, distribute copies to the public, and/or display and perform the

work publicly. The copyright is conferred automatically to the author[34] without the need for registration. A copyright can also be transferred—or often, licensed—but only through express assignment in writing (Zimmerman, 2015).

Based on the copyright status, the implications for the level of effort involved in using content from existing titles are as follows:

Titles for which all rights are reserved. Traditionally, copyright owners have used the phrase "All Rights Reserved" (usually on the copyright page of a book) to indicate that that they reserve all of the rights granted to them under the law. Parties interested in reproducing the work or creating derivatives of it—partially or in its entirety—are obligated to contact the copyright owner to request permission or purchase a copyright license. To request permission or initiate a copyright license negotiation, the first step is to successfully contact the copyright owner. Then, once contacted, the copyright owner can grant or deny permissions based on the request. Additionally, rights' negotiations take time, and depending on the negotiation, licenses may need to be renegotiated after their expiration date.

Titles in the public domain. Copyright protection is limited in duration. Once a copyright expires, the work becomes a part of the public domain and, therefore, public property. An author's exclusive rights over a work remain valid 70 years after his or her death (life plus 70 years), although the term of duration varies between countries depending on national copyright legislation (see **Table 7** for the copyright protection terms for each of the 11 countries.) If publishers registered in one country want to publish the work of an author from another country, then public domain will be determined by the copyright laws of the author's country of birth and/or by a copyright treaty between the two countries. A work can also become a part of the public domain if the copyright owner voluntarily forfeits his or her rights (Copyright Clearance Center, 2015; Zimmerman, 2015). Therefore, although titles under public domain are free to use, verifying whether a work is in the public domain requires knowing the author's country and date of birth and the country-specific legislation. Data about authors' countries and date of birth was not collected because of anticipated difficulties; therefore, the public domain statuses of the surveyed titles cannot be verified.

Titles with a Creative Commons license. Creative Commons licenses are legal tools of international use that streamline the process through which copyrighted content can be searched, discovered, and used. A variety of Creative Commons licenses grant free (gratis) rights to re-use licensed content or to derive new content from it. The licenses differ in the specific rights granted ("some rights reserved") and the conditions under which they can be used. Works under a Creative Commons license can easily be searched online and used automatically according to the terms of the license without the need to contact the copyright owner (Creative Commons, 2015). Titles with a Creative Commons license are the easiest to re-use and adapt; because the conditions are clearly pre-stated, there is no need to contact the copyright owner, and the available rights are gratis.

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[34] With a few exceptions, if a work is commissioned or made for hire, then the copyright belongs to the employer or the entity that commissioned the work.

Titles for which there is no explicit statement on copyright owner and permissions or licenses. In the absence of information about the copyright owner or clarity regarding the conditions under which the existing content can be adapted or disseminated, materials cannot be used until the copyright owner is found and contacted. Searching for this information may require many months and may ultimately be fruitless.

Table 7.   Copyright legislation and duration of copyright protection

Country	Legislation on Copyright	Duration of Copyright Protection
DRC	Ordinance-Law No. 86-033 of April 5, 1986, on the Protection of Copyright and Neighboring Rights (DRC, 1986)	Life + 50
Ethiopia	Copyright and Neighboring Rights Protection Proclamation No. 410/2004 (Federal Democratic Republic of Ethiopia, 2004)	Life + 50
Kenya	The Copyright Act, 2001 (Kenya, 2001)	Life + 50
Malawi	Malawian Copyright Act of 1989 (Malawi, 1989)	Life + 50
Mali	Law No. 08-024 of July 23, 2008 laying down the Regime of Literary and Artistic Property in the Republic of Mali (Mali, 2008)	Life + 70
Mozambique	Law No. 4/2001 of February 27, 2001 (Mozambique, 2001)	Life + 70
Nigeria	Copyright Act, Chapter C28, as codified 2004 (Nigeria, 2004)	Life + 70
Senegal	Law No. 2008-09 of January 25, 2008 on Copyright and Related Rights (Senegal, 2008)	Life + 70
Tanzania	Copyright and Neighbouring Rights Act, 1999 (United Republic of Tanzania, 1999)	Life + 50
Uganda	The Copyright and Neighbouring Rights Act, 2006 (Uganda, 2006)	Life + 50
Zambia	Copyright and Performance Rights Act, 1994, Act No. 44 of 1994 (Zambia, 1994)	Life + 50

The survey results suggest that issues of copyright may be one of the most laborious aspects of implementing a Global Reading Repository because most titles would require some form of permission request or rights negotiation. **Table 8** shows that relatively very few titles (680 [12 percent]) contained explicit statements granting permissions for re-use under specific conditions, with only 529 (nine percent) having a Creative Commons license. The survey results show that Creative Commons licensing is not yet a widespread practice in these countries. The unusually high percentages in Kenya and Uganda can be attributed to the numerous Creative Commons-licensed titles made available in Kenyan and Ugandan languages by SAIDE's African Storybook Project[35], and that in Nigeria is the result of the titles provided by the American University of Nigeria.

Overall, 4,547 (77 percent) of the titles contained a copyright symbol. Whether the remaining 23 percent of titles are in the public domain cannot be determined at this time because information about each author's country and date of birth was not collected in this survey. The omission of

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[35] For more information about SAIDE's African Storybook Project, see http://www.africanstorybook.org.

explicit statements regarding permissions was widespread in the investigated sample (2,741 [46 percent]). However, although only 2,391 titles [40 percent] contained an explicit statement equivalent to "All Rights Reserved", it seems plausible that all copyrighted materials without an explicit statement about permissions are also "All Rights Reserved".

In general, a large number of titles contained no information about copyright or permissions. The absence of clear information on the status of rights and permissions could signal producers' lack of knowledge about book sector best practices or the absence of clear copyright legislation. Unclear or unenforced copyright legislation[36] makes a country more vulnerable to book piracy. Although investigating the prevalence of book piracy was beyond the scope of this study, reports from the country data collection teams consistently alluded to piracy as a challenge to their efforts (Annexes A–K).

Table 8.   Copyrights and statements of restrictions or permissions on re-use

Country	Copyright Symbol	Statements on Permissions			
		"All Rights Reserved" Statement	Creative Commons License	Statement Granting Permissions	No Explicit Statement on Permissions
DRC	46%	2%	<1%	<1%	96%
Ethiopia	68%	46%	0%	2%	40%
Kenya	89%	51%	24%	1%	23%
Malawi	82%	25%	7%	2%	65%
Mali	53%	38%	<1%	<1%	60%
Mozambique	15%	1%	1%	13%	85%
Nigeria	93%	75%	12%	0%	13%
Senegal	85%	10%	0%	3%	87%
Tanzania	94%	93%	0%	0%	7%
Uganda	86%	42%	27%	8%	21%
Zambia	86%	43%	0%	0%	57%
OVERALL	**77%**	**40%**	**9%**	**3%**	**46%**

Notes. For two percent of the titles, the questions concerning an explicit statement were marked as "unknown/unable to evaluate", for example, when the front matter was missing or when the data collectors did not understand the language of publication.

4.3.2 Medium

A digital repository of books will require that all titles be available in digital form, or soft copy. Less than one fourth of the titles were available in soft copy. Across all countries, 5,030 books

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[36] "Although many African countries have enacted copyright legislation and are signatories to at least one of the international copyright or intellectual property conventions, very few actually take steps to enforce the instruments, and even fewer have regulatory authorities or organisations to promote copyright or intellectual property understanding" (Reiner, 2011).

(85 percent) were surveyed in hard copy, and 1,248 books (21 percent) were surveyed in soft copy. Of these hard- and soft-copy titles, only 359 books (six percent) were known to be available in both media. However, because many of the titles surveyed were published after 2000 (see Section 4.4 regarding the relevant findings), there is a strong possibility that many of the hard-copy titles were printed from a digital file. The countries with the largest numbers of available soft copies were Kenya (520), Uganda (261), and Ethiopia (207). As previously mentioned, a significant number of the titles in Kenya and Uganda were from SAIDE's African Storybook Project. Of the soft copies surveyed, only five were from the DRC, and one was from Zambia.

Again, the availability of soft-copy titles will affect the effort needed to make titles readily accessible for re-use and adaptation. Titles that are already available digitally will likely need to be exported to the preferred format for easy re-use and/or adaptation, although this is yet to be determined. Titles that are only available in hard copy will need to be converted into a digital format, which will likely include creating digital versions of the layout.

4.4 Landscape of the Production of Children's Reading Materials in African Languages

Data collected through the survey also provided insight regarding the overall landscape and historical trends of the production of reading materials for young readers in African languages.

4.4.1 Primary Producers of Materials in African Languages and Historical Evolution of Production

According to studies that refer to the history of the book sector in Africa (Diallo, 2011; Ogechi and Bosire-Ogechi, 2002; Reiner, 2011; Read, 2015), Christian missionaries were pioneers in the production of reading materials in African languages, beginning as early as the 19th century. However, the growth of local publishing ventures focused on African languages is a recent phenomenon that began approximately 20 years ago. In the interim, books in Africa were imported for many years but only in dominant colonial languages (Askerud, 1997). Then, in the late 1960s and early 1970s, in the aftermath of independence, in several countries[37], the states led ambitious projects for the publication of instructional materials in (usually all major) national languages. In most cases, these projects were abandoned before materials were published in all languages. By the 1980s, publishing in sub-Saharan Africa had become dominated by large international publishers, which began to create local subsidiaries until a local industry became consolidated in the 1990s. However, these large, profit-driven publishers have focused primarily on dominant world languages, for which there is a much larger market. UNESCO's Education for All (EFA) goals, which were launched in 2000, galvanized support from bilateral and multilateral donors, several of which have directly invested in the publication of instructional materials in local African languages in recent years.

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[37] These countries include Guinea, which was not part of this survey (Diallo, 2011), and Kenya (Ogechi and Bosire-Ogechi, 2002). Details are available in the country reports in Annexes A–K.

The survey results confirm the historical trajectories in the production of publications in African languages. Most titles surveyed (4,451 [75 percent]) were published after 2000, and nearly half of all titles (2,671 [45 percent]) were published between 2010 and 2015.

The survey findings indicate that commercial publishers and non-profit organizations[38] are the leading producers of EGR materials. Overall, commercial publishers published 2,338 titles (40 percent), with non-profits accounting for 1,986 (34 percent). Titles registered as having been produced by domestic government entities represent 15 percent (908 of all titles surveyed), although almost half of these titles (42 percent) were co-produced with bilateral or multilateral donors. **Figure 13** presents the findings on production per publisher type and decade.

Figure 13.   Number of titles per publisher type and decade
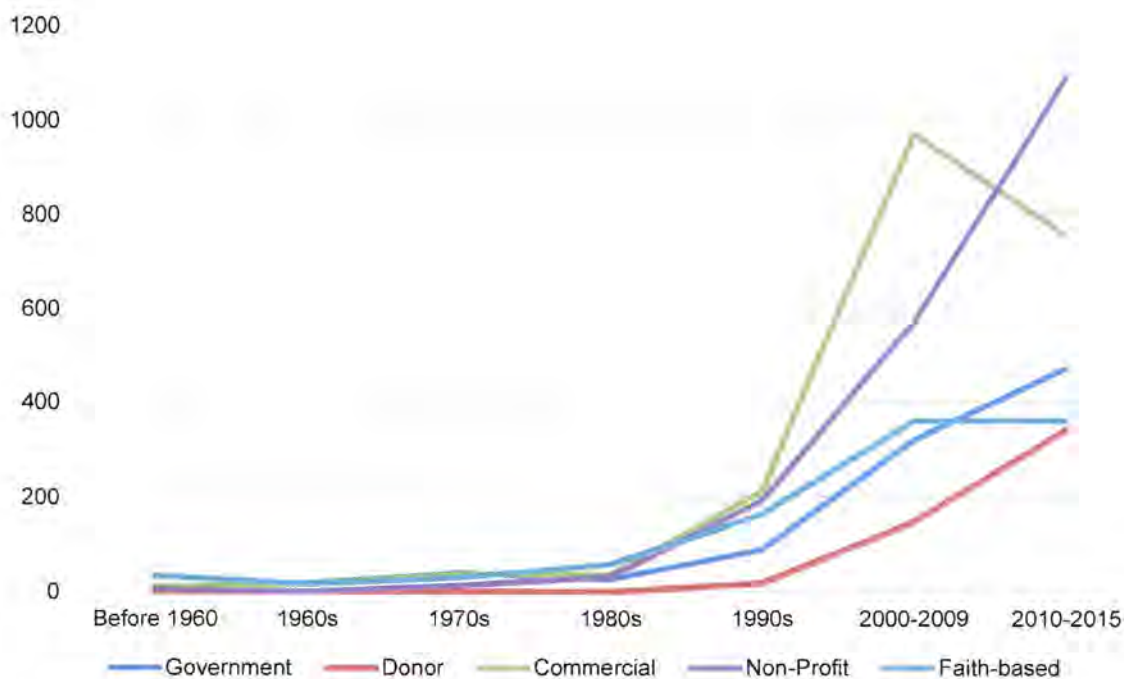
On a country-by-country basis, the results indicate that despite regional averages, with a few exceptions, commercial publishing is more robust in Anglophone countries than in Francophone and Lusophone countries, where supply is dominated by non-profit organizations and FBOs and is, thus, primarily subsidized. **Figure 14** presents the production numbers by type and country.

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[38] Multiple categorizations were possible per publisher or producer, and titles may have been registered as having multiple publisher types. Thus, approximately one third (28 percent) of titles were classified as having been produced by a non-profit organization and a FBO because FBOs are not for profit.

Figure 14. Production by publisher type and country

	DRC	Ethiopia	Kenya	Malawi	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda	Zambia
▪ Government	16	107	176	119	63	89	11	37	2	25	263
▪ Commercial For-Profit	8	223	452	42	122	29	297	27	354	325	459
Non-Profit	162	169	374	37	86	184	46	410	30	362	126
▪ Faith-Based	340	176	68	137	17	20	0	278	1	97	17

▪ Government   ▪ Commercial For-Profit   Non-Profit   ▪ Faith-Based
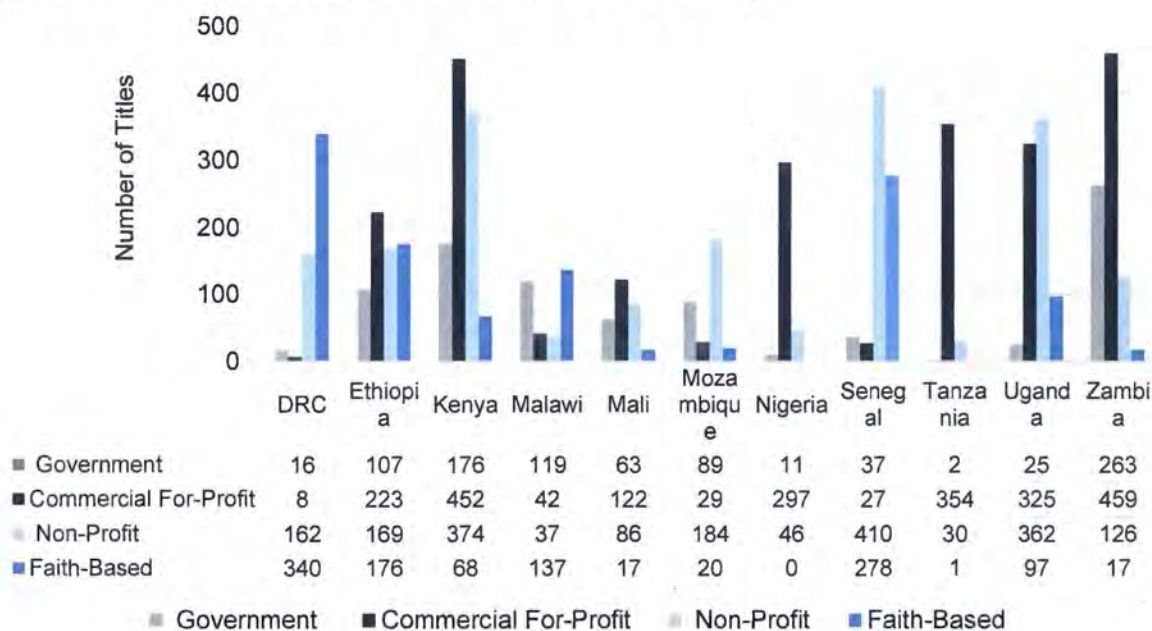
Notes: Multiple categorizations were possible per publisher or producer, and titles may have been registered as having multiple publisher types. Additional publisher categories not shown here included bilateral and multilateral donors, academic, self-published, and unknown. These data are presented in the country reports in Annexes A–K.

4.4.2 Price

Because of the nature of the data collection strategy, in which data collectors accessed materials directly from the publishers or in libraries but not primarily from booksellers, price data were collected for only a small subset (less than one fourth) of the hard-copy titles. Because this subset was so small, any calculation of the average price cannot be considered to accurately represent the whole set. Moreover, the average prices calculated based on this survey differ from the results of another survey on textbook prices in Africa from 2007, as cited by Read & Treffgarne (2010). Nonetheless, **Table 9** presents the price data for the two most common title sub-types: student textbooks and narrative supplementary materials.

Table 9. Average Prices of Hard-copy Student Textbooks and Narrative Supplementary Materials

Country	Student Textbooks			Narrative Supplementary Books		
	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in U.S. Dollars (USD) for Non-free Materials	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD for Non-free Materials
DRC	0	14	$4.67	0	16	$3.12
Ethiopia	3	41	$1.27	2	137	$0.89
Kenya	2	131	$2.78	6	239	$1.65
Malawi	2	11	$2.40	0	18	$1.24
Mali	—	—	—	—	—	—
Mozambique	—	—	—	—	—	—
Nigeria	16	216	$2.20	—	—	—
Senegal	0	22	$2.02	0	38	$1.58
Tanzania	0	72	$3.25	0	201	$2.43
Uganda	18	180	$1.91	0	10	$1.21
Zambia	—	—	—	—	—	—
OVERALL	41	684	$2.35	8	660	$1.74

Note: Subsets with data on fewer than 10 titles have been omitted from the overall calculation and are indicated by an em dash in the table. The exchange rate used for each currency can be found in that country's report (Annexes A–K).

ISBN

The ISBN is a standard published by the ISO. ISO standards are used in various industries and serve to "ensure that products and services are created and used safely, efficiently and effectively by establishing the requirements and specifications which should be consistently applied in each case" (International ISBN Agency, 2015). Each title (or edition of a title) published in a particular country should be registered with the national ISBN agency by providing basic data on its publication. The ISBN agency will then issue a unique 13-digit number and a corresponding bar code for each individual title or edition.

Although requesting an ISBN is not a requirement for printing, sales, or distribution, and it does not protect a copyright, the ISBN is an important support for the circulation and marketing of books, facilitating cataloguing titles, tracking book circulation, and maintaining up-to-date statistics about the book sector in a given country. Furthermore, it can be argued that the ISBN is an indicator of the degree of development of the book sector in a particular country. Indeed, the absence of a national ISBN agency or low rates of title registration suggests a lack of

standardization and poor knowledge (or application) of best practices of the book industry worldwide.

Out of the 11 countries included in this survey, three have no national ISBN agency (the DRC, Mozambique, and Senegal)[39] (International ISBN Agency, 2015). Overall, only 2,771 (47 percent) of the titles surveyed had an ISBN. Greater adherence to the standard was observed in Tanzania (354 titles [91 percent]), Zambia (723 titles [80 percent]), Nigeria (289 titles [79 percent]), and Malawi (232 titles [66 percent]). Excluding countries without an ISBN agency, Ethiopia (201 titles [34 percent]) and Uganda (283 titles [36 percent]) showed the lowest adherence to the ISBN standard.

5 Conclusions

The findings of the DERP Survey of Children's Reading Materials in African Languages in Eleven Countries [Reading Materials Survey] provide a clearer picture of the current state of affairs of local language publishing in sub-Saharan Africa than was previously available. Some of the most salient findings of this survey are as follows:

- The total number of languages in which materials were found (200) exceeds the number of African languages with well-developed orthographies (186; Lewis, Simons, & Fennig, 2015a). Although this finding does not imply that titles existed for all languages with a strong written tradition, it is nonetheless clear that titles are available in an unexpectedly large number of languages. Additionally, although titles were concentrated in a small number of (usually widespread) languages, the existence of titles in a wide range of languages is still a positive finding of this survey.

- A correlation was found between the number of titles recorded for a particular language and the degree of implementation of the language in education policy. However, the number of titles per language was not always proportional to the language group size.

- Non-profit organizations, FBOs, and international development agencies play a very important role in the production of reading materials in African languages and are largely responsible for the availability of titles in more languages than anticipated. Their contributions also serve to explain why some smaller languages may have an unexpectedly large number of titles. These organizations fill gaps in the supply that would otherwise not be covered by commercial publishers because of the low profitability of publishing in languages that are either too small or not yet stable in written form. However, commercial publishers account for more than one third of the total supply (39 percent), at least according to the sample of this survey.

- Although titles are available for all early primary age or grade levels, the production of titles for the early stages of reading development is notably lower than that for more advanced levels. This finding probably reflects both a lack of emphasis on pre-primary

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[39] The DRC and Senegal are covered by the ISBN agency in France; Mozambique is covered by the ISBN agency in Portugal.

education in the sampled countries and the need for a better understanding of how to develop progressively difficult texts that children can read.

- Overall, the findings indicate that the content of most titles is potentially useful for supporting EGR development. One of the major assets of locally produced materials targeting a local audience is the familiarity and cultural relevance of the content. Additionally, few instances of potentially sensitive content (e.g., violence or traumatic events) were found in the surveyed titles. The materials were, for the most part, judged as positively representing women and girls. However, a marked absence of people with disabilities was observed in the analyzed titles.

- A more in-depth evaluation of materials that "rise to the top" as a result of this survey will nonetheless be necessary to determine their real value for supporting EGR instruction. The results regarding the portrayal of minority ethnic and religious groups indicate that this was a difficult aspect to evaluate because differences between groups were apparently not readily perceived based on the illustrations. Likewise, although the survey collected information about the presence of specific pedagogical components in textbooks, more in-depth research is required to determine whether the scope and sequence, level, and methodologies are suitable for early grade students.

- The use of Creative Commons licenses is not yet widespread in sub-Saharan Africa. However, SAIDE's African Storybook Project stands out as a major innovator in supplying high-quality materials that can be easily adapted and shared through the use of Creative Commons. Most other titles are "All Rights Reserved", implying that expanding access to their contents may entail additional investments of time and funds.

- Overall, a large proportion of the titles included in the survey sample lack adequate labeling regarding copyright owner and conditions for re-use or adaptation. The lack of adherence to standard conventions for sharing information on copyright and permissions for re-use, along with the low registration of titles with national ISBN agencies, indicates that producers of materials may not perceive any benefit in applying international standards to the production of printed materials. Book piracy was consistently cited by country research teams as a challenge during data collection because differentiating between legitimate and pirated copies of titles was not easy.

These conclusions are based on a selective analysis of data points to examine the three focuses of this report: availability based on language and book type, suitability for early grade children, and feasibility of the re-use and adaptation of titles. Nonetheless, the full data set of the DERP Reading Materials Survey allows for further analysis and could help answer many more questions about the current supply of reading materials in African languages. Additionally, the individual title data, along with photographs of the covers and sample interior pages, could be leveraged to create a searchable online database of titles.

The findings of the DERP Reading Materials Survey are not only beneficial to parties immediately interested in the findings, such as USAID and its partners in the Global Book Fund and Global Reading Repository, but also to national governments and other development

organizations. Local for-profit and not-for-profit publishers may also identify opportunities for developing titles to fill gaps in the current supply. Therefore, the simple act of implementing this survey may have already set some powerful wheels in motion for increasing the supply of high-quality, easy-access EGR materials in African languages.

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Glossary

"Big book"—An oversized children's book intended to be read aloud by a teacher to the entire class.

Decodable readers—These are aligned to an early literacy curriculum or sequence of presentation of letter sounds and contain only or mostly words that students should be able to sound out ("decode") at a particular point in that curriculum. Decodable readers, which are sometimes called decodable stories or texts, often focus on one or more particular letter sounds or patterns, either explicitly or implicitly, by including many words with those spellings.

Early exit transitional—A model for language use in education in which L1 instruction is provided for a few years before transitioning (usually very abruptly) to instruction in a foreign language (i.e., English or French) before the end of primary school.

First language (L1)—The language that an individual speaks best, often referred to as a mother tongue or home language. In the context of education, L1 refers to the language that students understand and speak proficiently when they first enter school, which make that language particularly well suited for learning both concepts and content in the early grades. Individuals tend to have a lifelong advantage in proficiency in the L1 learned at home through natural interactions with caregivers, family, friends, and community members. People living in multilingual contexts may have more than one L1, and they may have a greater proficiency in one language or another at different points in their lives and in different contexts.

Foreign language—A language that is not spoken in an individual's immediate environment and to which he or she would not have been exposed through familiar media. In many African countries, former colonial languages (English, French, and Portuguese) are often foreign languages to a large proportion of the population, particularly those in rural areas.

Informational text—Prose writing that informs the reader about a topic in the natural or social world that is based on facts without using storytelling devices. Examples of informational texts are textbook chapters that describe real-world phenomena or brochures about a place or an organization. For example, texts describing malaria transmission, volcanoes, or dinosaurs (assuming the absence of a story structure) fit under this category.

L1-based instruction—A model for language use in education in which children's L1, or mother tongue, is the LOI throughout most, if not all, levels of school. L1-based instruction is the most common LOI model used in much of the world (Europe, the United States, Latin America, and parts of Asia) and is highly successful in producing strong literacy and learning outcomes in general, along with excellent foreign language learning. This model allows children to learn in a familiar language, usually through the tertiary level, with foreign languages taught by specialist teachers.

Language of instruction (LOI)—The language used to teach curricular material. Teachers may use more than one LOI intentionally throughout the day as part of a bilingual or multilingual program. In most of the literature, the term "LOI" is used interchangeably with "medium of instruction"; however, LOI is used in this report for consistency.

Language of wider communication (LWC)—A language used as a common means of communication between different language groups, sometimes referred to as a lingua franca. For some speakers, the LWC will be their L1; for other speakers, it will be an additional language (e.g., Wolof in Senegal, Amharic in Ethiopia, or Kiswahili in Kenya).

Late exit transitional—A model for language use in education 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.

Literacy—The skills and practices of reading and writing, which are the concrete forms of a language in which one communicates. Reading combines decoding (the association of written symbols with sounds) with meaning-making (the understanding of and interaction with what is decoded). Writing is the productive skill of encoding sounds into symbols to create meaningful communication that others can read.

Narrative text—Prose writing that tells a story, which may be completely fiction (imagined) or based on fact. Elements that are basic to narrative text include the following: setting, characters, plot, conflict, and a resolution/ending. All narrative fiction (e.g., stories, folk tales, fairy tales, fables, myths, and legends) fit under this category. Texts that tell the story of someone's life (biography) or retell an event from history or the Bible using storytelling devices, such as characters and plot, also fit under this category.

National language—In the context of this report, the term "national" language refers to the endoglossic (indigenous) languages that have been accorded a special, recognized status by government decree in addition to the "official" language. The sanctioned uses of a "national" language may or may not overlap with those of the "official" language. A language may be named as both "official" and "national." In many, but not all, cases, the African languages with the largest speaker populations are chosen as the "national" languages.

Official language—In the context of this report, the term "official" language refers to the languages that have been sanctioned by government decree (usually in the Constitution) for use by the government in its official business, including in the administration, legislature, and courts. There may be more than one official language, and it may be endoglossic or exoglossic.

Orthography—The rules for the representation of the sounds of a language through written symbols or the rules of the writing system.

Phonics approach—This approach focuses on the connection between written letters and the sounds they represent in speech. A phonics approach may include exercises on sound recognition and manipulation, blending sounds into syllables or words, segmenting syllables and words into individual sounds, and others.

Reference text—A dictionary, glossary, or reference grammar text (a technical, linguistic analysis of a language).

Second language (L2)—A language that someone learns in addition to his or her L1. A L2 may be learned formally (at school) or informally (such as by working in a market).

Shell book—A book intended and authorized to be translated and adapted for use in other languages.

Annex A. Summary of the Early Grade Reading Materials Survey in the Democratic Republic of the Congo

Geography and Demographics

Size:	2,344,858 square kilometers (km²)
Population:	79 million (2015)
Capital:	Kinshasa
Urban:	43% (2015)
Administrative Divisions:	26 provinces
Religion:	70% Christian 10% Kimbanguist 10% Muslim 10% Other

Source: Central Intelligence Agency (2015).
Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female		
Adult (aged >15 years)	77%	89%	66%	2013 Primary School Age Population (aged 6–11 years):[a]	11 million
Youth (aged 15–24 years)	86%	92%	80%	2013 Primary School GER:[a]	113%, up from 53% in 1999
				2013 Pre-primary School GER:[a]	4%, up from 1% in 1999

Sample EGRA Results:[b]	Language:	French	Oral Reading Fluency:	Mean: 17.5 (boy)/23.5 (girl) correct words per minute
	When:	2014		Standard deviation: 2.4 (boy)/2.0 (girl)
	Where:	(former[c]) Equateur Province		30% zero scores
	Who:	208 students in P4	Reading Comprehension:	Fewer than 5% reading with ≥80% comprehension
				69% zero scores

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P4 = Primary Grade 4. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: RTI International (2015).
[c] In June–July 2015, the country's 10 provinces were subdivided into 26 provinces. This was the name of the province at the time of data collection.

Language

Number of Living Languages:[a] 210

Major Languages[b]	Estimated Population[c]	Government Recognized Status[d]
French	6,080,000 (L2) (2007)[e]	"Official" language

Kikongo	3,000,000 (L1) (1982) 5,000,000 (L2)	"National" language
Lingala	2,040,000 (L1) (2000)	"National" language
Tshiluba (Luba-Kasai)	6,300,000 (L1) (1991) 700,000 (L2)	"National" language
Swahili (Congo)	Few L1 speakers; 9,100,000 (L2) (1991)	"National" language
Kituba	4,200,000 (L1) (1990) 800,000 (L2)	Other large LWC
Bangala	Few L1 speakers; 3,500,000 (L2) (1991)	Other large LWC
Ngbaka	1,010,000 (L1) (2000)	Other large LWC
Tetela	750,000 (L1) (1991)	Other large LWC

Notes: L1 = first language; L2 = second language; LWC = language of wider communication.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate International Organization for Standardization (ISO) 639-3 codes are given in parentheses.
[c] Source: Lewis et al. (2015). The date of the speaker population estimate is provided in parentheses.
[d] Source: Article 1, Section 1 of the Democratic Republic of the Congo Constitution.
[e] The Organisation Internationale de la Francophonie (n.d.) estimates that the L2 French speaker population in the DRC is approximately 33 million.

Democratic Republic of the Congo Findings in Brief:

The education policy of the Democratic Republic of the Congo (DRC) recommends instruction in one of four national languages or "the language of the locality" during the first six years of primary school, with a transition to French thereafter. Data on the level of implementation of this policy are sparse. The study surveyed 458 titles in the DRC. Materials were found in a large variety of languages, including and in addition to the four national languages, but with uneven distribution among them. Only 46 percent of the titles were copyrighted, and only one percent explicitly granted permissions for reuse under certain conditions. In contrast to other countries in the study, more textbook-related materials were found than supplementary in an approximately 3:2 ratio. In addition, more teacher's guides were found than student textbooks; religious content was featured more often; and the inventory was much older on average, with fewer illustrated titles. Although a high percentage of the textbook-related titles were designated for Primary Grade 1, supplementary titles suitable for the earliest levels of literacy were extremely rare. Faith-based and nonprofit publishers overwhelmingly dominated the production of the materials surveyed.

1. Language in Education Policy in the DRC

The Constitution of the Democratic Republic of the Congo (DRC) recognizes French as the official language and Kikongo, Lingala, Tshiluba, and Swahili (Congo), as the four national languages (Article 1, Section 1 of the Democratic Republic of the Congo Constitution). The DRC has long recognized Congolese languages as important to the success of early literacy education. Officially, the medium of instruction must be one of the four national languages or the language of the locality during the first six years of primary school; French is to be used thereafter (Loi-Cadre No 14/004 de l'Enseignement Nationale de 2014). As recently as February 2015, pedagogical experts from National Pedagogy University continued to encourage the use of

the Congolese languages in education as a means to raise the academic levels of students across the country. In addition, the Minister of Culture and Arts recommended adding more languages than those already in use (Radio Okapi, 2015). Although the data on language use in education are sparse, instruction in the national languages is not universally implemented. Several factors potentially contribute to this lack of implementation of the official policy, including the low number of textbooks available in Congolese languages, a lack of training for teachers to teach in those languages, and attitudes favoring the use of French as more prestigious.

The four national languages are not the home languages for many speakers. For example, in the Sankuru Province (formerly the Kasaï-Oriental Province[1]), where the recognized national language is Tshiluba, Tetela is spoken more widely than Tshiluba in many districts. In other provinces where the national language and the language of the locality may differ, literacy in those languages is sometimes supported by nongovernmental initiatives. For example, in the Équateur, Sud-Ubangi, Nord-Ubangi, Mongala, and Tshuapa Provinces (all formerly the Équateur Province), Lingala is the national language, but reading guides, mathematics books, and other learning materials have been created and published in Ngbaka, Ngbandi, and Mono by the Association Congolaise pour la Traduction de la Bible et l'Alphabetisation—Sukia Boyinga (ACOTBA-SUBO, the Congolese Association for Bible Translation and Literacy—Conquer Ignorance). SIL International, known as Wycliffe in country, has similar programs in place. The government does not prohibit these literacy programs.

In short, although authorities support the use of the Congolese languages as the medium of instruction in early primary schools, the policy does not receive enough tangible support to become a reality.

2. Data Collection

Given the vastness of the national terrain, the data collectors knew that they would be unable to physically visit every province during the limited data collection period, so select provinces were prioritized for strategic reasons. The Kongo-Central Province (the Bas-Congo Province at the time) was selected because of its proximity to the capital and reputation for well-developed local language education. The Sankuru Province (formerly the Kasaï-Oriental Province) at Lodja, where many textbooks, primers, and liturgical materials were found, was chosen because of its long history of literacy in the Tetela language. Data collectors also visited SIL International's office in Bunia in the Ituri Province (formerly the Orientale Province). Finally, the Haut-Katanga Province (formerly the Katanga Province) at Lubumbashi was targeted because it contains the original headquarters of Centre de Linguistique Théorique et Appliquée (CELTA, Theoretical and Applied Linguistics Centre) and the University of Zambia's College of Arts and Sciences. The data collectors were able to have materials from ACOTBA-SUBO sent from Gemena in the Sud-Ubangi Province (formerly the Équateur Province) to Kinshasa for their review. However, geographical challenges (e.g., inaccessibility of roads, distances) prevented the data collectors

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[1] In mid-2015, after the data collection, but prior to the finalization of this report, the country's 10 provinces were subdivided into 26 provinces. The province names have been updated from the original version of the report.

from capturing materials in Kiluba (Luba-Katanga), Bemba, Kanyok, Songe, and potentially other languages, so the inventory is not comprehensive.

The data collectors surveyed 458 titles. The largest number of titles were found through direct contact with publishers (174 [38 percent]) and in libraries (165 [36 percent]). Government officials were the source of 82 titles (18 percent).

3. Findings

A. Availability of Materials for Early Grade Reading in Congolese Languages

Materials by Language

The data collectors encountered 458 materials in 35 languages: 31 languages of African origin and four of European origin (i.e., French, English, Portuguese, and Latin). The languages are listed in **Table A-1** in order of the number of titles found.

Materials were found in all four of the national languages (i.e., Kikongo, Lingala, Tshiluba, and Swahili [Congo]) and in several other large regional languages. The number of titles did not always correspond to the size of the speaker population. Although a relatively large number of texts were found in Lingala (105) and Kikongo (88)—two of the national languages—this was not the case for the other two national languages (i.e., Tshiluba and Swahili [Congo]). Only 30 titles were found in Swahili (Congo), and only 11 titles in Tshiluba, even though these languages combined are spoken by more than 15 million people. Twenty languages had fewer than 10 titles each.

Meanwhile, 70 titles were found in Ngbaka, although it does not share the same status as a national language. Ngbaka has received special support from SIL International/ACOTBA-SUBO, which are producing materials in this language despite its relatively smaller population of speakers. Also, as previously noted, Tetela is widely spoken in the (former) Kasaï-Oriental Province, and 25 titles were found in Tetela, more than twice the number of titles found in Tshiluba, the national language of the region. The Tetela people are known for having a long history of literacy in their language dating back to the colonial period, with many textbooks and religious materials.

As previously mentioned, French enjoys official status in the DRC, but although many materials exist in French, the focus of the study was on African language materials. Materials in French and in other European languages were considered only if they appeared bilingually with an African language.

Overall, 381 titles (83 percent) were monolingual, 71 (16 percent) were bilingual, and six (one percent) were multilingual. All of the titles were written in Latin-based script. No official statute exists concerning the orthography of these languages; therefore, no official regulation exists concerning the marking of tone for tonal languages, but in practice, diacritics (accent marks) are often used to distinguish between tones.

Table A-1. Languages in Which Materials Were Found in the DRC

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in the DRC[c]	Titles per Language	Percentage of Titles Surveyed[d]
1	Lingala	lin	2,040,000 (L1) (2000)	105	22.9%
2	Kikongo	kng	3,000,000 (L1) (1982) 5,000,000 (L2)	88	19.2%
3	Ngbaka	nga	1,010,000 (2000)	70	15.3%
4	French[e]	fra	6,080,000 (L2) (2007)[f]	64	14.0%
5	Kituba	ktu	4,200,000 (L1) (1990) 800,000 (L2)	42	9.2%
6	Swahili (Congo)	swc	Few L1 speakers; 9,100,000 (L2) (1991)	30	6.6%
7	Tetela	tll	750,000 (1991)	25	5.5%
8	Bangala	bxg	Few L1 speakers; 3,500,000 (L2) (1991)	12	2.6%
9	Omi	omi	91,000	12	2.6%
10	Tshiluba[g]	lua	6,300,000 (L1) (1991) 700,000 (L2)	11	2.4%
11	Fuliiru	flr	400,000 (2012)	10	2.2%
12	Tembo	tbt	150,000 (1994)	10	2.2%
13	Mono	mnh	65,000 (1984)	7	1.5%
14	Ngbandi (Northern)	ngb	250,000 (2000)	7	1.5%
15	English[e]	eng	Not applicable	5	1.1%
16	Mbandja	zmz	352,000 (2000)	5	1.1%
17	Lika	lik	60,000 (1989)	4	0.9%
18	Logo	log	210,000 (1989)	4	0.9%
19	Pagibete	pae	28,000 (2000)	4	0.9%
20	Lendu	led	750,000 (1996)	3	0.7%
21	Mangbetu	mdj	620,000	3	0.7%
22	Mundu	muh	2,800; 23,000 in native South Sudan	3	0.7%
23	Bali	bcp	42,000 (1987)	2	0.4%
24	Budu	buu	180,000 (1991)	2	0.4%
25	Bushoong	buf	155,000 (2000)	2	0.4%
26	Ngiti	niy	100,000 (1991)	2	0.4%
27	Alur	alz	750,000 (2001)	1	0.2%
28	Komo	kmw	400,000 (1998)	1	0.2%
29	Latin	lat	Not applicable	1	0.2%
30	Mayogo	mdm	100,000 (1991)	1	0.2%
31	Ngbandi (Southern)	nbw	105,000	1	0.2%
32	Ngombe	ngc	150,000 (1971)	1	0.2%
33	Portuguese	por	Not applicable	1	0.2%
34	Shi	shr	654,000 (1991)	1	0.2%
35	Kiswahili (Tanzania)	swh	15,000,000 in native Tanzania	1	0.2%

Note: DRC = Democratic Republic of the Congo; ISO = International Organization for Standardization; L1 = first language; L2 = second language.

Types of Materials

Table A-2 details the types of materials found by language. Key observations include the following:

- Of the 458 titles, 273 (60 percent) were textbooks or related materials, and 185 (40 percent) were supplementary, non-textbook titles. This 3:2 ratio of textbook-related to supplementary is the opposite of the general trend across the 11 countries as a whole (for which the ratio is 3:2 supplementary to textbook).

- Unlike in any of the other countries in this study, out of 273 titles, teacher's guides were the most common textbook-related material with 153 (56 percent) and outnumbered the 118 student textbook titles, which only accounted for 43 percent.

- Most supplementary materials (121 [65 percent]) were narratives.

Table A-2. Number of Different Types of Materials, by Language

| Language(s)[a] | Textbook-Related | | | | | Non-textbook/Supplementary | | | | | | | |
	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Alur	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Bali	2	—	—	2	0.4%	—	—	—	—	0	0.0%	2	0.4%
Bangala	1	—	3	4	0.9%	5	1	—	—	6	1.3%	10	2.2%
Bangala/French	—	—	—	0	0.0%		—	2	—	2	0.4%	2	0.4%
Budu	1	—	—	1	0.2%	1	—	—	—	1	0.2%	2	0.4%
Bushoong	—	—	—	0	0.0%	—	—	—	—	0	0.0%	0	0.0%
Bushoong/French	—	—	—	0	0.0%	1	—	—	1	2	0.4%	2	0.4%
Fuliiru	3	—	5	8	1.7%	2	—	—	—	2	0.4%	10	2.2%
Kikongo	15	—	42	57	12.4%	20	1	—	1	22	4.8%	79	17.2%
Kikongo/French	—	—	4	4	0.9%	1	—	3	1	5	1.1%	9	2.0%
Kiswahili (Tanzania)	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Kituba	4	—	28	32	7.0%	5	3	—	—	8	1.7%	40	8.7%
Kituba/French	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Kituba/French/Lingala	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Komo	—	—	—	0	0.0%	—	1	—	—	1	0.2%	1	0.2%
Lendu	2	—	—	2	0.4%	1	—	—	—	1	0.2%	3	0.7%
Lika	—	—	—	0	0.0%	4	—	—	—	4	0.9%	4	0.9%
Lingala	23	—	16	39	8.5%	27	10	1	1	39	8.5%	78	17.0%
Lingala/English	—	—	2	2	0.4%	—	—	—	—	0	0.0%	2	0.4%
Lingala/French	1	—	5	6	1.3%	7	—	4	2	13	2.8%	19	4.1%
Lingala/Portuguese/French	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Logo	1	—	—	1	0.2%	2	—	—	—	2	0.4%	3	0.7%
Mangbetu	—	—	—	0	0.0%	2	—	—	1	3	0.7%	3	0.7%
Mayogo/French	—	—	—	0	0.0%	—	—	1	—	1	0.2%	1	0.2%
Mbandja	2	1	2	5	1.1%	—	—	—	—	0	0.0%	5	1.1%
Mono	2	—	1	3	0.7%	2	—	—	1	4[b]	0.9%	7	1.5%
Mundu	1	—		1	0.2%	1	—	—	—	1	0.2%	2	0.4%

| Language(s)[a] | Textbook-Related | | | | | Non-textbook/Supplementary | | | | | | | |
	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Ngbaka	18	—	17	35	7.6%	15	2	—	7	24	5.2%	59	12.9%
Ngbaka/French	6	—	3	9	2.0%	—	—	1	—	1	0.2%	10	2.2%
Ngbandi (Northern)	1	—	4	5	1.1%	—	—	—	—	0	0.0%	5	1.1%
Ngbandi (Northern)/French	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Ngbandi (Southern)	—	—	1	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Ngiti	1	—	—	1	0.2%	1	—	—	—	1	0.2%	2	0.4%
Ngombe	—	—	—	0	0.0%	—	—	—	1	1	0.2%	1	0.2%
Omi	3	—	—	3	0.7%	8	—	—	—	8	1.7%	11	2.4%
Omi/French	—	—	—	0	0.0%	—	—	—	1	1	0.2%	1	0.2%
Pagibete	—	1	1	2	0.4%	—	—	—	—	0	0.0%	2	0.4%
Swahili (Congo)	11	—	1	12	2.6%	4	1	2	—	8[c]	1.7%	20	4.4%
Swahili (Congo)/French	—	—	2	2	0.4%	—	1	3	—	4	0.9%	6	1.3%
Swahili (Congo)/English	—	—	—	0	0.0%	—	—	1	—	1	0.2%	1	0.2%
Swahili (Congo)/French/Shi	—	—	—	0	0.0%	—	1	—	—	1	0.2%	1	0.2%
Swahili (Congo)/French/English	—	—	—	0	0.0%	—	—	2	—	2	0.4%	2	0.4%
Tembo	—	—	—	0	0.0%	8	—	—	2	10	2.2%	10	2.2%
Tetela	9	—	12	21	4.6%	1	—	—	—	1	0.2%	22	4.8%
Tetela/Latin	—	—	—	0	0.0%	—	1	—	—	1	0.2%	1	0.2%
Tetela/French	—	—	2	2	0.4%	—	—	—	—	0	0.0%	2	0.4%
Tshiluba	3	—	—	3	0.7%	3	—	—	—	3	0.7%	6	1.3%
Tshiluba/French	1	—	2	3	0.7%	—	—	1	—	1	0.2%	4	0.9%
Tshiluba/French/Lingala	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Total	118	2	153	273	59.6%	121	22	21	19	185	40.4%	458	100.0%

Note: Percentages may not sum exactly due to rounding.
[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate ISO 639-3 codes are given in parentheses.
[b] The subtype of one supplementary title in Mono was unknown.
[c] The subtype of one supplementary title in Swahili (Congo) was unknown.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The data collectors analyzed the 273 textbook-related materials with regard to their pedagogical components. As shown in **Figure A-1**, the most common component encountered was reading passages, appearing in 255 (93 percent) of the textbook-related titles. However, only 86 (32 percent) contained accompanying comprehension questions. The least common component was grammar instruction and/or exercises, appearing in only 29 (11 percent) of the materials. Just under half (125 [46 percent]) of the titles used what could be construed as a phonics approach to reading instruction.[2]

Figure A-1. Pedagogical components in textbook-related materials.
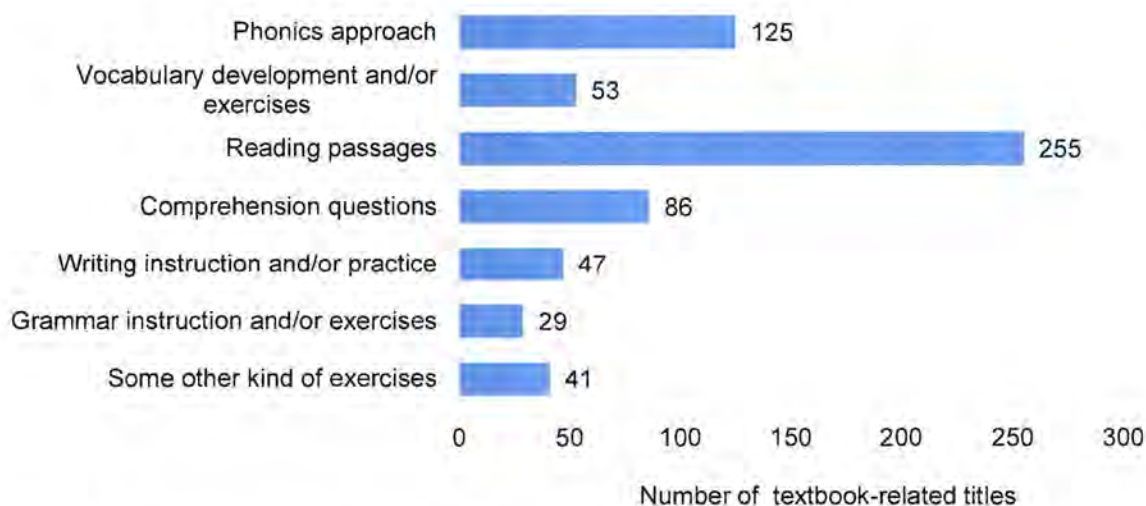
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Out of the 273 textbook-related materials, 124 (45 percent) were explicitly labeled by the publisher for a specific grade level in the formal education system, with the highest numbers concentrated in Primary Grades 1 (53) and 2 (38) (**Figure A-2**). Although the survey targeted kindergarten through Primary Grade 3 materials, the data collectors included titles that were designated for higher primary grades if they judged them to be potentially useful in lower grades. The "other" levels include textbooks that were labeled for Primary Grade 5 or 6. The data

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[2] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

collectors did not find any books for the pre-primary grade level (i.e., kindergarten or below). An example of a Primary Grade 3 student textbook in Lingala is presented as **Figure A-3**.

Figure A-2. Publisher-designated levels for textbook-related materials.

Number of textbook-related titles
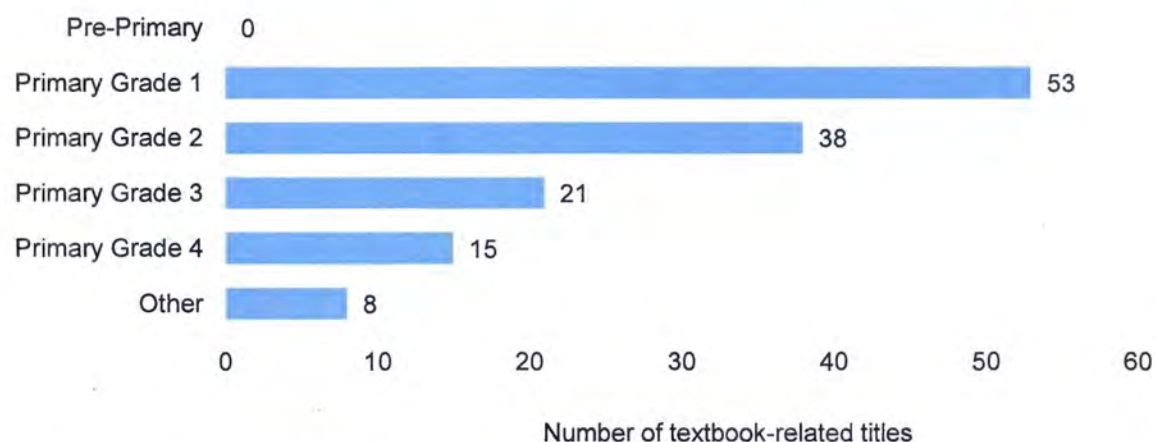
Note: Multiple responses per title were possible.

Figure A-3. *Buku Bwa Boyekoli Lingala: 3ème Année,* a Primary Grade 3 student textbook in Lingala.
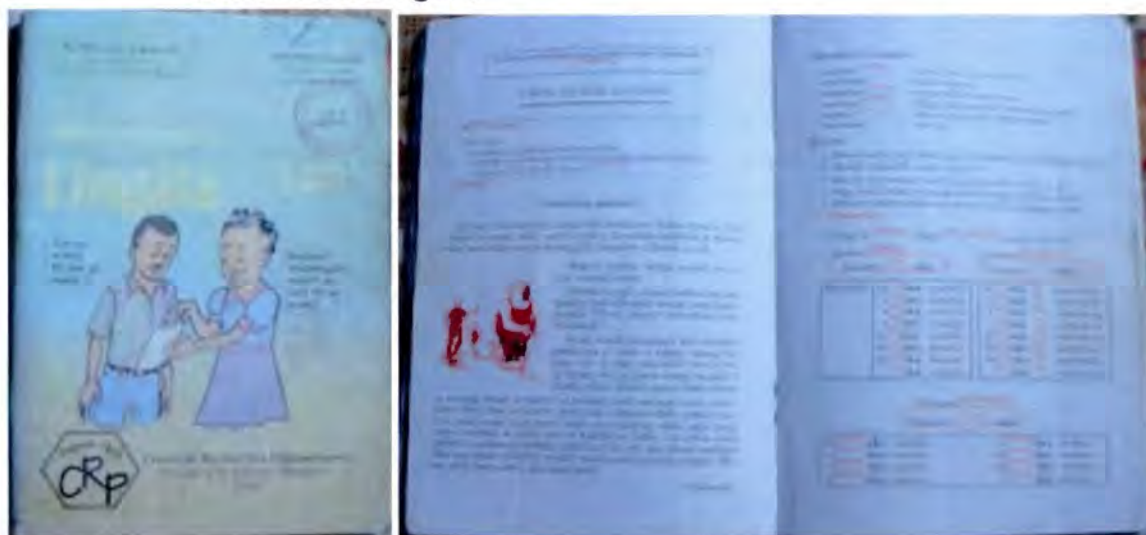
Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this count for 143 narrative and informational texts.

As shown in **Figure A-4**, there were very few supplementary titles available for the early stages of reading development. Only two titles (one percent) were surveyed for the earliest stage (1–10 words per page) and only five titles (three percent) at the next level up (11–25 words per page). By far the largest number (108 [76 percent]) of supplementary titles featured more than 75 words per page, corresponding to a relatively advanced level for beginning readers.

Figure A-4. Number of narrative and informational non-textbook titles by maximum words per page
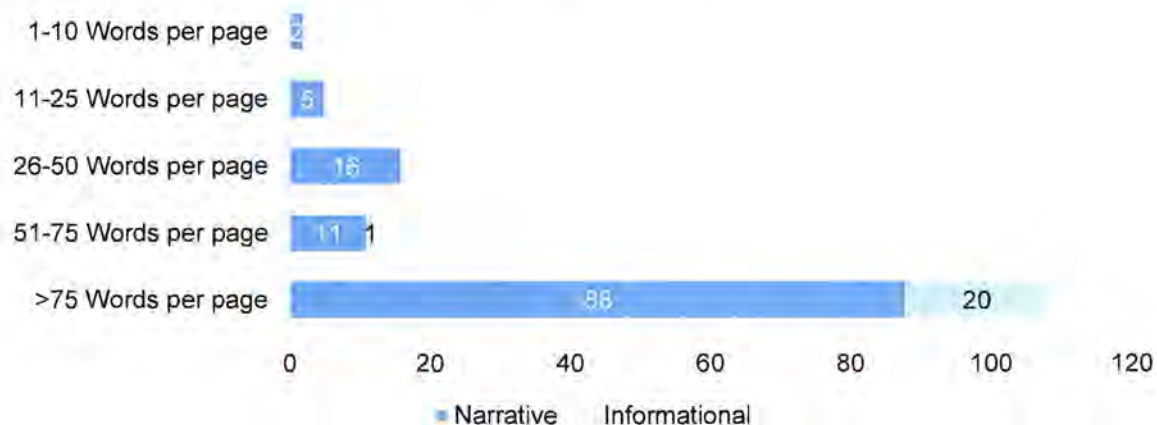
Illustrations

A slight majority (285 [62 percent]) of the 458 titles were illustrated. This is a much lower percentage than what was found in the other countries in the study. As shown in **Figure A-5**, 220 (48 percent) of the illustrations were printed in black and white or grayscale only, compared to 51 (11 percent) that were in full color.

Figure A-5. Presence and type of illustration.

Is the book illustrated?

No, 38%

Yes, all B&W and/or grayscale, 48%

Yes, all color, 11%

Yes, some B&W and some color, 3%
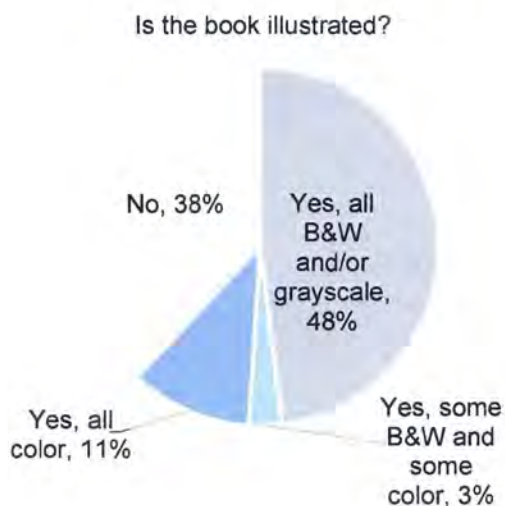
Content Themes

The data collectors examined 284 of the titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts if they knew the language; if they did not know the language, then they reviewed only the illustrations. The data collectors checked off the most prominent themes featured from a set list. The data collectors could select any number of themes because there no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure A-6**.

The most common theme was religion, appearing in 98 (35 percent) of the 284 titles, followed by animals (71 [25 percent]), family (63 [22 percent]), and the alphabet (61 [21 percent]).

The prevalence of religious content sets the DRC apart from the other countries in the study. Of the 284 titles examined, 69 (24 percent) contained Christian content (either Catholic or Protestant), and 18 (six percent) Jehovah's Witness, which aligns with the several titles sourced from the Watch Tower Society. One title (less than one percent) contained Islamic content, and 11 (four percent) displayed religious content that a data collector could not identify.

Figure A-6. Content themes.

Theme	Number of titles
Adventure	2
Agriculture	43
Alphabet	61
Animals	71
Biography	1
Business	4
Careers/Professions/Jobs/Work	26
Colors or Shapes	3
Community	44
Culture	20
Education/School	12
Energy	0
Environment	28
Family	63
Food/Nutrition	21
Friendship	35
Health/Personal Hygiene	19
History	4
Holidays/Celebrations	2
Home Life	26
How-to/Skill Development	2
Human Body	11
Humor	9
Media	0
Morals/Values	34
Numeracy/Counting/Math	19
Peace/Justice/Equality/Human Rights	4
Plants	11
Religion	98
Safety	5
Science	2
Social Studies/Civic Education	8
Technology	0
Travel/Transportation	40
Unknown/Unable to Evaluate	31
Weather	0

Number of titles

Content Familiarity and Appropriateness

The data collectors analyzed 284 titles for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. The data collectors judged 203 titles (71 percent) as containing "very familiar" content, 48 (17 percent) as containing "semi-familiar"

content, and seven (two percent) as containing content that was "mostly unfamiliar" to the target audience.

The data collectors also reviewed the illustrations in these 284 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, and other known cultural taboos. On the whole, the data collectors perceived the materials to be free of this type of content. The data collectors identified only seven titles (two percent) as having some type of potentially sensitive content as shown in **Figure A-7**.

Figure A-7. Potentially sensitive content in the illustrations
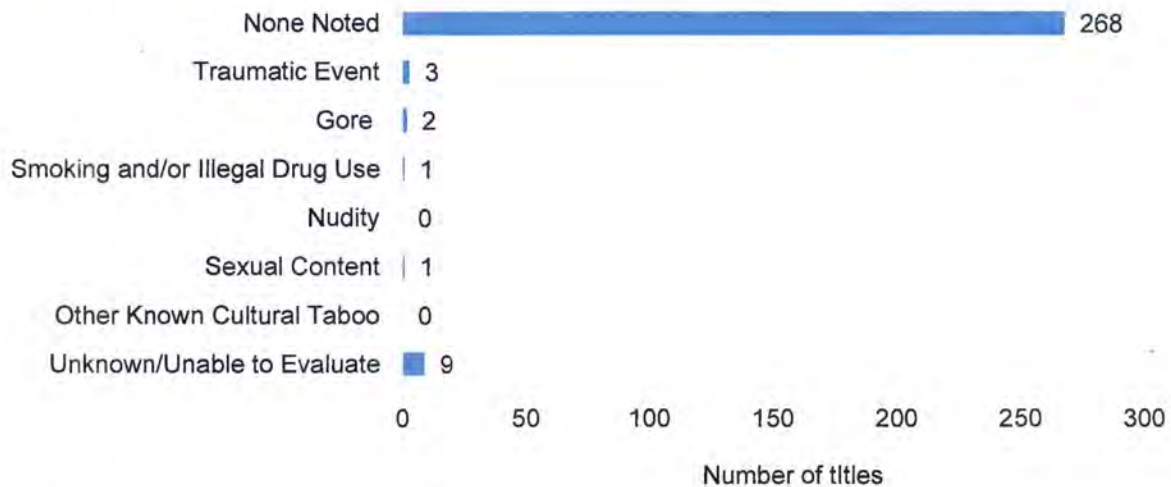
Note: Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of 194 titles regarding the frequency and equality of representation of people in the illustrations according to gender, ethnic or religious group identity, and disability. Teacher's guides, reference materials, and titles not illustrated with humans or anthropomorphic animals were excluded from this item.

Gender

Of the 194 titles, the data collectors determined that gender was not apparent in the illustrations in 51 (26 percent) of them, thus furthering limiting the subset of titles used to evaluate gender balance and roles. Of the remaining 143 titles, the data collectors judged 123 titles (86 percent) to portray an overall balance of both genders, 13 (nine percent) to portray primarily males, and seven (five percent) to portray primarily females (**Figure A-8**).

Figure A-8. Frequency of gender representation in the illustrations

Portray an overall balance of both male and
female ────────────────────────────── 122

Portray primarily males ──── 13

Portray primarily females ── 7

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0          50          100          150
```
Number of titles
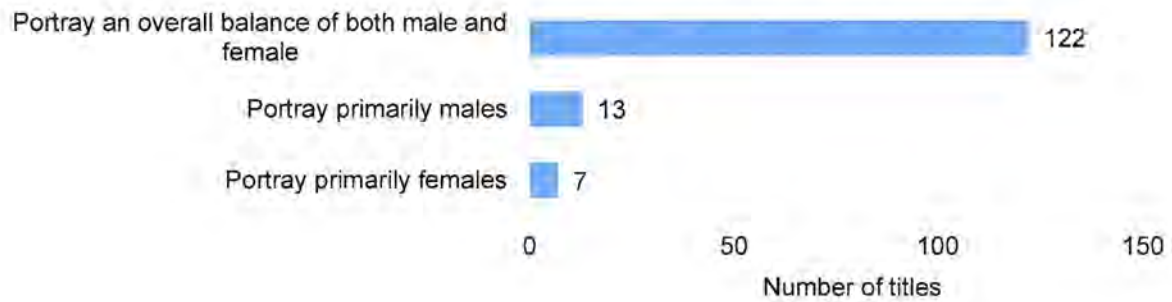
In 138 of the titles with illustrations where gender was apparent, the data collectors judged whether male and female characters were portrayed "with equal skills, knowledge, accomplishments, or roles." The data collectors determined that 106 (77 percent) of the evaluated titles portrayed male and female characters comparably, and 25 (18 percent) did not. For seven titles (five percent) the data collectors judged that there was an insufficient basis for comparison.

Ethnic and Religious Group Identity

Of the 194 titles, the data collectors were unable to evaluate 14 for ethnic and religious group identity. Of the remaining 180 titles, they determined that 135 (75 percent) did not portray identifiable ethnic or religious groups, 22 (12 percent) portrayed different groups proportionally to their presence in the population, and six (three percent) portrayed exclusively one ethnic or religious group but in cases where the data collectors judged that the target population was composed overwhelmingly of that group. Lastly, 17 titles (nine percent) were judged to portray one group to the exclusion of another group present in the target population (**Figure A-9**).

For the overwhelming majority of titles, the data collectors judged that there was insufficient basis for comparison of the nature of the portrayal of ethnic or religious groups in the illustrations. The data collectors evaluated only 37 titles for the question regarding whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles." Of those titles, the data collectors judged that 28 (76 percent) portrayed the different groups comparably and that nine (24 percent) portrayed them unequally.

Figure A-9. Frequency of ethnic/religious group representation in the illustrations.
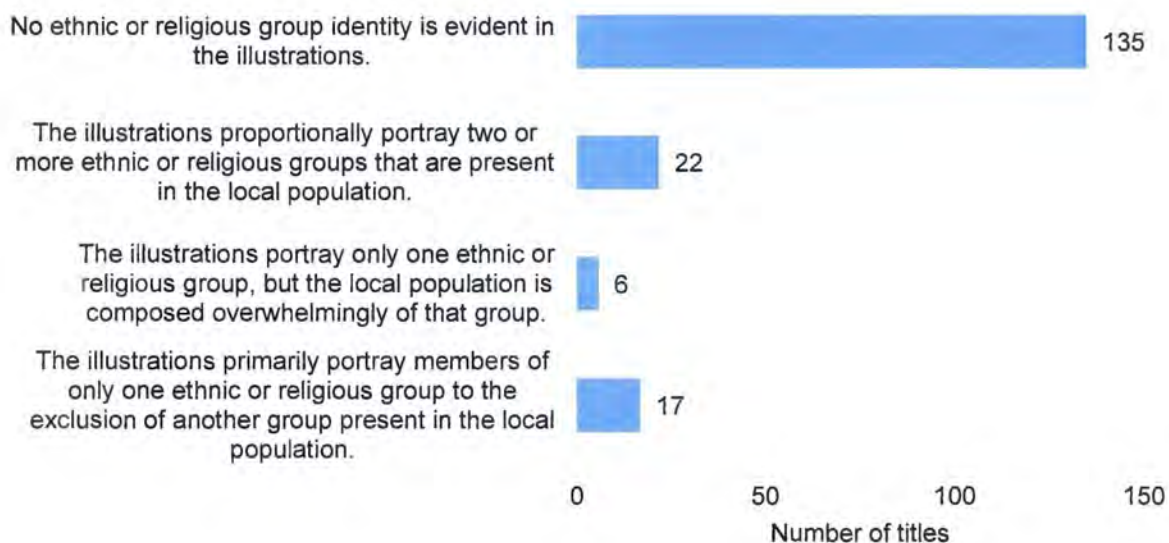
Disability

Similar to the gender and ethnicity and religion questions, the data collectors examined the illustrations of 194 titles for the frequency of representation of people with disabilities. Of those titles, the data collectors found that only two titles (one percent) portrayed any characters with obvious disabilities. Both of those titles were judged to portray the people with disabilities "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

Of the 458 titles surveyed, slightly fewer than half (212 [46 percent]) contained a copyright symbol. Only three titles (one percent) contained an explicit statement granting some permissions for reuse, including a student textbook published by ACOTBA-SUBO and two teacher's guides licensed under Creative Commons by the Centre de Recherches Pédagogiques (CRP, Pedagogical Research Centre), which is a Catholic publisher and bookstore. In contrast, the data collectors marked 11 titles (two percent) as containing "All Rights Reserved" or equivalent wording. The remaining titles did not contain an explicit statement regarding permissions.

The results of the survey suggest that, despite the large number of nonprofit and faith-based organizations involved with producing materials, Creative Commons licensing is not yet common in the DRC.

Medium

The data collectors found approximately all of the titles in hard copies. Only five titles (one percent) were soft copies, one of which was produced in both media.

D. Landscape of the Production of Children's Reading Materials in African Languages in the DRC

Publisher Types

For the purposes of this study, a "publisher" is referred to broadly as any organization that is responsible for developing and/or funding the materials. Many titles were produced jointly by two or more organizations, at times belonging to different categories.

According to this study, faith-based organizations and other nongovernmental organizations (NGOs) dominate African-language publishing in the DRC. The highest number of titles (340 [74 percent]) were collected from faith-based organizations, and 162 [35 percent]) from private, NGO, publisher types (**Figure A-10**). (Note: These two categories overlap and might in fact refer to many of the same entities and titles.)

The almost total lack of materials produced by commercial publishers is noteworthy. Some government offices and some commercial publishers hesitated to share materials with the data collectors. In addition, some vendors in the marketplace were reluctant to provide information about their materials without the data collectors purchasing the books. These challenges subsequently limited the number of titles inventoried from these sources; therefore, these numbers may underrepresent actual conditions.

Figure A-10. Number of titles by publisher type
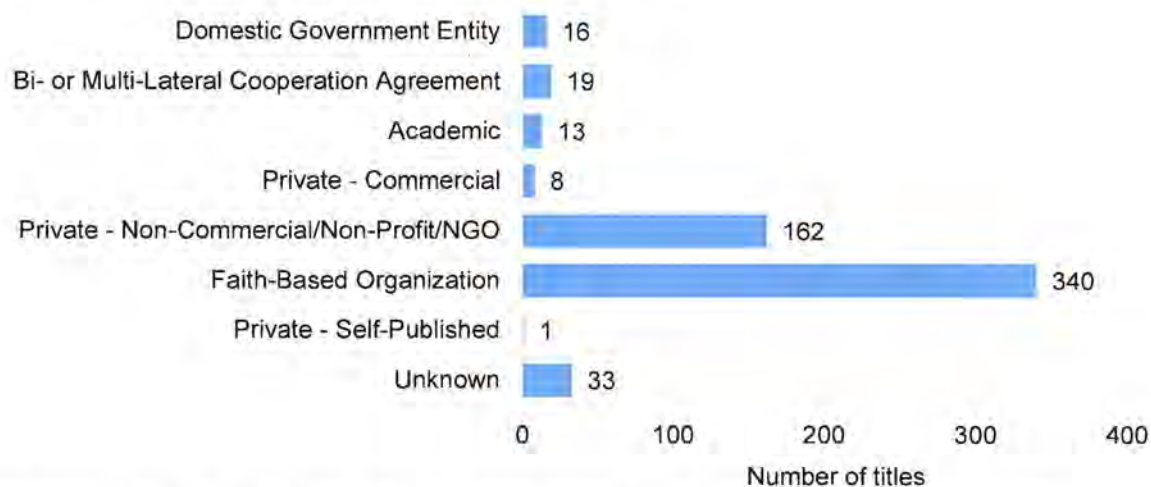
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

Of all the countries surveyed, the DRC had the oldest inventory. Only 162 (35 percent) of the titles surveyed were published between 2000 and 2015 (**Figure A-11**), and the mean year of publication was 1992. Titles were found dating back to as early as the 1930s. An example of a Lingala reader from 1969 is presented as **Figure A-12**.

Figure A-11. Year of publication
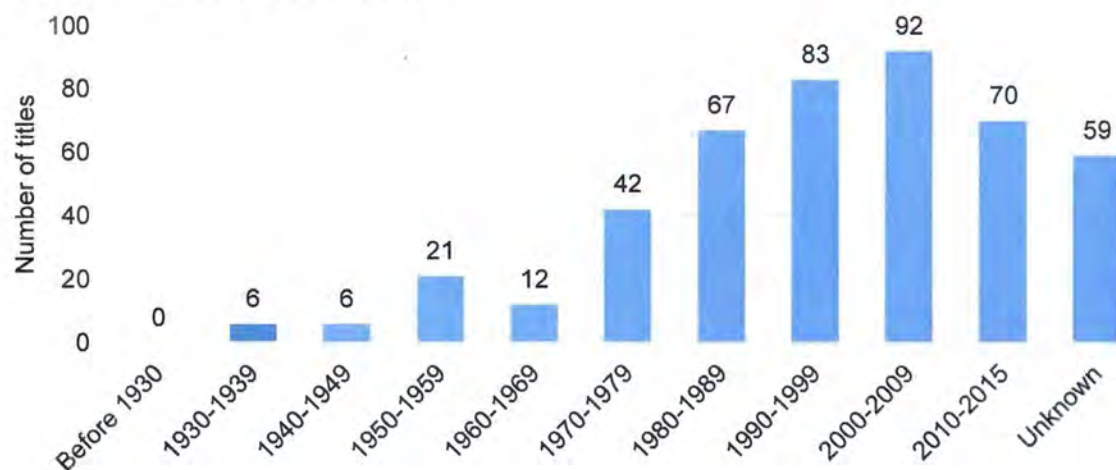
Figure A-12. *Tata Ngaii Apoti Mbango*, a Lingala reader from 1969

International Standard Book Number

Of the 498 titles surveyed, only 34 titles (seven percent) contained an International Standard Book Number (ISBN). These findings may be related to the relatively low number of titles produced by for-profit commercial publishers.

Price

Data regarding the price of the materials were only available for 54 (12 percent) of the 458 titles. Of the small sample of books with known prices, reference books were the most expensive at an average of $24.25 (U.S. dollars), and teacher's guides were the least expensive at an average of $3.08 (**Table A-3**). The data collectors did not record any titles as being available for free. However, given the small sample for which price data were available, these averages cannot be considered as necessarily representative. The government distributes books for free to both public and private schools in the DRC. However, in the informal public markets, these same books, which were once freely distributed, can be found for sale second-hand. Vendors set their own prices depending on the cost at which they acquired them or even depending on the reputation of the book. Thus, the prices vary from vendor to vendor.

Table A-3.   Price of hard-copy materials by book type

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Textbook-Related				
Student textbook	0	14	$4.67	$0.33–$19.80
Student workbook	0	Not applicable	Not applicable	Not applicable
Teacher's guide	0	12	$3.08	$1.10–$6.93
Non-textbook/Supplementary				
Narrative	0	16	$3.12	$1.10–$5.06
Informational	0	4	$5.72	$0.22–$12.65
Reference	0	7	$24.25	$2.75–$71.50
Poetry, etc.	0	1	$11.00	$11.00–$11.00
All titles	**0**	**54**	**$6.58**	**$0.22–$71.50**

[a] The exchange rate used is 1 Congolese Franc (CDF) = 0.0011 U.S. dollar (USD).

4.   Remarks

The data collectors traveled to several regions of the DRC to search for materials that matched the criteria of this study. In spite of an official language in education policy supporting the use of Congolese languages at the primary level, they encountered a paucity of reading materials in Congolese languages for early grade students and teachers. Government officials were the first to acknowledge this deficiency. Although the data collectors selected the regions where they were most likely to find the largest number of relevant titles within the timeframe allotted, they acknowledge the strong possibility of additional reading materials being available in other regions of the country. Therefore, it cannot be said that the study is representative of the DRC because the data collectors did not reach all regions. In addition, the reluctance of some government offices, commercial publishers, and booksellers to participate in the study leaves open the possibility that many additional titles were not captured.

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Annex B. Summary of the Early Grade Reading Materials Survey in Ethiopia

Geography and Demographics

Size:	1,104,300 square kilometers (km²)
Population:	99 million (2015)
Capital:	Addis Ababa
Urban:	20% (2015)
Administrative Divisions:	9 ethnically based states and two city administrations
Religion:	44% Ethiopian Orthodox 34% Muslim 19% Protestant 3% Traditional 1% Catholic 1% Other

Source: Central Intelligence Agency (2015).
Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 4–14 years):[b]	26 million
Adult (aged >15 years)	49%	57%	41%	2013 Primary School (Primary Grades 1–8) GER:[b]	95%, up from 94% in 2009
Youth (aged 15–24 years)	69%	71%	68%	2013 Pre-primary School GER:[b]	26%

Sample EGRA Results [c]	Language:	Amharic		Oral Reading Fluency:	Mean: 23 words per minute 28% zero scores (P2) 17% zero scores (P3)
	When:	2010			
	Where:	Amhara			
	Who:	2,316 P2 and P3 students		Reading Comprehension:	49% zero scores (P2) 30% zero scores (P3)

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P2 = Primary Grade 2; P3 = Primary Grade 3. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: Ethiopian Federal Ministry of Education (2013).
[c] Source: Piper (2010).

Language

Number of Living Languages:[a] 86

Major Languages[b]	Estimated Population[c]	Government Recognized Status
Amharic	21,600,000 (L1) 4,000,000 (L2)	"Official working language" at the national and 4 regional levels

Oromo[d]	25,500,000 speakers	"Official working language" at the regional level
Afar	1,280,000 (L1) 22,800 (L2)	"Official working language" at the regional level
Tigrigna	4,320,000 (L1) 147,000 (L2)	"Official working language" at the regional level
Somali	4,610,000 (L1) 95,600 (L2)	"Official working language" at the regional level
Sidamo	2,980,000 (L1) 101,000 (L2)	LWC
Wolaytta	1,710,000 (L1) 89,800 (L2)	LWC
Hadiyya	1,250,000 (L1) 151,000 (L2)	LWC

Note: L1 = first language; L2 = second language; LWC = language of wider communication
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[c] Source: Lewis et al. (2015). Unless otherwise noted, all of the speaker population estimates are from 2007.
[d] Lewis et al. (2015) list Oromo as a macrolanguage with an estimated total of 25,500,000 speakers (2007), including (but not limited to) the following dialects with separate International Organization for Standardization (ISO) 639-3 codes: Oromo (Borana-Arsi-Guji/Southern): 3,630,000 speakers; Afan Oromo (West Central): 8,920,000 speakers (1994); and Oromo (Eastern): 4,530,000 speakers (1994).

Ethiopia Findings in Brief:

The study surveyed 598 titles in Ethiopia. The country's widely implemented education in language policy embraces instruction in Ethiopian languages, and this strong policy support is reflected in the diversity of languages in which materials were found. As the official language, Amharic was the most prevalent and was often the second language for bilingual and multilingual texts. During the survey, more non-textbook supplementary materials were encountered than textbooks, and narrative texts and student textbooks were the predominant subtypes of each. Most titles encountered contained content that was deemed appropriate for early grade learners in terms of level, themes, and familiarity. Most of the materials featured a relative balance of the genders; however, very few books featured images of individuals with disabilities. Of the titles surveyed, 407 (68 percent) were copyrighted, and only 12 (two percent) explicitly granted permissions for reuse under specific conditions. The Ethiopian inventory is relatively new, with 371 (62 percent) of the titles having been published in the past five

1. Language in Education Policy in Ethiopia

According to Article 5, Section of the 1994 Constitution of the Federal Democratic Republic of Ethiopia, "all Ethiopian languages shall enjoy equal state of recognition." In addition, Amharic is the "working language of the Federal Government," and regional states, zones, and *weredas* determine their own respective official languages. Ethiopia's language in education policy is one of the more progressive in Africa as the government has supported the use of Ethiopian languages (called "nationality languages") in education for the past few decades. The education and training policy (Federal Democratic Government of Ethiopia, 1994) states that due to "the pedagogical advantage of the child in learning mother tongue and the rights of nationalities to promote the use of their language, primary education will be given in nationality languages." Regional states choose their language of instruction (LOI) through Primary Grade 8 from among the languages spoken in their respective areas; English is to be taught as a subject beginning

from Primary Grade 1, and then serves as the LOI for upper secondary through the tertiary level (Federal Democratic Government of Ethiopia, 1994; Ethiopia Ministry of Education, 2002). Amharic is also to be taught as a subject starting from Primary Grade 3 in regions where it is the second language (Bogale, 2009), which means that in many primary schools, children are taught in three languages: the regional language, Amharic, and English. Based on this constitutional right and on supporting guidance from the 1994 education and training policy, the education sector strategy, and the Education Sector Development Programmes, regional governments of the respective languages have and will continue to develop orthographies and written educational materials in Ethiopian languages (UNESCO and the International Bureau on Education, 2010).

Consequently, children in many communities attend primary schools where instruction is given in their home language. Commissioned by the U.S. Agency for International Development (USAID), the 2010 Early Grade Reading Assessment (EGRA) study asked children whether they speak the same language at home as they are taught in at school. In each region, most children reported using their home language at school (Piper, 2010). The percentage of children for whom this was true ranged from 72 percent (Benishangul-Gumuz) to 98 percent (Sidama zone [within the Southern Nations, Nationalities, and Peoples' Region (SNNPR)]), with most regions surveyed having more than 85 percent overlap between the language of instruction and the home language (Piper, 2010). Regional differences also exist in the interpretation and implementation of the policy on the transition from Ethiopian languages to English as LOI. From one regional state to another the actual timing of the transition varies, beginning in Primary Grade 5, 7, or 9 (Heugh, 2010; Vujich, 2013).

2. Data Collection

The data collectors began their search for relevant materials through discussions with organizations such as National Archives, Ministry of Education, and the education bureaus in each region. Challenges of inaccessibility and lack of participation by some education officials led the data collectors to focus on contacting the publishers or sponsoring organizations directly, from whom they were able to log 455 titles (76 percent). Most of the materials were located in the capital, Addis Ababa. The data collectors eventually captured 598 materials in 30 different languages.

3. Findings

A. Availability of Materials for Early Grade Reading in Ethiopian Languages

Materials by Language

The data collectors surveyed a total of 598 titles in a total of 30 known languages: 29 Ethiopian and one European (English), as shown in **Table B-1**.

The most common language found was Amharic, which is the official language nationwide as well as for four regional states, and was featured in 366 titles (61 percent), followed by Afan

Oromo, with 52 titles (nine percent). In addition, 12 other Ethiopian languages appeared in at least 10 or more titles each.

The data collectors collected titles from every Ethiopian language with more than a million speakers according to the 2007 census data cited in the *Ethnologue* (Lewis et al., 2015). In some cases, a relatively large number of titles were found in languages with relatively small speaker populations, including 36 titles in Bench (347,000 speakers), 36 in Suri (26,900 speakers), 31 in Sheko (38,400 speakers), 29 in Me'en (151,000 speakers), and 24 in Dizin (33,900 speakers) (Lewis et al., 2015). This large number of titles in all of these languages largely reflects the work that SIL International has led in these languages.

Of the 598 titles, 463 (77 percent) were monolingual, 127 (21 percent) were bilingual, and eight (one percent) were multilingual. Amharic was prevalent as a second language in bilingual and multilingual books (i.e., 18 textbook titles [three percent] and 93 non-textbook materials [16 percent]). English appeared in addition to Ethiopian languages in 29 bilingual or multilingual books. Because the focus of the survey was on African language materials, the data collectors did not consider monolingual English books.

Overall, 271 titles (45 percent) used a Latin-based script, 296 (49 percent) used the Amharic Fiedel script, and 31 (five percent) used the Sabean, Ethiopic script.

Table B-1. Languages in Which Materials Were Found in Ethiopia

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Ethiopia[c]	Titles per Language	Percentage of Titles Surveyed[d]
1	Amharic	amh	21,600,000	366	61.2%
2	Afan Oromo (West Central)	gaz	8,920,000 (1994)	52	8.7%
3	Bench	bcq	348,000	36	6.0%
4	Suri	suq	26,900	36	6.0%
5	Sheko	she	38,400	31	5.2%
6	English	eng	170,000 (L2)	29	4.9%
7	Me'en	mym	151,000	29	4.9%
8	Dizin	mdx	33,900	24	4.0%
9	Somali	som	4,610,000	20	3.3%
10	Tigrigna	tir	4,320,000	18	3.0%
11	Sidamo	sid	2,980,000	15	2.5%
12	Hadiyya	hdy	1,250,000	15	2.5%
13	Wolaytta	wal	1,710,000	11	1.8%
14	Silt'e	stv	935,000	10	1.7%
15	Berta	wti	187,000	10	1.7%
16	Kambaata	ktb	615,000	6	1.0%
17	Afar	aar	1,280,000	5	0.8%
18	Dawro	dwr	543,000	5	0.8%
19	Konso	kxc	242,000	3	0.5%
20	Borna	bwo	37,500	3	0.5%

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Ethiopia[c]	Titles per Language	Percentage of Titles Surveyed[d]
21	Majang	mpe	32,800	3	0.5%
22	Anuak	anu	34,300	3	0.5%
23	Gedeo	drs	975,000	2	0.3%
24	Gamo	gmv	1,110,000	1	0.2%
25	Gofa	gof	363,000	1	0.2%
26	Gumuz	guk	179,000	1	0.2%
27	Kafa	kbr	834,000	1	0.2%
28	Komo	xom	8,530	1	0.2%
29	Koorete	kqy	157,000	1	0.2%
30	Nuer	nus	151,000	1	0.2%
31	Unknown	Not applicable	Not applicable	1	0.2%

Note: ISO = International Organization for Standardization; L2 = second language.
[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate ISO 639-3 codes are provided in parentheses.
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al. (2015). Unless otherwise noted, the estimated speaker populations are from the 2007 census.
[d] Due to bilingual titles, the total will surpass 100%.

Types of Materials

The data collectors experienced difficulties in attaining textbook-related materials from education officials or schools. The results are potentially heavily influenced by this detail, leaving open the possibility that many textbook-related titles were not captured.

Table B-2 provides details regarding the types of materials found by language. Some of the key observations include the following:

- Most titles recorded (435 [73 percent]) were non-textbooks, versus 163 (27 percent) textbook-related titles. The most common subtypes in each category were narratives (378 [87 percent]) and student textbooks (132 [81 percent]).

- Student textbook titles (not copies) outnumbered teacher's guides by a ratio of almost 5:1.

- Student literacy workbooks, informational supplementary titles, reference materials, and poetry or similar were all relatively rare.

Table B-2. Number of Different Types of Materials Found, by Language

Language	Student Literacy Textbook	Student Literacy Workbook	Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
	Literacy Textbook-Related					Non-textbook/Supplementary							
Afan Oromo	6	—	4	10	1.7%	38	—	—	3	41	6.9%	51	8.5%
Oromo/English	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Afar	5	—	—	5	0.8%	—	—	—	—	0	0.0%	5	0.8%
Amharic	29	1	4	34	5.7%	186	15	1	3	205	34.3%	239	40.0%
Amharic/English	1	—	—	1	0.2%	5	2	5	—	12	2.0%	13	2.2%
Anuak	2	—	—	2	0.3%	1	—	—	—	1	0.2%	3	0.5%
Bench	6	—	—	6	1.0%	3	—	1	—	4	0.7%	10	1.7%
Bench/Amharic	—	—	—	0	0.0%	26	—	—	—	26	4.3%	26	4.3%
Berta	2	—	—	2	0.3%	3	—	—	—	3	0.5%	5	0.8%
Berta/Amharic	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Berta/English	—	—	—	0	0.0%	—	—	1	—	1	0.2%	1	0.2%
Berta/Amharic/English	—	—	—	0	0.0%	3	—	—	—	3	0.5%	3	0.5%
Boreno	—	—	—	0	0.0%	2	—	—	—	2	0.3%	2	0.3%
Boreno/Amharic/English	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Dawro	—	—	—	0	0.0%	5	—	—	—	5	0.8%	5	0.8%
Dizin	6	—	—	6	1.0%	—	—	—	—	0	0.0%	6	1.0%
Dizin/Amharic	—	—	—	0	0.0%	18	—	—	—	18	3.0%	18	3.0%
Gamo	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Gedeo	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Gedeo/Amharic	—	—	—	0	0.0%	—	—	—	1	1	0.2%	1	0.2%
Gofa	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Gumuz/Amharic/English	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Hadiyya	6	—	4	10	1.7%	5	—	—	—	5	0.8%	15	2.5%
Kafa	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Kambaata	4	—	—	4	0.7%	2	—	—	—	2	0.3%	6	1.0%
Komo	1	—	—	1	0.2%	-	—	—	—	0	0.0%	1	0.2%
Konso	—	—	—	0	0.0%	2	1	—	—	3	0.5%	3	0.5%
Koorete	—	—	—	0	0.0%	-	1	—	—	1	0.2%	1	0.2%
Majang	3	—	—	3	0.5%	-	—	—	—	0	0.0%	3	0.5%
Me'en	6	—	—	6	1.0%	3	8	—	—	11	1.8%	17	2.8%
Me'en/Amharic	11	—	—	11	1.8%	—	—	—	—	0	0.0%	11	1.8%
Me'en/Amharic/English	—	—	—	0	0.0%	—	—	1	—	1	0.2%	1	0.2%
Nuer	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Sheko	6	—	—	6	1.0%	3	—	—	—	3	0.5%	9	1.5%
Sheko/Amharic	1	—	—	1	0.2%	20	1	—	—	21	3.5%	22	3.7%
Sidamo	7	—	4	11	1.8%	3	—	—	—	3	0.5%	14	2.3%
Sidamo/Amharic/English	—	—	—	0	0.0%	—	—	1	—	1	0.2%	1	0.2%
Silt'e	5	—	—	5	0.8%	5	—	—	—	5	0.8%	10	1.7%
Somali	4	—	4	8	1.3%	8	3	—	—	11	1.8%	19	3.2%
Somali/English	1	—	—	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Suri	8	—	—	8	1.3%	—	—	—	—	0	0.0%	8	1.3%
Suri/Amharic	—	—	—	0	0.0%	20	6	—	—	26	4.3%	26	4.3%
Suri/English	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Suri/Amharic/English	—	—	—	0	0.0%	—	—	1	—	1	0.2%	1	0.2%
Tigrigna	5	—	4	9	1.5%	5	—	—	—	5	0.8%	14	2.3%

Language	Literacy Textbook-Related					Non-textbook/Supplementary							
	Student Literacy Textbook	Student Literacy Workbook	Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Tigrigna/English	1	2	—	3	0.5%	—	—	1	—	1	0.2%	4	0.7%
Wolaytta	4	—	4	8	1.3%	3	—	—	—	3	0.5%	11	1.8%
Unknown/ Amharic	—	—	—	0	0.0%	1	—	—	—	1	0.2%	1	0.2%
Unknown	—	—	—	0	0.0%	—	—	—	—	1[a]	0.2%	1	0.2%
Total	132	3	28	163	27.3%	378	37	12	7	435	72.7%	598	100.0%

Note: Percentages may not sum exactly because of rounding.
[a] The data collectors were not able to determine the subtype of one non-textbook title surveyed in an unknown language.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The textbook-related materials surveyed contained a wide variety of pedagogical components. As shown in **Figure B-1**, the following components were all common and found in similar numbers: vocabulary development and/or exercises, reading passages, comprehension questions, and writing instruction and/or practice. Similarly, most of the textbook-related materials appeared to employ a phonics approach[1] to reading instruction at least in part. However, grammar instruction and/or exercises only appeared in 21 titles.

Figure B-1. Pedagogical components of textbooks.

Number of textbook-related titles
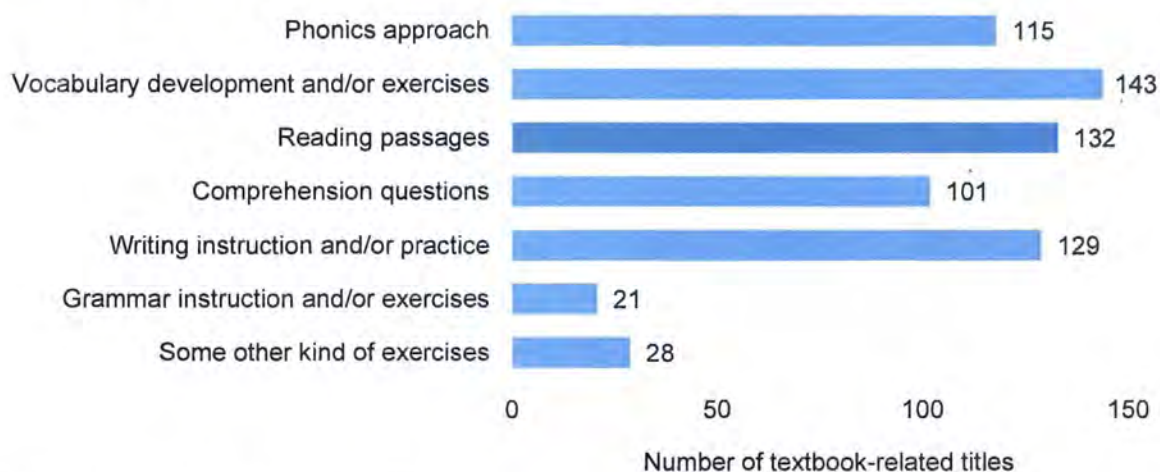
Note: Multiple responses were possible per title.

Sample pages from a Primary Grade 3 student textbook developed under the USAID–funded Reading for Ethiopia's Achievement Developed (READ) Technical Assistance project (**Figure B-2**) show a variety of these components combined in one lesson, including a phonics approach, a reading passage, and comprehension questions.

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[1] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises on sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

Figure B-2. An excerpt from a student literacy textbook with a variety of pedagogical lesson components.

Note: Excerpted from *Sidaamu Afoo: Rosaanote Maxaafa, Sayikki Kifile*, the Primary Grade 3 literacy textbook in Sidamo produced by USAID's READ Technical Assistance project.

Level

Designated Textbook Levels

Out of the 163 textbook-related materials, 150 (92 percent) were explicitly labeled by the publisher for a specific grade level or levels in the formal education system, with the highest number (48 [29 percent]) for Primary Grade 1. **Figure B-3** shows the level of textbooks as they were labeled. Books could be designated and recorded for more than one level. The data collectors encountered a few books designated for the pre-primary level (11 [seven percent]), which suggests that some materials are available, but fewer than for the higher grades.

Figure B-3. Publisher-designated levels for textbook-related materials.
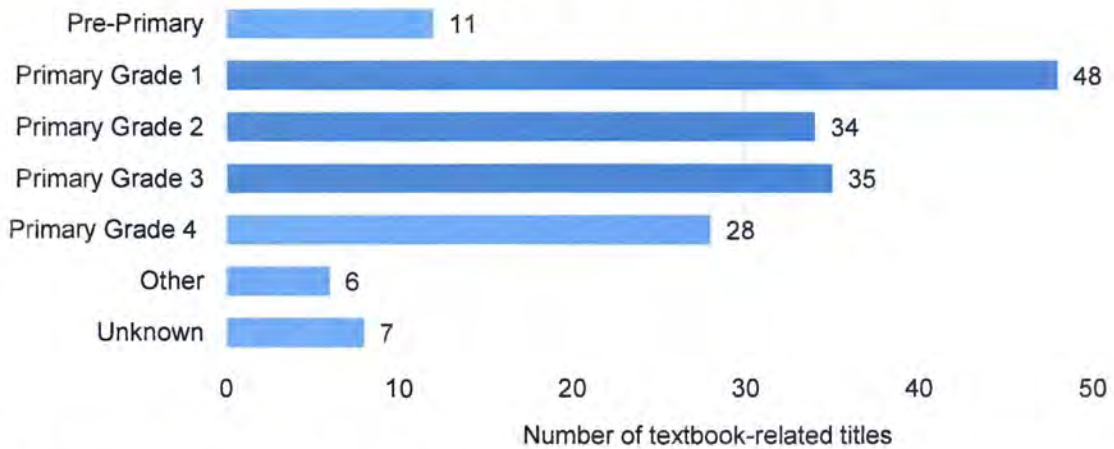
Note: Multiple responses were possible per title.

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this count for the 415 narrative and informational titles.

Figure B-4 shows that the titles were not evenly spread across words per page ranges. The narrative texts tended to have either 11–25 wpp or greater than 75 wpp (104 titles in each range), with fewer than half as many titles in either the 1–10 or 51–75 wpp ranges. As for the informational texts, there were very few encountered at all, and they were concentrated in the greater than 75-wpp range.

An example of a narrative text in the 26–50 wpp range is presented in **Figure B-5**.

Figure B-4. Number of narrative and informational non-textbook titles by maximum words per page

	Narrative	Informational
1-10 Words per page	43	6
11-25 Words per page	104	1
26-50 Words per page	79	1
51-75 Words per page	48	
>75 Words per page	104	24

Number of non-textbook titles

■ Narrative   Informational
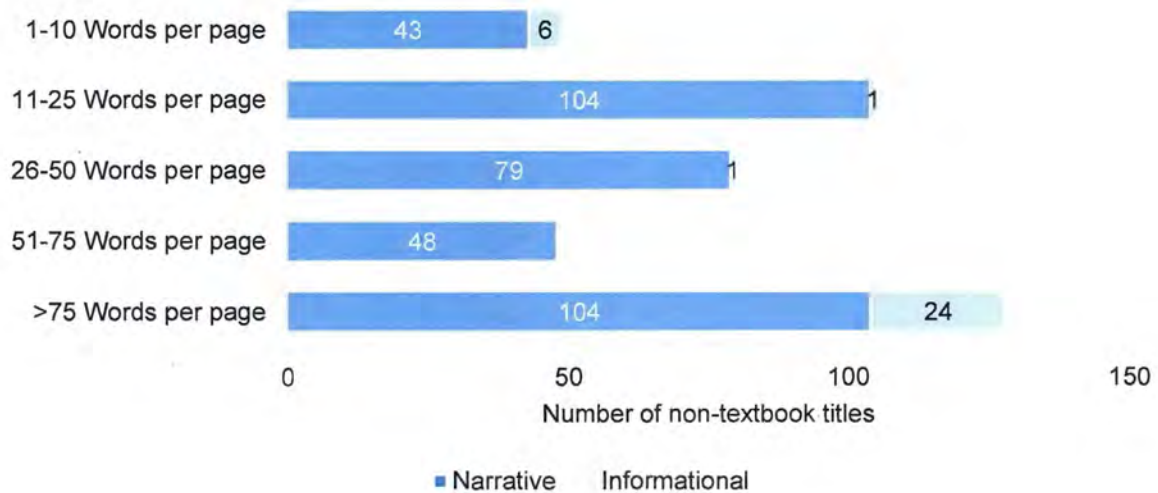
Note: The data are missing for five informational titles. This calculation was not performed for poetry or reference titles.

Figure B-5. Sample pages from an Amharic language narrative in the 26–50 maximum words per page range, written in Amharic Fiedel script

Note: This book is used as part of USAID's Transforming Education for Adults and Children in the Hinterland (TEACH) program.

Illustrations

All but one book (less than one percent) included in the survey had illustrations (**Figure B-6**). Black and white and/or grayscale only images appeared in 347 titles (58 percent), and all-color illustrations appeared in 206 (34 percent).

Figure B-6. Presence of illustrations

Is the book illustrated?

No, 0.2%

Yes, all color, 34%

Yes, all B&W and/or grayscale, 58%

Yes, some B&W and some color, 7%
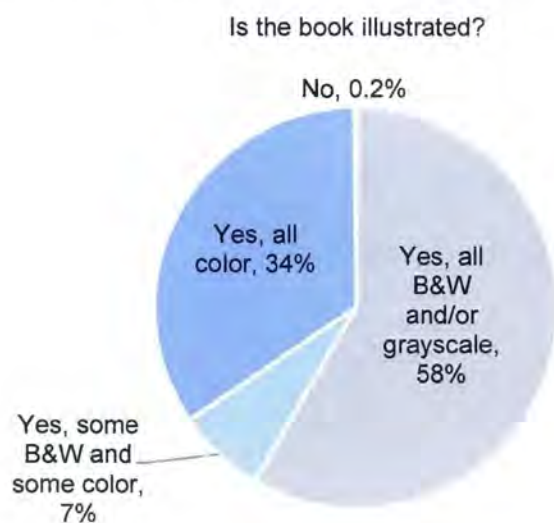
Content Themes

The data collectors examined 558 of the titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts and illustrations and checked off the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure B-7**.

The most common theme was animals, appearing in 276 titles (50 percent), followed closely by morals/values (248 [44 percent]). Additional popular topics included friendship (35 percent); family (31 percent); careers, professions, jobs, and work (18 percent); and the alphabet (18 percent). The least common topics included holidays and celebrations (three titles), energy (four titles), and the media (four titles).

Figure B-7. Content themes

Theme	Number of titles
Adventure	48
Agriculture	84
Alphabet	98
Animals	276
Biography	8
Business	8
Careers/Professions/Jobs/Work	100
Colors/shapes	12
Community	59
Culture	43
Education/School	88
Energy	4
Environment	47
Family	172
Food/Nutrition	73
Friendship	195
Health/Personal Hygiene	76
History	13
Holidays/Celebrations	3
Home Life	42
How to/Skill Development	32
Human Body	39
Humor	38
Media	4
Morals/Values	248
Not Evaluated/Unknown	24
Numeracy/Counting/Math	13
Peace/Justice/Equality/Huma...	10
Plants	40
Religion	17
Safety	92
Science	10
Social Studies/Civic Education	41
Travel/Transportation	22
Weather	14

Number of titles

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 558 titles for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. Out of the titles examined, the data collectors judged 451 (81 percent) as containing "very familiar" content, 77 (14 percent) with "semi-

familiar" content, and only one title (less than one percent) as containing "mostly unfamiliar" content for the target audience.

The data collectors also reviewed the illustrations of these 558 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, and other known cultural taboos. Most of the titles examined (499 [89 percent]) did not appear to include any potentially sensitive content (**Figure B-8**). Of the titles that did, the most commonly reported type of sensitive content was a traumatic event, which was found in 23 titles (four percent), with just a handful of titles for all the other categories. Overall, the incidence of potentially sensitive content was low.

Figure B-8. Potentially sensitive content in the illustrations
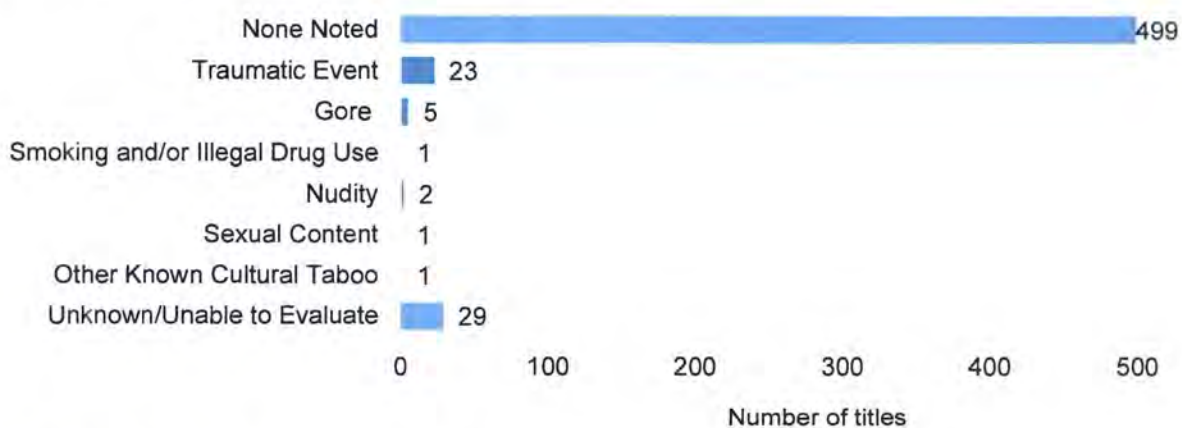
Note: Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of 522 titles regarding the frequency and equality of representation of people in the illustrations according to gender, ethnic or religious group identity, and disability. Excluded from this item were teacher's guides, reference materials, and titles that were not illustrated with humans or anthropomorphic animals.

Gender

The data collectors determined that gender was not apparent in the illustrations in 64 (12 percent) of the 522 titles, thus furthering limiting the subset used to examine gender balance and roles. Of the remaining titles, the data collectors judged 299 titles (57 percent) to portray an overall balance of both genders (**Figure B-9**). However, slightly more than half as many titles portrayed primarily one gender or another, 117 titles (22 percent) with primarily male characters and 42 titles (eight percent) with primarily female characters. These findings suggest that there is room for improvement regarding the gender balance of illustrations in early grade titles in Ethiopia.

Figure B-9. Frequency of gender representation in the illustrations

Portray an overall balance of both males and females — 299

Portray primarily males — 117

Portray primarily females — 42

0   100   200   300

Number of titles
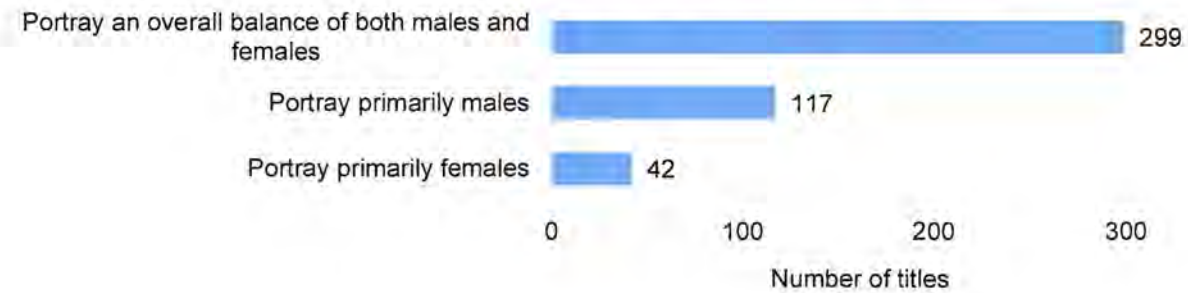
In cases where gender was apparent, the data collectors also judged whether male and female characters were portrayed "with equal skills, knowledge, accomplishments, or roles." Of the 449 titles examined for this item, data collectors judged 285 (63 percent) as portraying the genders equally compared to only 13 (three percent) of them as portraying the genders unequally. For the remaining 151 titles (34 percent), the data collectors considered that there was an insufficient basis for comparison.

Ethnic and Religious Group Identity

The data collectors examined the illustrations of the 522 titles for the frequency of ethnic and/or religious group representation. The data collectors judged that 428 titles (82 percent) did not portray characters with obvious ethnic or religious group identity markers. As shown in **Figure B-10**, only six titles (one percent) portrayed members of one ethnic or religious group to the exclusion of another group present in the local population. The data collectors categorized 33 titles (six percent) as unknown or unable to evaluate.

Figure B-10. Frequency of ethnic/religious group representation in the illustrations

No ethnic or religious group identity is evident in the illustrations. — 428

The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population. — 21

The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group. — 34

The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population. — 6

Number of titles: 0 100 200 300 400

For the overwhelming majority of titles, the data collectors judged that there was insufficient basis to compare the nature of the portrayal of ethnic or religious groups in the illustrations. The data collectors evaluated only 30 titles (six percent) to determine whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles." Of those titles, 29 were judged to portray the different groups comparably and only one to portray the groups unequally.

Disability

The data collectors also examined the illustrations in the 522 titles for the frequency of representation of people with disabilities. As shown in **Figure B-11**, 504 titles (97 percent) did not contain any illustrations of people with disabilities, but 18 titles (three percent) did. These findings suggest that the materials in Ethiopia could be enriched by incorporating illustrations that are more representative of the general population.

Figure B-11. Frequency of the representation of people with disabilities in the illustrations
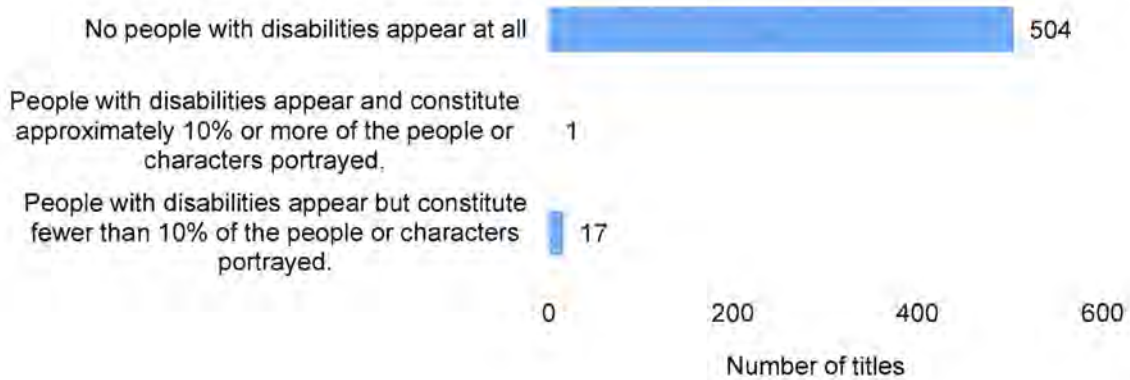
For the overwhelming majority of titles, the data collectors determined that there was insufficient basis to evaluate the nature of portrayal of individuals with. For 14 titles (three percent), the data collectors judged that individuals with disabilities were portrayed "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities," but in five other titles (less than one percent), individuals with disabilities were not portrayed in this manner.

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

Out of the 598 titles surveyed, 405 (68 percent) contained a copyright symbol. Most of the titles (274 [46 percent]) contained an explicit statement equivalent to "All Rights Reserved," and only 11 materials (two percent) granted some permissions for reuse. Another 237 titles (40 percent) did not contain any explicit statement regarding permissions or restrictions. The data collectors were unable to evaluate an additional 76 titles (13 percent) for explicit statements due to unfamiliarity with the language of publication. None of the titles identified in the survey in Ethiopia contained Creative Commons licenses.

Medium

Of the titles surveyed, 451 (75 percent) were in hard copy and 207 titles (35 percent) were in soft copy; 60 titles (10 percent) were available in both.

D. Landscape of the Production of Children's Reading Materials in African Languages in Ethiopia

Publisher Types

Figure B-12 shows the number of titles published by each type of organization. Private commercial companies were the largest producer of the materials surveyed, with 223 titles (37 percent). However, the government, nonprofit organizations, and faith-based organizations

were all also heavy contributors. As previously mentioned, the government contributions are likely to be even higher than shown, as the data collectors reported having some trouble accessing them. These findings suggest that various types of organizations actively engage in developing and publishing early grade reading materials in local languages, with no one type overwhelmingly dominating the industry.

Figure B-12. Number of titles by publisher type
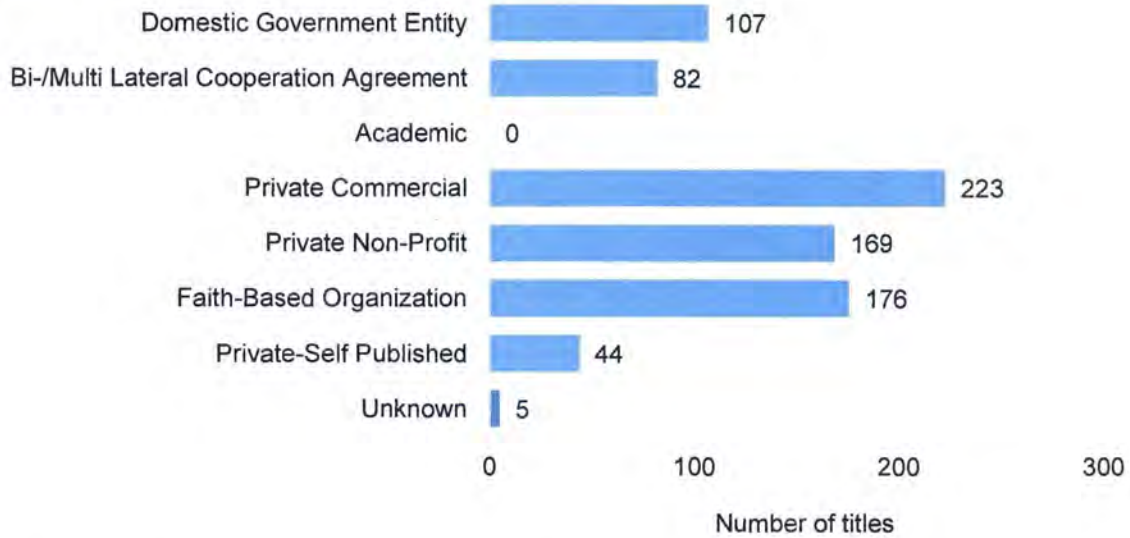
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

The data collectors recorded the year of publication data for the titles surveyed. As shown in **Figure B-13**, 373 titles (62 percent) were published since 2010.[2] This finding indicates that the current inventory is relatively recent.

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[2] Titles surveyed that used the Ethiopian calendar were converted to the Gregorian calendar by assuming that the date of publication was January 1 in the year specified, and adding seven years to the Ethiopian calendar year.

Figure B-13. Year of publication
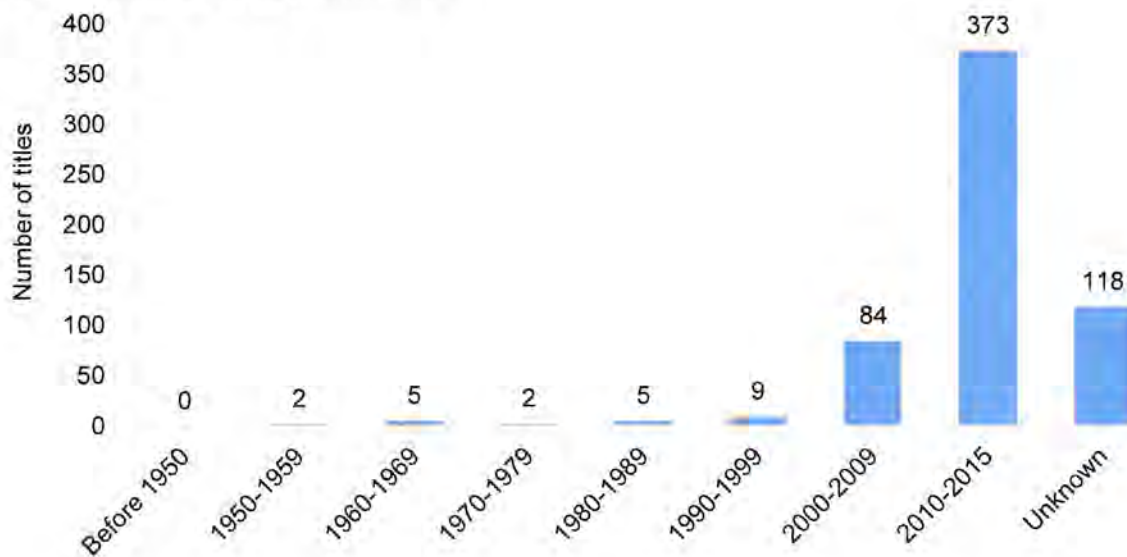
International Standard Book Number

Out of the 598 titles surveyed, the data collectors found that most of the titles (397 [66 percent]) did not contain an International Standard Book Number (ISBN). During a discussion of this finding with National Library and Archives experts, it was suggested that smaller publishers may lack information about the benefits of incorporating ISBNs into publishing practices.

Price

Out of the 598 titles surveyed, the data collectors recorded that 32 (five percent) were marked as free, and 537 (90 percent) were not. The data collectors were unable to evaluate whether the remaining 29 (five percent) of the titles were available for free.

The data collectors recorded price information for 64 textbooks and 157 non-textbooks, all in hard copy (see **Table B-3**). Not all subtypes had titles for which cost was recorded. Most of the titles were priced at a relatively low cost, with the most expensive being reference materials at an average cost of $2.10 (U.S. dollars [USD]. With the exception of reference materials, all other non-textbooks averaged at less than $1.00 per title, and textbooks were just slightly higher at $1.27.

Table B-3. Price of hard-copy materials available by book type

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Textbook-Related:				
Student textbook	3	41	$1.27	$0.09–$5.39
Student workbook	0	2	$0.54	$0.49–$0.59
Teacher's guide	16	16	$1.47	$1.47–$1.47
Non-textbook:				
Narrative	2	137	$0.89	$0.05–$2.70
Informational	0	5	$0.80	$0.29–$2.06
Reference	0	7	$2.10	$0.59–$7.25
Poetry, etc.	0	2	$0.81	$0.39–$1.23
All titles	21	212	$1.05	$0.05–$7.25

[a] Exchange rate: 1 Ethiopian Birr = 0.049 U.S. dollar (USD).

4. Remarks

The survey findings suggest that there is a market for a number of early reading materials in Ethiopian languages and that some private publishers are meeting this need. The government policies regarding language of instruction have helped spur local language communities to develop orthographies of their respective languages and to ensure that children are being taught in their home language at primary school, which in turn fuels the demand for more materials.

The data collectors stressed the strong possibility that more materials exist than were captured by the survey. Although the data collectors obtained some materials produced through partnerships between the Ministry of Education (MOE) and other organizations, collecting MOE–sponsored materials directly from the ministry proved to be difficult because of legal requirements. To ensure that data collection could be completed on time, the data collectors relied on materials provided by individuals, publishers, and nongovernmental organizations. With additional time and access to fully engage with the MOE, additional titles could be surveyed to supplement the findings outlined in this particular country report.

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Annex C. Summary of the Early Grade Reading Materials Survey in Kenya

Geography and Demographics

Size:	580,360 square kilometers (km²)
Population:	46 million (2015)
Capital:	Nairobi
Urban:	26% (2015)
Administrative Divisions:	47 counties
Religion:	83% Christian 11% Muslim 2% None 2% Traditionalists 2% Other 1% Unspecified

Source: Central Intelligence Agency (2015).
Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 6–11 years):[a]	7.3 million
Adult (aged >15 years)	78%	81%	75%	2013 Primary School GER:[a]	114%, up from 91% in 1999
Youth (aged 15–24 years)	86%	85%	87%	2013 Pre-primary School GER:[a]	60%, up from 43% in 1999

Sample EGRA Results:[b]	Language:	Kiswahili		Oral Reading Fluency:	Mean: 15.7 correct words per minute
	When:	2009			Standard Deviation: 15.4
	Where:	Nairobi, Thika, Nakuru			35% zero scores
	Who:	2,193 P2 students		Reading Comprehension:	0% reading with ≥80% comprehension; 43% zero scores

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P2 = Primary Grade 2. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: RTI International (2012).

Language

Number of Living Languages:[a] 67

Major Languages[b]	Estimated Population[c]	Government Recognized Status[d]

English	2.7 million (L2) (2003)	"Official"
Kiswahili	111,000 (L1) 16.5 million (L2) (2013)	"Official" and "national"
Gikuyu	6.6 million (L1)	Large regional LWC, but no official status
Ololuyia[e]	5.1 million (L1)	Large regional LWC, but no official status
Kalenjin[f]	4.8 million (L1)	Large regional LWC, but no official status
Dholuo	4 million (L1)	Large regional LWC, but no official status
Kamba	3.9 million (L1)	Large regional LWC, but no official status
Ekegusii	2.2 million (L1)	Large regional LWC, but no official status

Note: L1 = first language; L2 = second language; LWC = language of wider communication.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[c] Source: Lewis et al. (2015). Unless noted otherwise, all of the speaker population estimates are from the 2009 census data.
[d] Source: Article 7, Sections 1–2 of the Kenya Constitution.
[e] Lewis et al. (2015) classify Ololuyia [luy] as a macrolanguage that includes Lubukusu, Luidakho, Lukabaras, Lulogooli, Lutachoni, Nyala, Olukhayo, Olumarachi, Olumarama, Olunyole, Olushisa, Olutsotso, Oluwanga, and Saamia. The speaker population estimate is not dated.
[f] Lewis et al. (2015) classify Kalenjin [kln] as a macrolanguage that includes Keiyo, Kipsigis, Markweeta, Nandi, Okiek, Pökoot, Sabaot, Terik, and Tugen. The speaker population estimate is not dated.

Kenya Findings in Brief:

Kenya has a dynamic book industry that publishes for markets in Kenya and beyond its borders, which is demonstrated in the prevalence of commercial publishers and the number of titles found in neighboring countries' languages. With such a robust publishing industry and availability of resources such as the Kenya National Library Service, data collectors were able to survey a total of 1,009 titles. Although the official languages are Kiswahili and English, the data collectors found materials in 60 languages, and 42 percent of the titles were in Kiswahili. Textbook-related materials comprised 28 percent of the titles surveyed, the majority of which were student textbooks designated for Primary Grades 1 and 2. As observed in other countries, overall the materials were judged to be culturally appropriate for children and contained a balanced representation of both genders, but people with disabilities were not often represented. Kenya had the most soft-copy titles surveyed due to the African Storybook Project's vast online inventory of materials available in Kenyan languages. Although 89 percent of the titles were copyrighted, nearly one-fourth of them explicitly granted some permissions for reuse.

1. Language in Education Policy in Kenya

Article 7, Sections 1–2 of the Kenyan Constitution names Kiswahili and English as the official languages and Kiswahili as the national language. The policy of the Ministry of Education is that the "language of the catchment area" be used as the language of instruction (LOI) in the lower primary classes to ensure continuity between the language spoken at home and that spoken in school; in urban areas, which are linguistically heterogeneous, Kiswahili is to be used (Republic of Kenya, 2012).

However, in practice, English is widely used as the LOI in lower primary school (Begi, 2014; Khejeri, 2013; Piper and Miksic, 2011). For example, in a 2010 study of 979 classrooms in both

urban and rural schools in the Central and Nyanza provinces, children in Primary Grades 1 through 3 were taught in English 58 percent of the time overall, in Kiswahili 29 percent, and in the language of the catchment area ("mother tongue"), only 14 percent (Piper and Miksic, 2011). With respect to the prescribed LOI for each area, in the rural areas, the use of the language of the catchment area ranged from 18 percent through 31 percent, and in urban areas, Kiswahili was used 31 or 32 percent of the time. Instead, English usage ranged from a low of 48 percent in rural schools in the Nyanza Province to a high of 67 percent in the urban schools in the Central Province. Contrary to the national policy, in practice the use of mother tongue has even been prohibited at some schools (Spernes, 2012), and students may be punished for speaking it at school (Wangia et al., 2014).

As stated in Article 7, Section 3 of its Constitution, as a nation, Kenya is to strive to protect and support the diversity of Kenyan languages and to promote the development and use of Kenyan languages, Kenyan Sign Language, braille, and other communication formats and technologies accessible to persons with disabilities. The country is currently discussing the Languages of Kenya Policy and Bill. If the bill is enacted, the Kenya Languages Council will be established to manage linguistic diversity through language directorates and other structures. It is anticipated that the bill will create more opportunities to promote community languages within the educational system (Republic of Kenya Ministry of Sports, Culture, and Arts, 2014).

Although most of the Kenyan languages are written with the Latin alphabet, using Latin vowel conventions and simplified English conventions for consonants, only Kiswahili has a standardized orthography (Mbaabu, 1996). For other languages, their orthographies are considered as approved if they are used by the Kenya Institute of Curriculum Development. There is currently a lack of systematic language planning due to the absence of structures for language development and standardization supported by the Kenyan government. Community efforts to promote their languages through writing are under-resourced, as are language bodies such as Ukuria wa Urumwe wa Gikuyu (UUGI, the Gikuyu Language Committee) or Chama cha Kiswahili cha Taifa (CHAKITA, the National Kiswahili Association). CHAKITA is a voluntary institution driven by a few linguists, but it does not receive any support from the government (Simala et al., 2014).

2. Data Collection

Kenya has a dynamic book industry that publishes for markets in Kenya, Uganda, Tanzania, Rwanda, and Zambia (Ogechi and Bosire-Ogechi, 2002). Although most publishers are based in Nairobi, a few are based in rural areas. For this study, the data collectors made strategic decisions to maximize the number of titles surveyed, such as to contact publishers directly for copies of all books released by their firms for early grade reading. The data collectors paid particular attention to educational parastatals such as the Kenya Institute of Curriculum Development, the Jomo Kenyatta Foundation, the Kenya Literature Bureau, and the Kenya National Library Service (KNLS). The data collectors also included nongovernmental organizations (NGOs) involved in the education sector (e.g., SIL International) and religious translation institutions (e.g., the Bible Translation and Literacy [BTL] project). Moreover, the

data collectors traveled to bookshops in Kisumu and Nyeri in search of materials that may have been released by rural-based publishers.

Most of the books approved for use in Kenyan primary schools are entered in the "Orange Book" published by the Ministry of Education, Science, and Technology (MoEST) (Republic of Kenya Ministry of Education, 2014 and 2015). The data collectors surveyed all early childhood development materials found in the Orange Book and identified and captured many other materials that were not on the list.

The data collectors surveyed a total of 1,009 titles produced by more than 100 different publishers. The data collectors found most of the titles through direct contact with publishers (641 [64 percent]); they found the second highest number of materials (245 [24 percent]) online, primarily from the South African Institute for Distance Education's (SAIDE's) African Storybook Project Web site.

3.   Findings

A. Availability of Materials for Early Grade Reading in Kenyan and Other African Languages

Materials by Language

The 1,009 titles surveyed were published in 60 different languages: 59 African and one European (English). However, 195 of the titles were published in 25 languages that are considered to originate from Kenya's neighbors, including 10 languages from Uganda, six from Zambia, two each from Malawi and South Africa, and one each from Rwanda, Ethiopia, Mozambique, Somalia, and even Nigeria. Although some of these languages have native speaker populations inside Kenya as well, these findings nonetheless underscore that Kenya is a publishing hub for the region. Due to the exceptional number of non-Kenyan languages in the inventory, the number of titles found in each language is presented in two separate tables: **Table C-1** for Kenyan languages and **Table C-2** for non-Kenyan languages.

The data collectors found the highest number of titles (424 [42 percent)] in Kiswahili. According to Article 7, Section 2 of the Kenyan Constitution, Kiswahili is both the national language and one of two official languages (with English). Despite the diversity apparent in Tables C-1 and C-2, 40 out of the 60 languages represented had fewer than 10 titles each. A relatively large number of titles (27) were found in Kitharaka, a language group with a relatively small speaker population (176,000) (Lewis et al., 2015). The data collectors found more titles in Kitharaka than in several other languages with more than one million speakers. However, for many Kenyan languages, the data collectors did not encounter any relevant materials. Although some of those languages are spoken by fewer than 50,000 speakers, others have much larger speaker populations numbering in the hundreds of thousands.

Because the focus of the study was on African languages, English titles were not targeted unless they appeared bilingually beside an African language or were shell books (i.e., a book intended and authorized for adaptation and/or translation into other languages). The data collectors logged

nine monolingual English titles, all of which were shell books published by SAIDE's African Storybook Project and BTL and designed to be adapted to other languages. The remaining English titles were bilingual with an African language.

Table C-1.   Kenyan Languages in Which Materials Were Found in Kenya

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Kenya[c]	Titles per Language	Percentage of All Titles Surveyed[d]
1	Kiswahili	swh	111,000 16,500,000 (L2)	424	42.0%
2	Kamba	kam	3,893,000	70	6.9%
3	Maasai	mas	842,000	54	5.4%
4	Gikuyu	kik	6,623,000	36	3.6%
5	English[e]	eng	2,700,000 (L2)	35	3.5%
6	Dholuo	luo	4,184,000	31	3.1%
7	Kitharaka	thk	176,000	27	2.7%
8	Lubukusu	bxk	1,433,000	17	1.7%
9	Kigiryama	nyf	944,000	15	1.5%
10	Oluwanga	lwg	309,000	15	1.5%
11	Ekegusii	guz	2,205,300	14	1.4%
12	Turkana	tuv	989,000	12	1.2%
13	Lulogooli	rag	618,300	11	1.1%
14	Kimiiru	mer	1,660,000	10	1.0%
15	Rendille	rel	60,000	10	1.0%
16	Kipfokomo	pkb	95,000	9	0.9%
17	Marakwet	enb	180,000	8	0.8%
18	Kiembu	ebu	324,000	7	0.7%
19	Kiwiilwana	mlk	16,800	7	0.7%
20	Oluluyia	luy	5,084,800	6	0.6%
21	Sabawoot	spy	241,000	5	0.5%
22	Samburu	saq	237,000	5	0.5%
23	Orma	orc	66,300	4	0.4%
24	Duruma	dug	397,000	2	0.2%
25	Kalenjin	kln	4,823,400	2	0.2%
26	Digo	dig	401,000	1	0.1%
27	Suba	sxb	139,000	1	0.1%
28	Igikuria	kuj	690,000	1	0.1%
29	Nandi	niq	949,000	1	0.1%
30	Olusamia	lsm	480,000	1	0.1%
31	Pokoot	pko	703,400	1	0.1%
32	Sagalla	tga	100,000	1	0.1%
33	Taveta	tvs	21,000	1	0.1%
34	Tugen	tuy	140,000	1	0.1%
35	Waata	ssn	12,600	1	0.1%

Note: ISO = International Organization for Standardization; L2 = second language.
[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al. (2015). Dates for the speaker population estimates vary by language, but most are from the 2009 census.
[d] Due to bilingual titles, the total will surpass 100%.
[e] English is included in this table due its status as an official language.

Table C-2. Languages from Neighboring Countries in Which Materials Were Found in Kenya

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Kenya (if Applicable) and Country of Origin[c]	Titles per Language	Percentage of All Titles Surveyed[d]
1	Kinyarwanda	kin	6,490,000 in native Rwanda	47	4.7%
2	Soga	xog	2,060,000 in native Uganda	38	3.8%
3	Teso	teo	339,000 in Kenya; 1,570,000 in native Uganda	24	2.4%
4	Chichewa/Nyanja	nya	7,000,000 in native Malawi	13	1.3%
5	Konzo	koo	609,000 in native Uganda	10	1.0%
6	Lomwe (Malawi)	lon	850,000 in native Malawi	9	0.9%
7	Hausa	hau	18,500,000 in native Nigeria	8	0.8%
8	Lozi	loz	724,600 in native Zambia	5	0.5%
9	Lunda	lun	403,000 in native Zambia	5	0.5%
10	Tonga (Zambia)	toi	1,467,000 in native Zambia	5	0.5%
11	Bemba	bem	4,110,000 in native Zambia	4	0.4%
12	Nyungwe	nyu	439,000 in native Mozambique	4	0.4%
13	Somali	som	2,386,000 in Kenya; 6,460,000 in native Somalia	4	0.4%
14	Kaonde	kqn	242,000 in native Zambia	3	0.3%
15	Lugbara	lgg	1,637,000 in native Uganda	3	0.3%
16	Luvale	lue	735,000 in native Zambia	3	0.3%
17	Lango	laj	1,490,000 in native Uganda	2	0.2%
18	Gwere	gwr	409,000 in native Uganda	1	0.1%
19	Kakwa	keo	19,000 in native Uganda	1	0.1%
20	Masaaba	myx	1,120,000 in native Uganda	1	0.1%
21	Nyole	nuj	341,000 in native Uganda	1	0.1%
22	Oromo (Borana–Arsi–Guji/Southern)	gax	278,000 in Kenya; 25,500,000 in native Ethiopia	1	0.1%
23	Sepedi	nso	4,631,000 in native South Africa	1	0.1%
24	Tooro	ttj	488,000 in native Uganda	1	0.1%
25	Tsonga	tso	4,009,000 in native South Africa	1	0.1%

Note: ISO = International Organization for Standardization.
[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate ISO codes are provided in parentheses.
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al. (2015). Dates for the speaker population estimates vary by language.
[d] Due to bilingual titles, the total will surpass 100%.

Types of Materials

Table C-3 details the types of materials found by language. Key observations include the following:

- Of the 1009 titles, 284 (28 percent) were literacy textbooks or related materials, and 725 (72 percent) were supplementary, non-textbook materials.

- Most of the textbook-related titles (206 [72 percent]) were student textbooks or primers, and the majority (585 [80 percent]) of supplementary titles were narrative.

- The data collectors found 52 teacher's guides, making a teacher's guide to textbook ratio of approximately 1:4. They data collectors encountered only 24 student literacy workbook titles.

- The data collectors found 118 (12 percent) informational texts, but only 17 reference titles (two percent) and only 15 titles (one percent) of poetry, songs, riddles, or proverbs.

- The data collectors found that 959 titles (95 percent) were monolingual.

Table C-3. Types of Materials, by Language

	Textbook Related					Non-textbook/Supplementary							
	Student Literacy Textbook	Student Literacy Workbook	Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total Number	Percentage of Total Titles
Kenyan Languages:													
Dholuo	11	—	—	11	1.1%	12	2	1	—	15	1.5%	26	2.6%
Dholuo/English	—	1	—	1	0.1%	—	—	2	1	3	0.3%	4	0.4%
Dhuluo/Kiswahili/ English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Digo	—	—	1	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Duruma	—	—	—	0	0.0%	2	—	—	—	2	0.2%	2	0.2%
Ekegusii	2	—	—	2	0.2%	12	—	—	—	12	1.2%	14	1.4%
Ekisuba	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
English	—	—	—	0	0.0%	9	—	—	—	9	0.9%	9	0.9%
Gikuyu	20	1	5	26	2.6%	4	1	—	2	7	0.7%	33	3.3%
Gikuyu/Kiswahili	—	—	—	0	0.0%	—	1	1	—	2	0.2%	2	0.2%
Gikuyu/English	—	—	—	0	0.0%	—	—	—	1	1	0.1%	1	0.1%
Igikuria	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Kalenjin	—	—	—	0	0.0%	1	—	—	1	2	0.2%	2	0.2%
Kamba	9	—	1	10	1.0%	55	4	—	1	60	5.9%	70	6.9%
Kiembu	1	—	1	2	0.2%	4	—	—	1	5	0.5%	7	0.7%
Kigiryama	9	—	—	9	0.9%	6	—	—	—	6	0.6%	15	1.5%
Kimiiru	6	1	—	7	0.7%	2	—	—	—	2	0.2%	9	0.9%
Kipfokomo	3	—	3	6	0.6%	2	1	—	—	3	0.3%	9	0.9%
Kiswahili	57	10	21	88	8.7%	287	29	4	3	323	32.0%	411	40.7%
Kiswahili/English	—	3	—	3	0.3%	2	1	3	—	6	0.6%	9	0.9%
Kiswahili/Oluluyia	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Kitharaka	13	—	13	26	2.6%	1	—	—	—	1	0.1%	27	2.7%
Kiwiilwana	4	—	1	5	0.5%	—	2	—	—	2	0.2%	7	0.7%
Lubukusu	3	2	1	6	0.6%	10	1	—	—	11	1.1%	17	1.7%
Lulogooli	1	—	—	1	0.1%	4	1	1	2	8	0.8%	9	0.9%
Lulogooli/English	—	—	—	0	0.0%	—	—	1	1	2	0.2%	2	0.2%

	Textbook Related					Non-textbook/Supplementary							
	Student Literacy Textbook	Student Literacy Workbook	Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total Number	Percentage of Total Titles
Maasai	2	1	—	3	0.3%	35	15	—	—	50	5.0%	53	5.3%
Maasai/English	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Marakwet	6	—	—	6	0.6%	1	1	—	—	2	0.2%	8	0.8%
Nandi	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Oluluyia	2	—	—	2	0.2%	3	—	—	—	3	0.3%	5	0.5%
Olusamia	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Oluwanga	—	—	—	0	0.0%	13	2	—	—	15	1.5%	15	1.5%
Orma	1	—	—	1	0.1%	3	—	—	—	3	0.3%	4	0.4%
Pokoot	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Rendille	9	—	—	9	0.9%	—	—	1	—	1	0.1%	10	1.0%
Sabawoot	1	—	—	1	0.1%	4	—	—	—	4	0.4%	5	0.5%
Sagalla	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Samburu	—	—	1	1	0.1%	1	2	1	—	4	0.4%	5	0.5%
Taveta	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Tugen/English	—	—	—	0	0.0%	—	—	—	1	1	0.1%	1	0.1%
Turkana	—	—	—	0	0.0%	9	3	—	—	12	1.2%	12	1.2%
Waata	—	—	—	0	0.0%	—	1	—	—	1	0.1%	1	0.1%
Subtotal Kenyan Languages	**162**	**19**	**48**	**229**	**22.7%**	**489**	**67**	**16**	**14**	**586**	**58.1%**	**828**	**82.1%**
Neighboring Country Languages:													
Bemba	4	—	—	4	0.4%	—	—	—	—	0	0.0%	4	0.4%
Chichewa/Nyanja	3	1	—	4	0.4%	9	—	—	—	9	0.9%	13	1.3%
Gwere/English	—	—	—	0	0.0%	—	—	—	1	1	0.1%	1	0.1%
Hausa	—	—	—	0	0.0%	8	—	—	—	8	0.8%	8	0.8%
Kakwa	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Kaonde	3	—	—	3	0.3%	—	—	—	—	0	0.0%	3	0.3%
Kinyarwanda	14	4	4	22	2.2%	12	12	—	—	24	2.4%	46	4.6%
Konzo	3	—	—	3	0.3%	1	4	—	—	5	0.5%	8	0.8%
Konzo/English	—	—	—	0	0.0%	1	—	1	—	2	0.2%	2	0.2%

	Textbook Related					Non-textbook/Supplementary							
	Student Literacy Textbook	Student Literacy Workbook	Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total Number	Percentage of Total Titles
Lango	—	—	—	0	0.0%	—	2	—	—	2	0.2%	2	0.2%
Lomwe	—	—	—	0	0.0%	8	1	—	—	9	0.9%	9	0.9%
Lozi	5	—	—	5	0.5%	—	—	—	—	0	0.0%	5	0.5%
Lugbara	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Lugbara/English	—	—	—	0	0.0%	2	—	—	—	2	0.2%	2	0.2%
Lunda	5	—	—	5	0.5%	—	—	—	—	0	0.0%	5	0.5%
Luvale	3	—	—	3	0.3%	—	—	—	—	0	0.0%	3	0.3%
Masaaba	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Nyole	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Nyungwe	—	—	—	0	0.0%	4	—	—	—	4	0.4%	4	0.4%
Oromo	—	—	—	0	0.0%	—	1	—	—	1	0.1%	1	0.1%
Sepedi	—	—	—	0	0.0%	—	1	—	—	1	0.1%	1	0.1%
Soga	—	—	—	0	0.0%	15	23	—	—	38	3.8%	38	3.8%
Somali	2	—	—	2	0.2%	2	—	—	—	2	0.2%	4	0.4%
Teso	—	—	—	0	0.0%	22	1	—	—	23	2.3%	23	2.3%
Teso/English	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Tonga	4	—	—	4	0.4%	1	—	—	—	1	0.1%	5	0.5%
Tooro/English	—	—	—	0	0.0%	—	1	—	—	1	0.1%	1	0.1%
Tsonga	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Subtotal Neighbor Languages	*46*	*5*	*4*	*55*	*5.5%*	*91*	*46*	*1*	*1*	*139*	*13.8%*	*194*	*19.2%*
Grand Total	**208**	**24**	**52**	**284**	**28.1%**	**580**	**113**	**17**	**15**	**725**	**71.9%**	**1,009**	**100.0%**

Note: Percentages may not sum exactly to 100% due to rounding.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The data collectors analyzed the 284 textbook-related materials with regard to their pedagogical components. The most common component was vocabulary development and/or exercises, appearing in 135 titles (48 percent), and the least common was comprehension questions, in 44 titles (15 percent). In 99 titles (35 percent), data collectors observed what could be construed as a phonics approach to reading instruction.[1]

Figure C-1. Pedagogical components in textbook-related materials
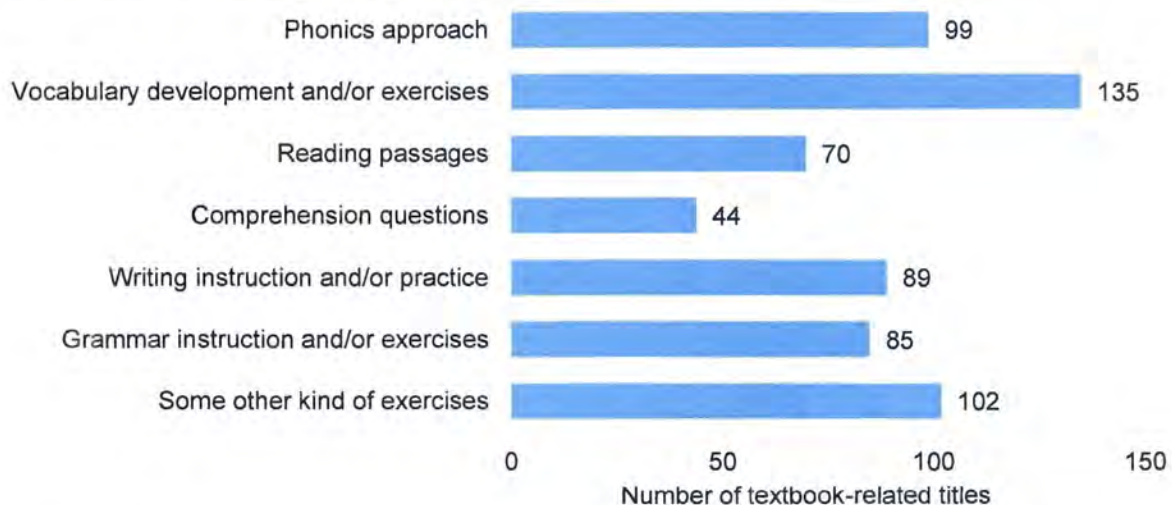
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Of the 284 textbook-related titles surveyed, 249 (88 percent) were explicitly labeled for a specific grade level, as shown in **Figure C-2**. The largest number of titles were labeled for Primary Grade 1 (119 [42 percent]). The data collectors found relatively few pre-primary titles.

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[1] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

Figure C-2. Publisher-designated levels for textbook-related materials
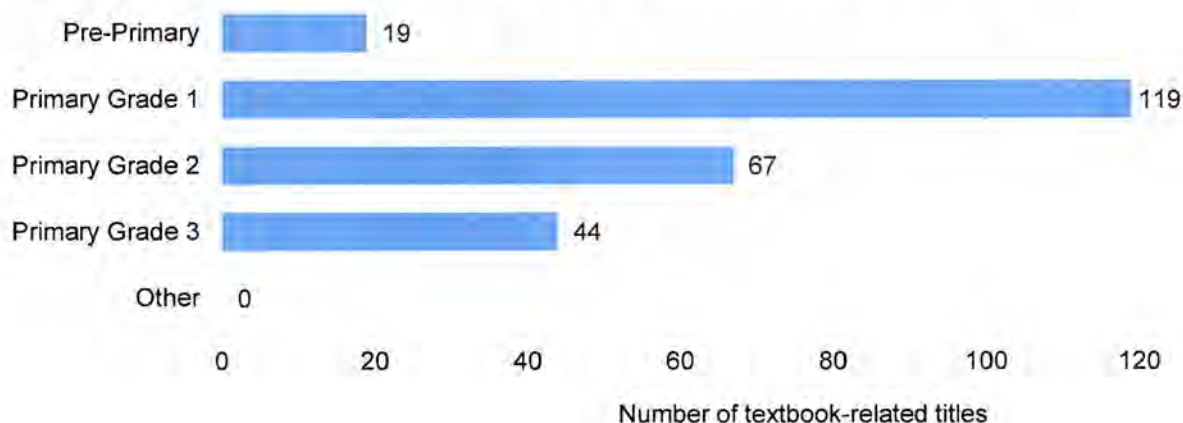
Horizontal bar chart. X-axis: "Number of textbook-related titles" from 0 to 120.

- Pre-Primary: 19
- Primary Grade 1: 119
- Primary Grade 2: 67
- Primary Grade 3: 44
- Other: 0

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this calculation for 677 narrative and informational texts.

As shown in **Figure C-3**, the largest number of supplementary titles (211 [31 percent]) fell within the 26–50 wpp range. Although fewer, the 110 titles (16 percent) written at the lowest level (1–10 wpp) are still many more than were found in other countries in the survey, and, even more unusually, was nearly evenly split between narrative and informational texts. The intermediate range of 51–75 wpp had the lowest number of titles (86 [13 percent]); however, the most advanced range of more than 75 wpp had almost equally few titles (93 [14 percent]). This is another stark contrast to the overall findings, in which the most advanced range was also the most common.

Figure C-3. Number of narrative and informational non-textbook titles by maximum words per page

Words per page	Narrative	Informational
1-10 Words per page	60	50
11-25 Words per page	147	30
26-50 Words per page	194	17
51-75 Words per page	78	8
>75 Words per page	91	2

Number of non-textbook titles

- Narrative   Informational
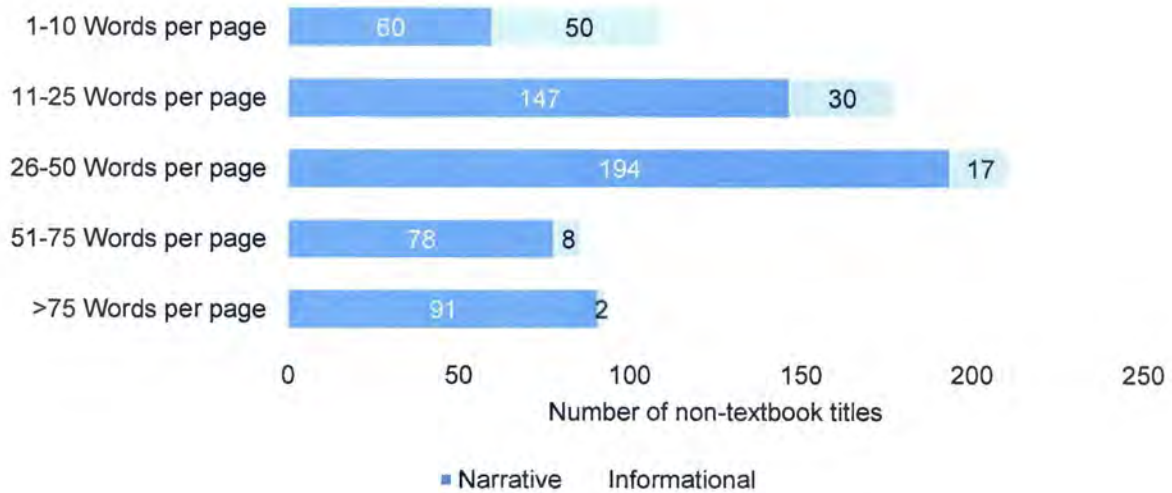
Note: The data for 16 narrative or supplementary titles are missing. This calculation was not performed for poetry or reference titles.

Illustrations

Out of the 1,009 titles surveyed, only 67 (seven percent) did not have illustrations, whereas 232 titles (23 percent) were illustrated in all black and white and/or grayscale, 684 (68 percent) in all color, and 25 (two percent) with a mixture of black and white and color (**Figure C-4**). The data about illustrations in one title are missing.

Figure C-4. Presence and type of illustrations

Is the book illustrated?

Not reported, 0.1%

No, 7%

Yes, all B&W and/or grayscale, 23%

Yes, some B&W and some color, 2%

Yes, all color, 68%
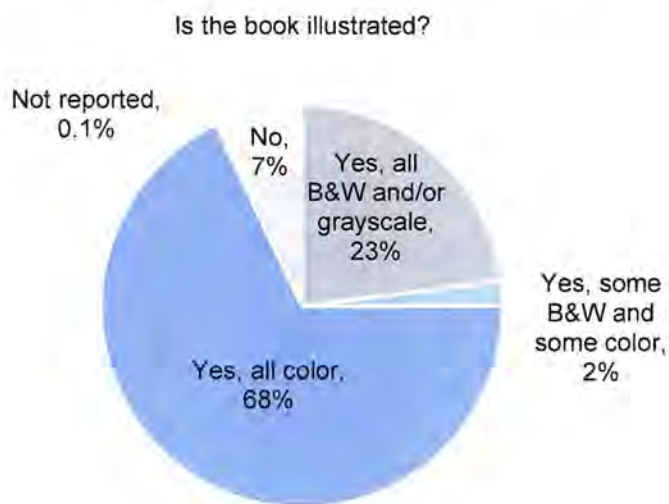
Content Themes

The data collectors examined 942 of the titles for content themes, excluding teacher's guides and reference materials. They skimmed the texts and illustrations and checked off the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure C-5**.

The most common theme was education/school, appearing in 510 titles (54 percent), followed by morals/values (441 [47 percent]), home life (287 [30 percent]), and animals (264 [28 percent]). The least common topics in the titles were biography (with zero) and energy and media (each with two titles [less than one percent]).

Only 23 titles (two percent) were found to have overtly addressed religious themes; 22 (two percent) featured Christianity and one (less than one percent) Islam.

Figure C-5. Content themes

Content theme	Number of titles
Adventure	49
Agriculture	57
Alphabet	79
Animals	264
Biography	0
Business	16
Careers/Professions/Jobs/Work	34
Colors or Shapes	21
Community	73
Culture	38
Education/School	510
Energy	2
Environment	36
Family	161
Food/Nutrition	82
Friendship	60
Health/Personal Hygiene	77
History	6
Holidays/Celebrations	19
Home Life	287
How to/Skill Development	146
Human Body	35
Humor	106
Media	2
Morals/Values	441
Numeracy/Counting/Math	29
Peace/Justice/Equality/Human...	5
Plants	15
Religion	23
Safety	23
Science	27
Social Studies/Civic Education	125
Technology	14
Travel/Transportation	34
Unknown/Unable to Evaluate	25
Weather	22

Number of titles

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors examined 942 titles for the level of familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. Of the titles examined, 790

(84 percent) were judged to contain "very familiar" content, 106 (11 percent) "semi-familiar" content, and 43 (five percent) "mostly unfamiliar" content for the target audience. Data collectors were unable to evaluate content familiarity for three titles.

The data collectors examined the same 942 titles for any potentially sensitive content for young readers. The data collectors did not perceive any potentially sensitive content in 900 of the titles (96 percent). Of the remaining titles, the most common topics involving sensitive content were traumatic events (21 [two percent]) and nudity (14 [one percent]; **Figure C-6**). Overall, the incidence of potentially sensitive content was very low.

Figure C-6. Potentially sensitive content in the illustrations
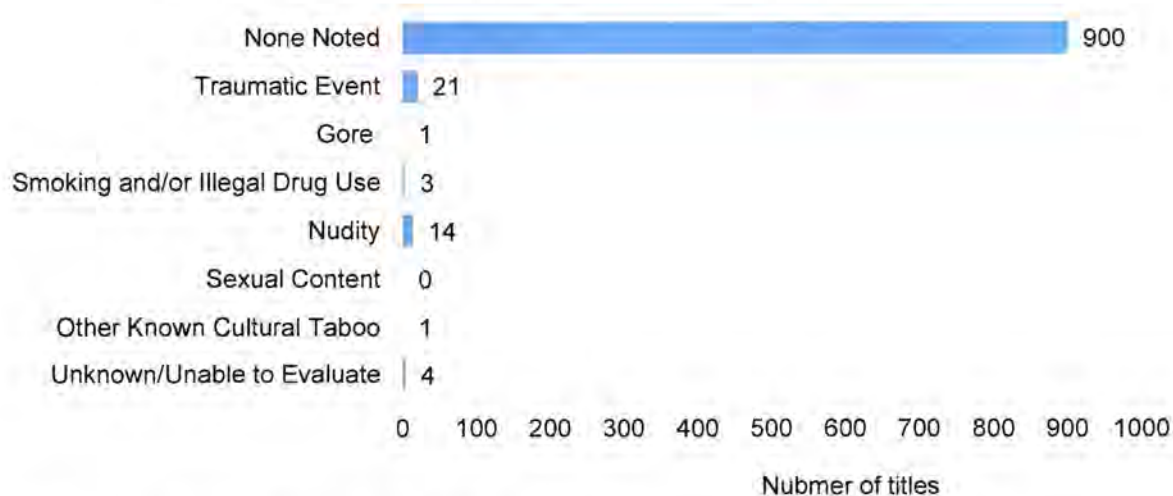
Note: Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of 842 titles with regard to the frequency and equality of representation of people in the illustrations according to gender, ethnic or religious group identity, and disability. Excluded from this item were teacher's guides, reference materials, and titles that were not illustrated with humans or anthropomorphic animals.

Gender

Of the 842 titles, the data collectors determined that gender was not apparent in the illustrations in 147 titles, thus further limiting the subset of titles used to evaluate gender balance in 695 titles. Of those titles, the data collectors judged 612 (88 percent) as portraying an overall balance of both genders (**Figure C-7**), whereas 52 (seven percent) portrayed primarily male characters, and 31 (four percent) portrayed primarily female characters.

Figure C-7. Frequency of gender representation in the illustrations
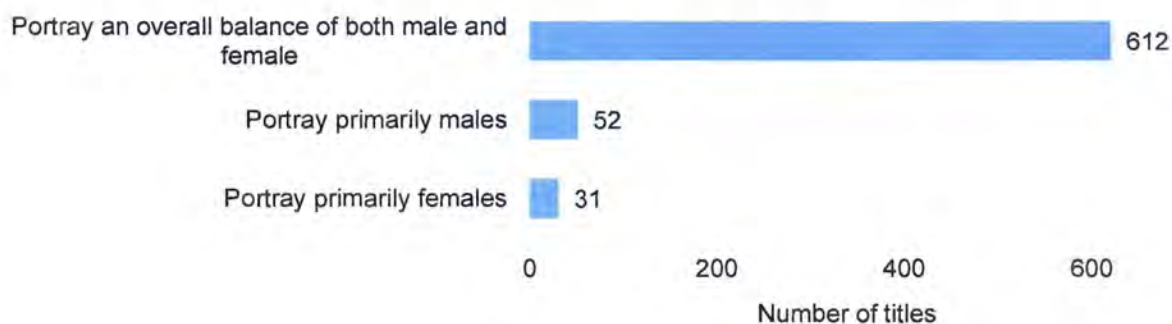
In cases where gender was apparent, the data collectors judged whether male and female characters were portrayed "with equal skills, knowledge, accomplishments, or roles" in the illustrations. The data collectors examined 686 titles for this item and judged 593 (86 percent) as portraying the genders equally; 16 titles (two percent) portrayed the genders unequally. For 77 titles (11 percent), the data collectors considered that there was an insufficient basis for comparison.

Ethnic and Religious Group Identity

The data collectors also examined the 842 illustrated titles for their portrayals of ethnic and religious groups (**Figure C-8**). Most of these titles (753 [89 percent]) did not portray identifiable ethnic or religious groups. Of the remaining titles, the data collectors perceived 30 titles (four percent) as portraying different ethnic or religious groups proportionally to their presence in the local population. The data collectors judged 40 titles (five percent) as portraying only one group, but in populations composed overwhelmingly of that group. The data collectors judged only 12 titles (one percent) as portraying one group to the exclusion of other groups present in the local population. For seven titles (one percent), the data collectors were unable to determine whether the groups were depicted proportionally.

For the overwhelming majority of titles, the data collectors judged that there was insufficient basis for the comparison of the portrayal, if any, of ethnic or religious groups in the illustrations. The data collectors evaluated only 34 titles for the question of whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles." Of those titles, the data collectors judged that only one title (three percent) portrayed the groups unequally.

Figure C-8. Frequency of ethnic/religious group representation in the illustrations

No ethnic or religious group identity is evident in the illustrations.	753
The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population.	30
The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group.	40
The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population.	12

0   100   200   300   400   500   600   700
Number of titles

Disability

The data collectors evaluated 842 illustrated titles for the presence of people with disabilities. Only eight titles (one percent) were found to portray any people with disabilities in the illustrations. In six out of the eight titles, the data collectors judged the illustrations to portray people with disabilities "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

Out of the 1,009 titles surveyed, most of them (903 [89 percent]) contained a copyright symbol. Regarding restrictions or permissions for reuse, 514 (51 percent) contained an explicit statement along the lines of "All Rights Reserved," 243 (24 percent) were licensed under Creative Commons, 13 (one percent) otherwise granted some permissions for reuse, and 235 (23 percent) did not contain any explicit statements either way. Almost all of the Creative Commons–licensed titles were from SAIDE's African Storybook Project. Despite this large number, the use of Creative Commons licenses is restricted to just a handful of publishers and is not a widespread practice in the Kenyan book market.

Medium

The data collectors found 661 titles in hard copy and 520 in soft copy, of which 172 materials were available in both media. A large majority of the soft-copy titles were collected from

SAIDE's African Storybook Project Web site, which provides free digital versions for download of several hundreds of titles in numerous African languages.

D. Landscape of the Production of Children's Reading Materials in African Languages in Kenya

Publisher Types

For-profit, commercial publishers were the most common type of publisher, producing 452 (45 percent) of the 1,009 titles surveyed. In addition, 374 titles (37 percent) came from nonprofit organizations (**Figure C-9**). Many titles have been produced by government entities and bilateral cooperation agreements, especially with the Department for International Development and the U.S. Agency for International Development.

Figure C-9. Number of titles by publisher type
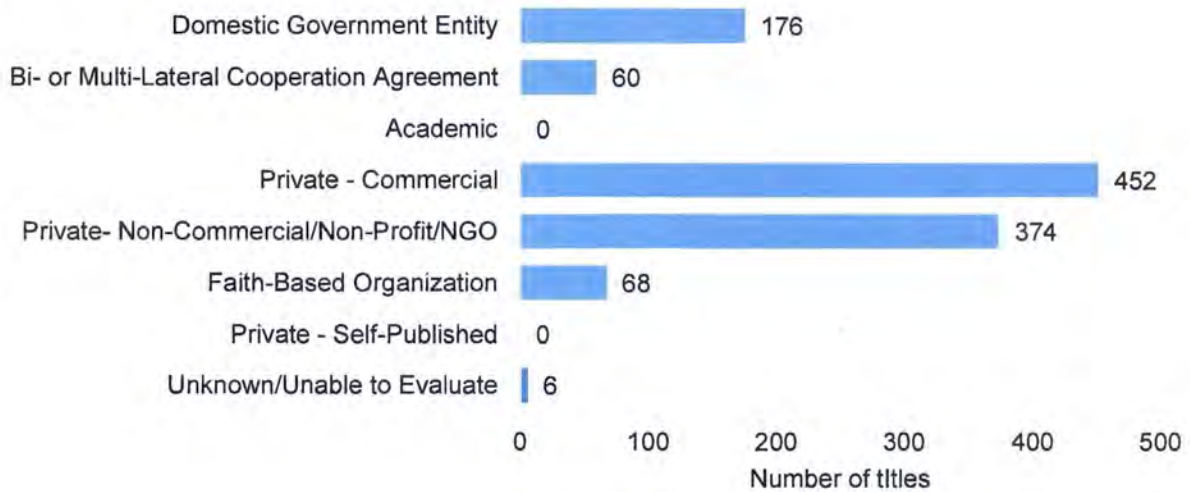
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

Overall, the inventory is fairly recent. Out of the 1,009 titles surveyed, 645 (64 percent) were published from 2010 through 2015 (**Figure C-10**).

Figure C-10. Year of publication.
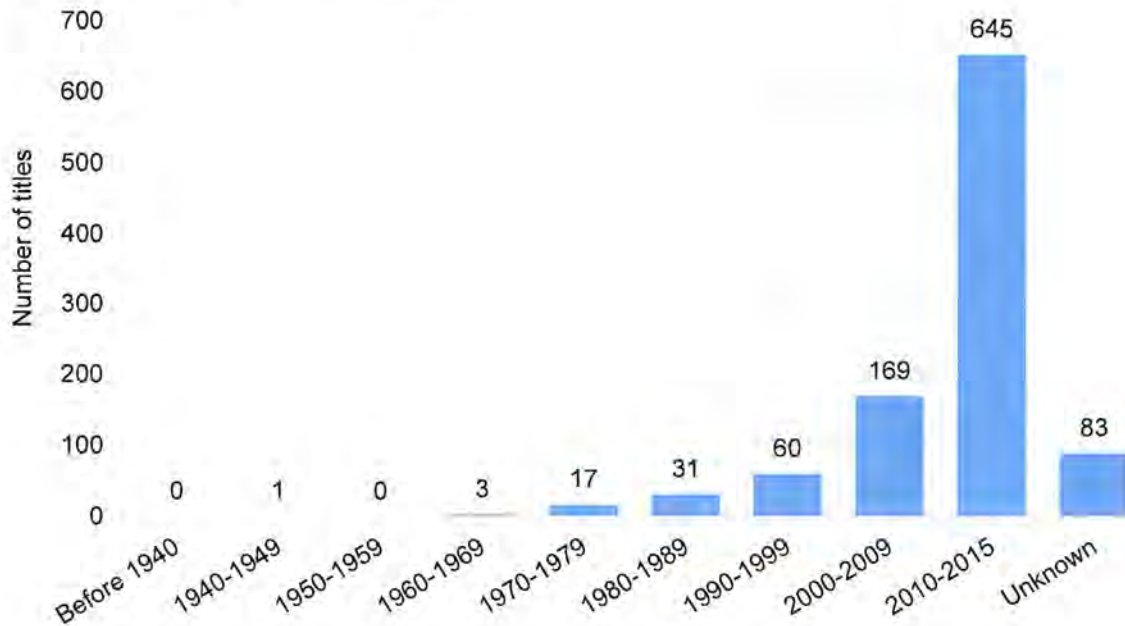
International Standard Book Number

Out of the 1,009 titles surveyed, 474 (47 percent) had an International Standard Book Number (ISBN). The KNLS can now issue ISBNs for publishers in Kenya. ISBNs are believed to help protect against piracy, which is an issue in a large book market such as Kenya, especially for books approved by the MoEST for use in schools.

Price

Out of the 661 hard-copy titles surveyed in Kenya, the data collectors recorded 168 (25 percent) with an "unknown" price and 12 (two percent) as free (**Table C-3**). The data collectors recorded reference materials as the most expensive, with an average price of $7.94 (U.S. dollars [USD]), compared to narrative supplementary materials, with an average price of $1.65. Student textbooks and workbooks were similarly priced at approximately $2.75 per book.

For the 520 titles available in soft copy, or in both soft and hard copies, the retail price was reported for only 121 titles (23 percent) and was $1.56 (USD). Of the titles available in soft copy, 260 (50 percent) were found online, and 238 (46 percent) were available for free download.

Table C-4.   Price of hard-copy materials by book type.

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Textbook-Related				
Student textbook	2	131	$2.78	$0.84–$6.42
Student workbook	2	21	$2.75	$0.17–$6.38
Teacher's guide	2	38	$3.09	$1.16–$5.61
Non-textbook				
Narrative	6	239	$1.65	$0.17–$4.18
Informational	0	45	$1.74	$0.55–$19.80
Reference	0	14	$7.94	$0.55–$18.70
Poetry, etc.	0	12	$4.95	$0.17–$16.50
All titles	**12**	**505**	**$2.35**	**$0.17–$19.80**

[a] The exchange rate used was 1 Kenyan Shilling = 0.011 U.S. dollar (USD)

4.   Remarks

The robust publishing industry in Kenya allowed data collectors to gather information on more titles in this country than in any of the other surveyed countries. Well-established commercial and nonprofit producers mean that there are a lot of opportunities for materials development, and Kenyan publishers often produce materials for readers outside of their local context. Publishers can apply and obtain an ISBN through the KNLS to help combat piracy and to identify and record materials as they are developed.

The lack of an official policy for standardizing orthography can impact the development of materials. As publishers move forward with producing African language materials, they must consider that they may also need to research, develop, and confirm the standardized orthography for many of the languages. For languages without a standardized orthography in place, publishers risk having their materials later become obsolete or rejected.

A lot of investment from bilateral partners has come in the form of producing materials in African languages. Through these partnerships, additional materials in more languages could become available to more students and teachers. However, the strong presence and prestige of English in schools limits the actual implementation of a true bilingual education system that supports the use of African languages.

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Annex D. Summary of the Early Grade Reading Materials Survey in Malawi

Geography and Demographics

Size:	118,484 square kilometers (km²)
Population:	18 million (2015)
Capital:	Lilongwe
Urban:	16% (2015)
Administrative Divisions:	28 districts
Religion:	83% Christian 13% Muslim 3% None 2% Other

Source: Central Intelligence Agency (2015).

Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 6–11 years):[a]	2.8 million
Adult (aged >15 years)	66%	73%	59%	2013 Primary School GER:[a]	141%, up from 137% in 1999
Youth (aged 15–24 years)	75%	75%	75%	2013 Pre-primary School GER:	Data unavailable
Sample EGRA Results[b]	Language:	Chichewa		Oral Reading Fluency:	Mean: 15.4 correct words per minute
	When:	2012			Standard deviation: 1.2
	Where:	Nationwide			39% zero scores
	Who:	1,854 P4 students		Reading Comprehension:	0% reading with ≥80% comprehension

Notes: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P4 = Primary Grade 4. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: Pouezevara et al. (2013).

Language

Number of Living Languages:[a] 16		
Major Languages[b]	Estimated Population[c]	Government Recognized Status
English	16,000 (L1) (1993) 540,000 (L2) (2003)	de facto "official" language
Chichewa	6,500,000 (L1) (2009)	de facto LWC
Tumbuka	1,180,000 (L1) (2009)	None
Yao	1,760,000 (L1) (2009)	None
Lomwe (Malawi)	2,290,000 (L1) (2009)	None
Nyakyusa–Ngonde	149,000 (L1) (2009)	None
Sena (Malawi)	468,000 (L1) (2009)	None
Kokola	200,000 (L1) (2000)	None
Tonga	271,000 (L1) (2009)	None

Note: L1 = first language; L2 = second language; LWC = language of wider communication.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[c] Source: Lewis et al. (2015). The date of the speaker population estimate is given in parenthesis when available.

Malawi Findings in Brief:

In 2013, Malawi changed the language in education policy to require English as the language of instruction at all levels; however, in practice, Chichewa, one of the official languages and the dominant language of wider communication, continues to be used heavily in Primary Grades 1 through 4. The study surveyed 354 titles. The data set is characterized by the overwhelming dominance of Chichewa language materials (308 titles [87 percent]), leaving the other major languages with only a handful of titles each, if any at all. The publishers of the surveyed materials were approximately split between domestic government entities and faith-based organizations, each producing approximately one-third of the overall inventory, whereas commercial publishers were much less involved. Of the surveyed titles, a large majority (315 [89 percent]) were copyrighted, with 32 titles (nine percent) granting permissions for reuse under specific conditions, including 23 titles (six percent) by the Malawi Institute of Education that were licensed under Creative Commons. Although supplementary materials outnumbered textbook-related materials in most of the countries in the survey, the ratio in Malawi was greater than four supplementary materials for every textbook, and narrative texts alone constituted more than half of the inventory. However, similar to other countries in the survey, the Malawian materials were characterized by a lack of pre-primary materials and a high percentage of supplementary texts with greater than 75 words per page. In general, a low incidence of potentially sensitive content and gender and ethnic/religious imbalance was observed. However, persons with disabilities were not frequently featured in the illustrations of the materials surveyed.

1. Language in Education Policy in Malawi

The language in education policy in Malawi has vacillated between multilingualism and monolingualism. During the colonial period, particularly in the lower primary grades, Chichewa was used as the primary language of instruction (LOI) in the central and southern regions, and Tumbuka was employed in the northern region. After independence, Chichewa was elevated to the status of "national" language and prescribed as the only medium of instruction in the lower Primary Grades1 1–4 (Chilora, 2000). In 1996, following the move to a multiparty political system in 1994, the Malawi Government changed the policy to allow for the use of the local "mother tongues" as the LOIs in Primary Grades 1–4, with a transition to English in Primary Grade 5 (Secretary for Education's letter, reference number IN/2/14, March 28 1996 as cited in Issa and Yamada, 2013).

In 2014, the Minister of Education announced that English was to become the LOI beginning in Primary Grade 1, in accordance with the new Education Act passed in 2013 (Masina, 2014). However, the National Reading Strategy (2014–2019) of the Ministry of Education, Science, and Technology (MoEST) still promotes reading and language development in both English and Chichewa for children enrolled in early primary grades (Malawi MoEST, 2014). Chichewa continues to serve as the main LOI for Primary Grades 1–4 (Issa and Yamada, 2013).

2. Data Collection

The data collectors surveyed a total of 354 titles from 33 stakeholders, visiting each of the country's publishing centers, including Mzuzu in the North, Lilongwe in the Central region, and Blantyre, Zomba, and Balaka in the South. The data collectors obtained 200 of those titles (56 percent) directly from the publishers.

3. Findings

A. Availability of Materials for Early Grade Reading in Malawian Languages

Materials by Language

The data collectors surveyed 354 titles written in seven different languages: six African and one European (English), as shown in **Table D-1**. Chichewa was by far the most common language encountered, featured in 309 titles (87 percent).

Each of the major languages in Malawi was represented in the survey except for Nyakyusa-Ngonde and Tonga, which have estimated populations of 300,000 and 170,000, respectively (Lewis et al., 2015). Despite the language in education policy that was in place from 1996 through 2013, which stated that "mother tongues" should be the LOIs in the lower primary grades, all of the other Malawian languages besides Chichewa were vastly underrepresented in the materials compared to Chichewa.

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1 In Malawi, the primary grades are referred to as "standards."

One title was written in Chichewa using Arabic script; all of the other titles used a Latin-based script. The surveyed materials included eight bilingual titles: seven of them were Chichewa-English, and one was Yao-English. Because the focus of the study was on African languages, English titles were not targeted unless they appeared bilingually beside an African language.

Table D-1.   Languages in Which Materials Were Found in Malawi

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Malawi[c]	Titles per Language	Percentage of Titles Surveyed[d]
1	Chichewa	nya	6,500,000 (2009)	309	87.3%
2	Tumbuka	tum	1,180,000 (2009)	18	5.1%
3	Yao	yao	1,760,000 (2009)	14	4.0%
4	Lomwe (Malawi)	lon	2,290,000 (2009)	10	2.8%
5	English	eng	16,000 (L1) (1993) 540,000 (L2) (2003)	8	2.3%
6	Sena (Malawi)	swk	468,000 (2009)	2	0.6%
7	Kokola	kzn	200,000 (2000)	1	0.3%

Note: ISO = International Organization for Standardization; L1=first language; L2= second language.
[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate ISO codes are provided in parentheses.
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al. (2015). Dates for the speaker population estimates vary by language.
[d] Due to bilingual titles, the total will surpass 100%.

Types of Materials

Table D-2 details the types of materials found by language. Key observations include the following:

- 66 titles (19 percent) were textbooks or related materials, and 288 (81 percent) were non-textbooks.
- Student literacy textbooks were the most common subtype of textbook-related materials (52 titles [79 percent]); these textbooks outnumbered teacher's guides (12 titles [18 percent]) by more than a 4:1 ratio. The data collectors found only two student literacy workbooks (3 percent).
- Narrative texts were the most common subtype of the supplementary materials (183 [64 percent]); informational texts were also common (101 [35 percent]).

Table D-2. Number of Different Types of Materials Found, by Language

Languages[a]	Textbook Related					Non-textbook/Supplementary							
	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Chichewa	43	2	7	52	14.7%	151	96	2	1	250	70.6%	302	85.3%
Chichewa/ English	2	—	4	6	1.7%	1	—	—	—	1	0.3%	7	2.0%
Kokola	1	—	—	1	0.3%	—	—	—	—	0	0.0%	1	0.3%
Lomwe	—	—	—	0	0.0%	10	—	—	—	10	2.8%	10	2.8%
Sena	—	—	—	0	0.0%	2	—	—	—	2	0.6%	2	0.6%
Tumbuka	3	—	—	3	0.8%	10	5	—	—	15	4.2%	18	5.1%
Yao	3	—	1	4	1.1%	9	—	—	—	9	2.5%	13	3.7%
Yao/English	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Total	**52**	**2**	**12**	**66**	**18.6%**	**183**	**101**	**3**	**1**	**288**	**81.4%**	**354**	**100.0%**

Note: Percentages may not sum exactly to 100% because of rounding.
[a] Languages are presented in alphabetical order. Most languages go by several different names; several languages have the same name. In case of confusion, refer to the language International Organization for Standardization (ISO) code and the *Ethnologue* at www.ethnologue.com.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The data collectors analyzed the 66 textbook-related materials with regard to their pedagogical components. As shown in **Figure D-1**, the most common component was reading passages, with 52 titles (79 percent). The least common component was grammar instruction and/or exercises, with five titles [8 percent]). Fewer than half of the materials (27 [41 percent]) used what could be construed as a phonics approach to reading instruction.[2]

Figure D-1. Pedagogical components in textbook-related materials
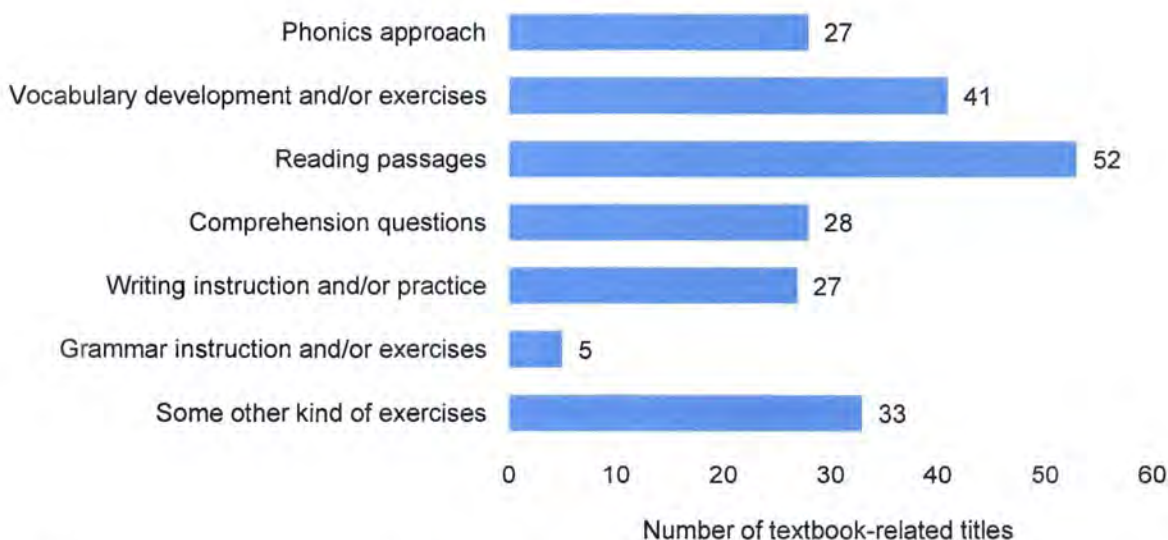
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Out of the 66 textbook-related titles examined, 56 (85 percent) were explicitly designated for a specific grade level in the formal education sector, with the highest number for Primary Grade 1 (**Figure D-2**). The data collectors found only one title (two percent) labeled for a pre-primary level. Although the survey targeted kindergarten through Grade 3 materials, the data collectors included materials that were designated for higher primary grades if they judged them to be potentially useful in lower grades. In this case, the data collectors included four titles (six percent) that were designated for Primary Grade 4.

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[2] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

Figure D-2. Publisher-designated levels for textbook-related materials
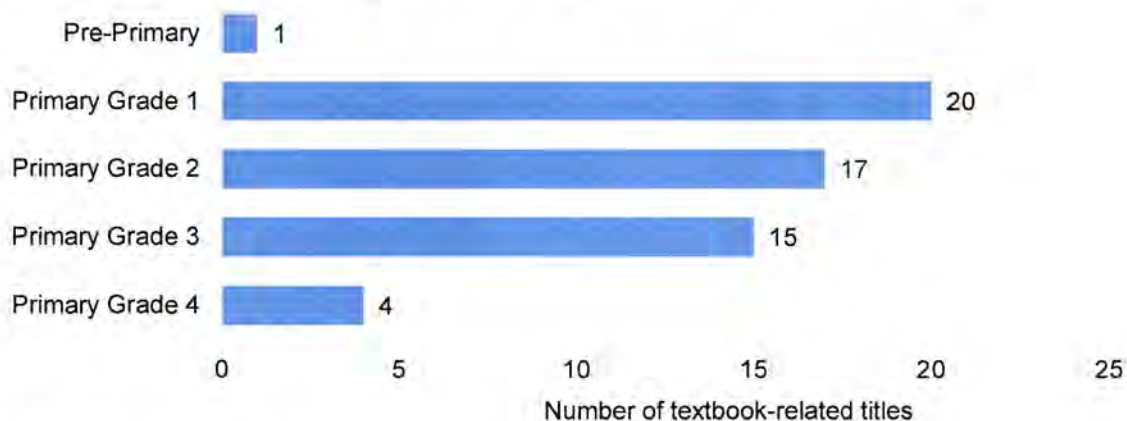
Pre-Primary | 1
Primary Grade 1 | 20
Primary Grade 2 | 17
Primary Grade 3 | 15
Primary Grade 4 | 4

Number of textbook-related titles

Note: Multiple responses were possible per title.

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. This calculation was performed for 281 narrative and informational texts.

As shown in **Figure D-3**, the majority of the supplementary titles (146 [52 percent]) contained more than 75 wpp, the most advanced of the words per page range options. Relatively few titles were found at all of the lower levels.

Figure D-3. Number of narrative and informational non-textbook titles by maximum words per page

1-10 Words per page	13	5
11-25 Words per page	25	16
26-50 Words per page	38	13
51-75 Words per page	17	8
>75 Words per page	88	58

Number of non-textbook titles

■ Narrative Informational
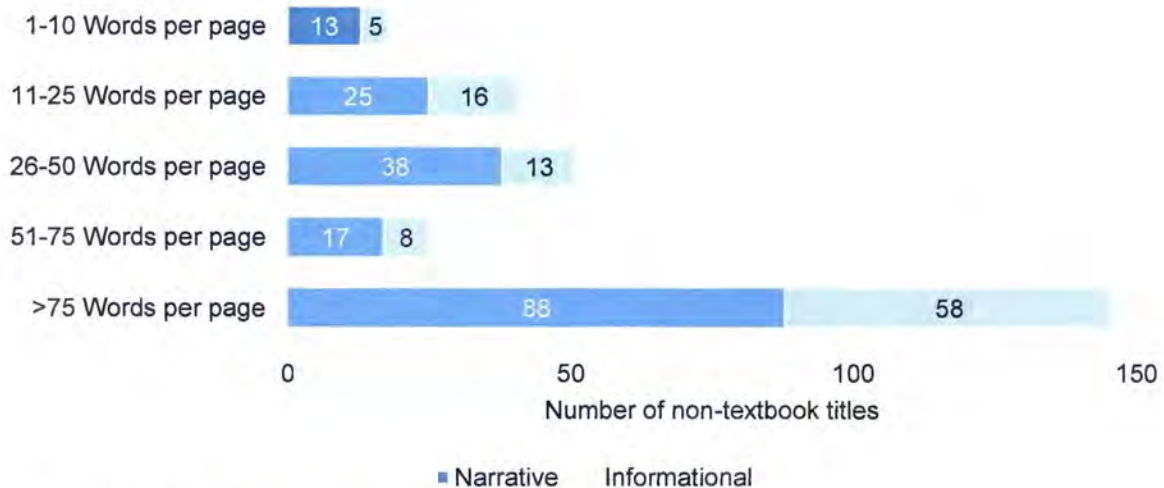
Note: This calculation was not conducted for poetry or reference titles.

Illustrations

Of the 354 materials surveyed, the vast majority of titles were illustrated; only 43 (12 percent) were not (**Figure D-4**). Illustrations in full color (164 titles [46 percent]) and in black and white and/or grayscale (147 titles [42 percent]) were used in almost equal proportions.

Figure D-4. Presence and type of illustrations

Is the book illustrated?

No, 12%

Yes, all B&W and/or grayscale, 42%

Yes, all color, 46%

Yes, some B&W and some color, <1%
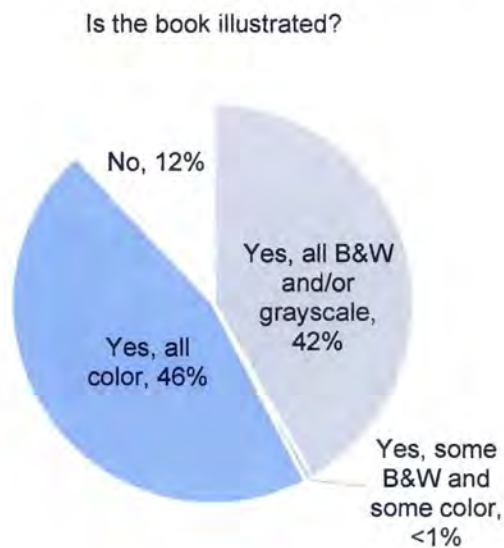
Content Themes

The data collectors examined 339 of the titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts and/or illustrations and checked off the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure D-5**.

The most common theme was environment, appearing in 186 titles (55 percent), followed closely by home life (180 [53 percent]), family (179 [53 percent]), and morals/values (179 [53 percent]). The least common topics found in the surveyed titles were energy and media (each with three titles [one percent]) and science with two titles (one percent).

Of the 339 titles examined for content, 92 (27 percent) contained explicitly religious content. Of these, 89 (97 percent) featured Christianity and eight (nine percent) Islam. Some titles contained content related to both religions.

Figure D-5. Content themes

Theme	Number of titles
Adventure	147
Agriculture	52
Alphabet	14
Animals	125
Biography	33
Business	14
Careers/Professions/Jobs/Work	46
Colors or Shapes	4
Community	134
Culture	119
Education/School	88
Energy	3
Environment	186
Family	179
Food/Nutrition	87
Friendship	154
Health/Personal Hygiene	127
History	25
Holidays/Celebrations	48
Home Life	180
How to/Skill Development	51
Human Body	39
Humor	4
Media	3
Morals/Values	179
Numeracy/Counting/Math	11
Peace/Justice/Equality/Human Rights	119
Plants	30
Religion	92
Safety	124
Science	2
Social Studies/Civic Education	45
Technology	4
Travel/Transportation	72
Weather	4

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 339 titles for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. The data collectors judged 301 titles (89 percent) as containing "very familiar" content and 32 (nine percent) as containing "semi-familiar" content. The data collectors did not find any materials that they judged to be "mostly unfamiliar" to the target audience. The data collectors were unable to evaluate six titles (two percent) regarding the familiarity of the content.

The data collectors also examined the illustrations of these 339 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, or other known cultural taboos. The data collectors did not find any potentially sensitive content for the large majority of the titles examined (316 [93 percent]). The only types of content flagged for their potentially sensitive nature were traumatic events (12 titles [four percent]), gore (eight [two percent]), and sexual content (five [one percent]) (**Figure D-6**).

Figure D-6. Potentially sensitive content in the illustrations
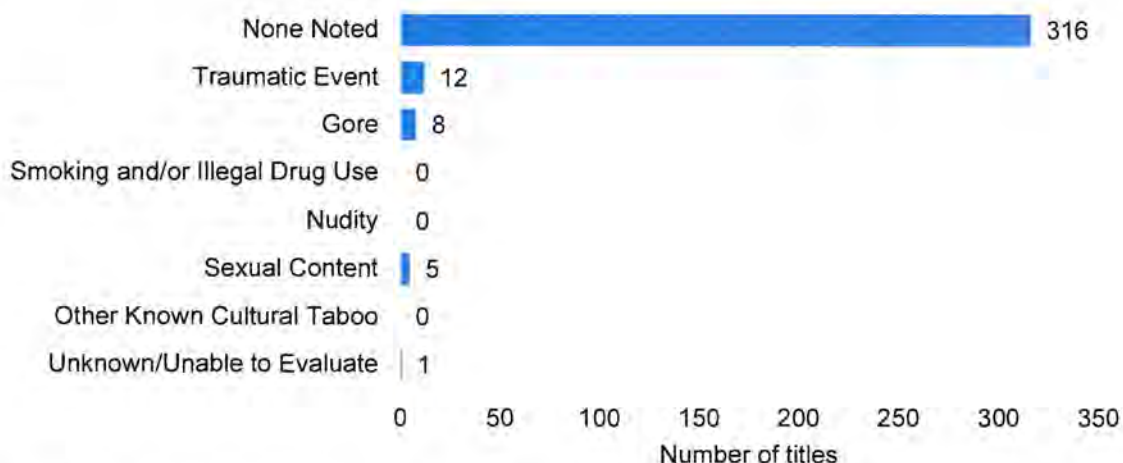
Note: Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of 73 titles regarding the frequency and equality of representation of people in the illustrations according to gender, ethnic or religious group identity, and disability. The data collectors did not evaluate all titles for these questions; exclusions included teacher's guides, reference materials, and titles that were not illustrated with humans or anthropomorphic animals.

Gender

The data collectors evaluated the illustrations in 73 titles for the frequency of representation of each gender. In 10 titles, gender was not apparent. Of the remaining 63 titles, the data collectors determined that 49 titles (78 percent) portrayed an overall balance of both genders, six (10 percent) featured primarily males, and eight (13 percent) featured primarily females (**Figure D-7**).

The data collectors evaluated 50 titles for which there was sufficient basis to compare whether the genders were depicted "with equal skills, knowledge, accomplishments, or roles." Of those titles, they judged that only one (two percent) portrayed the genders unequally.

Figure D-7. Frequency of gender representation in the illustrations
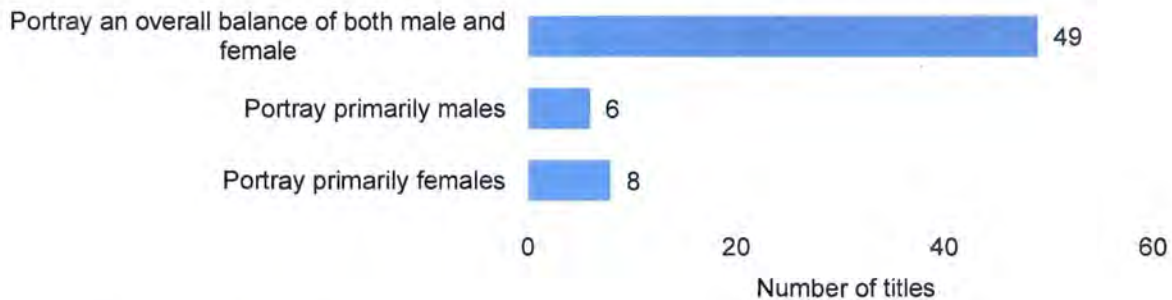
Ethnic and Religious Group Identity

In addition, the data collectors examined 73 illustrated titles for their portrayals of ethnic and religious groups (**Figure D-8**). Most (62 [85 percent]), of the illustrated titles did not portray identifiable ethnic or religious groups. Of the remaining titles, five (seven percent) were perceived to portray one ethnic or religious group to the exclusion of other groups present in the local population. All five of these titles contained religious content that focused on either Christianity or Islam to the exclusion of other religions.

For the overwhelming majority of titles, the data collectors judged that there was an insufficient basis for the comparison of the portrayal, if any, of ethnic or religious groups in the illustrations. The data collectors were able to evaluate only seven titles (10 percent) for the question of whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles." Of those titles, the data collectors judged that four titles (57 percent) portrayed different groups in this manner; three (43 percent) did not.

Figure D-8. Frequency of ethnic/religious group representation in the illustrations

No ethnic or religious group identity is evident in the illustrations. — 62

The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population. — 3

The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group. — 3

The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population. — 5

0   20   40   60   80

Number of titles

Disability

The data collectors also examined the illustrations in these 73 titles for the frequency of representation of people with disabilities. Overwhelmingly, the materials surveyed lacked any illustrations of people with disabilities (**Figure D-9**); this group appeared in just five (seven percent) of the 73 titles.

For the five titles in which people with disabilities were portrayed at all, the data collectors judged three of the materials (60 percent) as portraying people with disabilities "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

Figure D-9. Frequency of the representation of people with disabilities in the illustrations
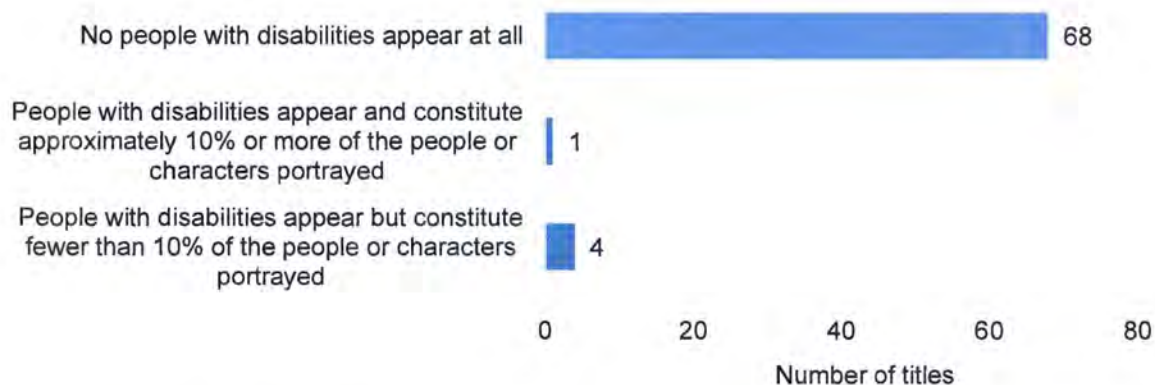
C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

Of the 354 titles surveyed, 290 (82 percent) were copyrighted. Fewer than half of the titles contained an explicit statement concerning restrictions or permissions for reuse. However, 88 titles (25 percent) included a statement equivalent to "All Rights Reserved," 25 titles (seven percent) were licensed under Creative Commons, and six titles (two percent) granted permissions for noncommercial use. The titles licensed under Creative Commons used the CC-BY type of license, which grants the most extensive permissions of all the Creative Commons options, and 23 of the openly licensed materials (six percent) were published by the Malawi Institute of Education.

Medium

The data collectors surveyed 348 of the titles in hard copy; six titles were inventoried in soft copy; and 10 titles were available in both media.

D. Landscape of the Production of Children's Reading Materials in African Languages in Malawi

Publisher Types

Of the 354 materials surveyed, the publishing types were approximately split between domestic government entities (119 [34 percent]) and faith-based organizations (137 [39 percent]), as shown in **Figure D-10**. However, of the 119 titles produced fully or in part by the government, 107 (90 percent) were part of a bilateral or multilateral cooperation agreement with an international donor.

In all, bilateral or multilateral donors helped to publish 121 (34 percent) of the surveyed titles. These donors included the U.S. Agency for International Development (USAID, 88 [25 percent]), the German Society for International Cooperation (20 [six percent]), the Canadian International Development Agency (15 [4 percent]), the United Kingdom's Department for

International Development (15 [4 percent]), and the United Nations Children's Fund (six [two percent]).

Figure D-10. Number of titles by publisher type
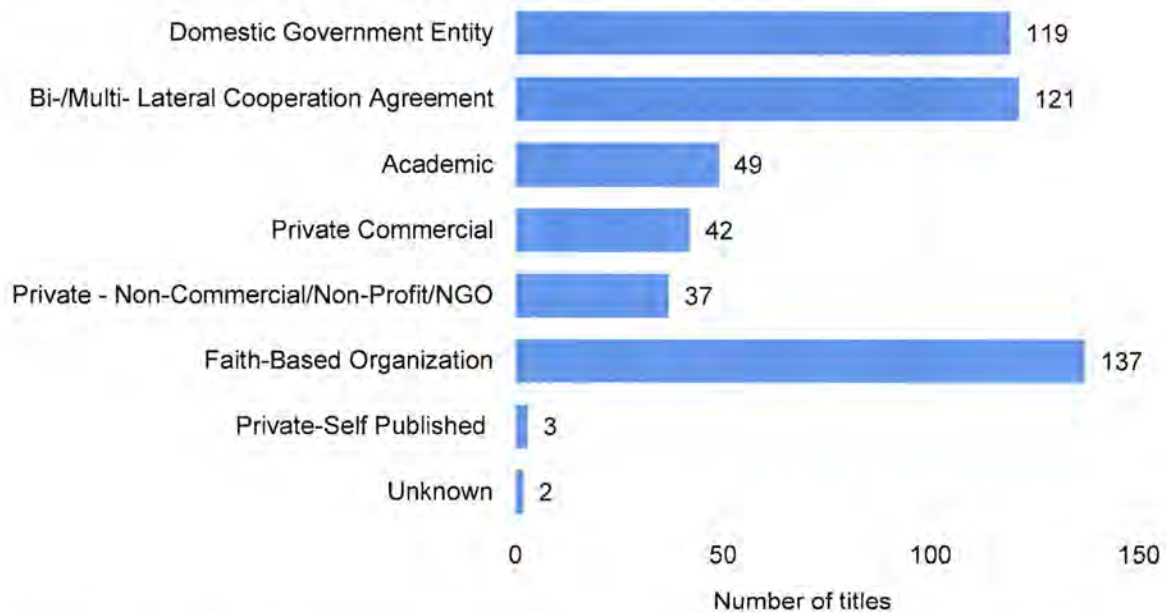
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

Compared to other countries in the survey, Malawi's inventory was slightly older on average, with 143 titles (40 percent) having been published in the past five years, and 218 (62 percent) since 2000 (**Figure D-11**). Although 35 titles (10 percent) were produced before 1990, the data collectors found 21 (60 percent) of these 35 titles in libraries and the Zomba National Archives. These older materials may not be readily available outside of libraries and archives.

Figure D-11. Year of publication
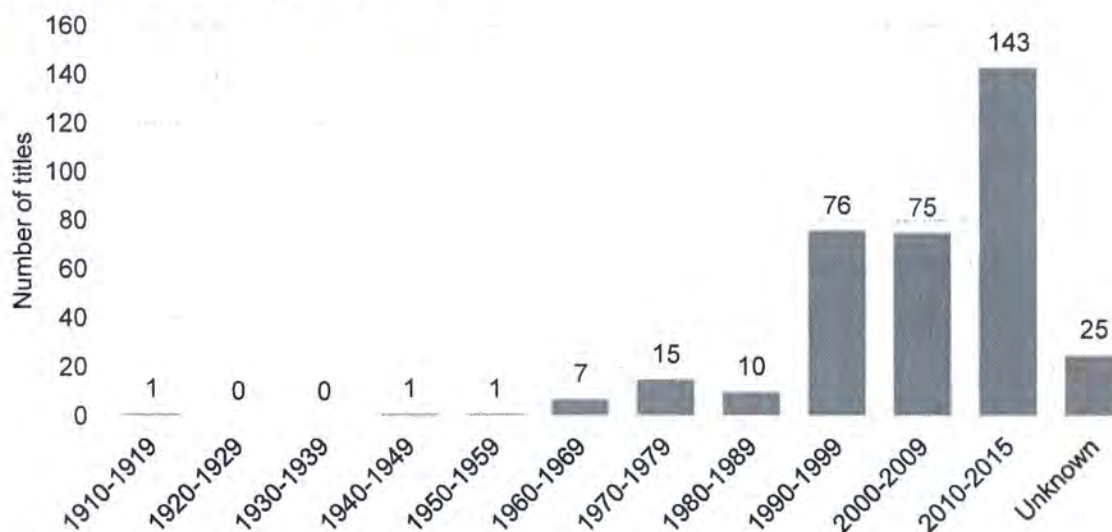
International Standard Book Number

Of the 354 titles surveyed, 232 titles (66 percent) contained an International Standard Book Number (ISBN). This relatively high rate of ISBN use is largely due to 121 of the titles (34 percent) that were produced under bilateral or multilateral cooperation agreements and 29 titles (8 percent) that were published by Cambridge University Press.

Price

The data collectors were unable to record a price for the vast majority of the titles examined for this survey. Of the 354 titles surveyed, only 31 (nine percent) had a marked price, which ranged from $0.22–$4.36 (U.S. dollars [USD]).[3] For the 11 student textbooks with a known price, the average cost was $2.40 (USD); for the 18 narrative titles, it was $1.24 (USD). However, because price data are missing for so many titles, these averages cannot be guaranteed as being representative.

4. Remarks

The availability of reading materials is a challenge in the Malawian context. A 2013 study commissioned by USAID found that only nine percent of Primary Grade 2 students had a school textbook or supplementary reader (Pouezevara et al., 2013). This current survey suggests that there may be materials locally available that can be further examined for quality and appropriateness with a goal of broadening their accessibility. However, there may need to be an increase in the production of materials for the earliest reading levels because most of the non-textbook materials surveyed were concentrated in the category of 75 words or more per page.

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[3] Exchange rate is 1 Malawian Kwacha = 0.0022 USD.

Additional research could be conducted to more clearly define the gaps in the inventory of reading materials in Malawian languages for young students.

The findings of the survey also suggest that there is a rich involvement of faith-based organizations, the donor industry, and the government in the production of books in Malawian languages for the early primary grades. There is less involvement of private commercial companies. Malawi may present an interesting opportunity to encourage low-cost or free materials online. Because the commercial interests of the groups involved in bilateral and multilateral cooperation agreements and faith-based organizations differ from private publishers, they may be more willing to make their materials available for free. Additional research and discussions with the organizations that have produced the existing materials would help to clarify the feasibility of this opportunity.

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Annex E. Summary of the Early Grade Reading Materials Survey in Mali

Geography and Demographics

Size:	1,240,192 square kilometers (km²)
Population:	17 million (2015)
Capital:	Bamako
Urban:	40% (2015)
Administrative Divisions:	8 regions and 1 district
Religion:	95% Muslim 2% Christian 2% Animist 1% None or unspecified

Source: Central Intelligence Agency (2015).
Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 7–12 years):[a]	2.5 million
Adult (aged >15 years)	39%	48%	29%	2013 Primary School GER:	84%, up from 60% in 1999
Youth (aged 15–24 years)	54%	61%	46%	2013 Pre-primary School GER:	4%, up from 2% in 1999

Sample EGRA Results [b]	Languages:	Bambara and French[c]		Oral Reading Fluency:	Mean: 4.1 cwpm (Bambara)/3.2 cwpm (French) 66% zero scores (Bambara)/70% zero scores (French)
	When:	2015			
	Where:	Sikasso, Ségou, Koulikoro			
	Who:	1,220 P2 students (Bambara); 1,209 P2 students (French);		Reading Comprehension:	93% zero scores (Bambara)/95% zero scores (French)

Note: cwpm = correct words per minute; EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P2 = Primary Grade 2. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: RTI International (2015).
[c] Bambara scores are recorded from curriculum schools; French scores are from classical schools.

Language

Number of Living Languages:[a] 66

Major Languages[b]	Estimated Population[c]	Government Recognized Status [d]
French	9,000 (L1) (1993) 2,580,000 (L2) (2013)	"Official language"
Bambara (Bamanankan)	4,000,000 (L1) (2012) 10,000,000 (L2) (2012)	"National language"
Bomu	102,000 (L1) (1976)	"National language"
Bozo (Tieyaxo)	118,000 (L1) (1987)	"National language"
Dogon (Toro So)	50,000 (L1) (1998)	"National language"
Fulfulde (Maasina)	1,040,000 (L1) (2014)	"National language"
Hasanya (Maure)	123,000 (L1) (2014)	"National language"
Sénoufo (Mamara)	738,000 (L1) (2000)	"National language"
Maninkankan (Kita)	434,000 (L1) (2014)	"National language"
Soninke (Sarakolé)	1,280,000 million (L1) (2009)	"National language"
Songhay (Koyraboro Senni)	430,000 (L1) (2007)	"National language"
Sénoufo (Syenara)	155,000 (L1) (2010)	"National language"
Tamasheq	378,000 (L1) (2014)	"National language"
Xaasongaxango (Khassonké)	700,000 (L1) (2012)	"National language"

Note: L1 = first language; L2 = second language; LWC = language of wider communication.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate International Organization for Standardization (ISO) 639-3 codes are provided in parentheses.
[c] Source: Lewis et al. (2015). The date of the speaker population estimate is given in parenthesis when available.
[d] Law No. 96–049 of August 23, 1996 accords the status of national languages to these languages.

Mali Findings in Brief:

The education system in Mali supports a bilingual model in which students begin primary school in one of 13 national languages, and then transition to bilingual instruction in both the national language and French in mid-primary grades. In spite of this policy, French remains the language of instruction in many primary schools. The study surveyed 298 titles in Mali. Approximately half the materials surveyed were in Bambara, the most commonly spoken language, but to the neglect of the other national languages also authorized for bilingual education. Slightly more than half of the titles (158 [53 percent]) were copyrighted, and only three materials (one percent) explicitly granted any permissions for reuse under specific conditions. Supplementary materials were more numerous than textbook-related materials by almost a 2:1 ratio. Narrative texts and student textbooks were by far the most common subtypes for each category, and student workbooks and teacher's guides were very rare. The supplementary reading materials available appear to be written at a relatively high reading level. Although the materials were judged to be culturally familiar and free of sensitive content on the whole, male characters were often featured disproportionately in the illustrations. No one publisher type dominated the production of materials, but the largest number came from commercial publishers.

1. Language in Education Policy in Mali

To break from the former colonial education system, the Republic of Mali implemented its first education reform in 1962. The main objectives of the reform were to decolonize the mentalities of people and to train the needed human resources for national development. These objectives implied a return to the local sociocultural realities, including the use of the Malian languages in the education system, both formal and informal, giving Mali a long history in the use of African languages in education.

The history of the role of Malian national languages in education can be divided into three phases: (1) 1979–1987, which was characterized by a limited use of four national languages as languages of instruction (LOIs) alongside French in Primary Grades 1–4 in 108 schools; (2) 1987–2002, which was characterized by the use of 11 national languages as LOI in Primary Grades 1–6 under the "convergent pedagogy" in 2,050 schools; and (3) 2002 to date, which is characterized by the use of bilingual instruction in a competency-based curriculum in 2,550 schools as of 2006 (Traore, 2009). Under the current approach, students begin their education with one of 11[1] national languages as the medium of instruction; then, starting at Primary Grade 2 or 3, the students transition to using both French and the national language as LOI through Primary Grade 6 (AFD and MEALN, 2010; UNESCO, 2010).[2]

In practice, schools fall into two groups: those following the competency-based curriculum taught in one of the national languages, and those following a "classic" curriculum taught in French. The classic curriculum is favored by private schools in the larger towns. In government schools, it is unclear what percentage uses French as the language of instruction (LOI) versus the national languages. For example, in a 2010 study undertaken by the Agence Française de Développement (AFD, the French Development Agency) and the Ministère de l'Éducation, de l'Alphabétisation et des Langues Nationa (MEALN, Ministry of Education, Literacy, and National Languages), 2,466 schools reported giving instruction in one of 10 national languages. The same year, another study based on observations of 77 Primary Grade 2 classrooms across 16 districts found that 84 percent of the teachers used the national language designated as the LOI for that region as the only LOI in class, and 13 percent used both the national language and French (Varly, 2010). However, a 2012 study of 949 schools in the Mopti region found that only 24 percent were using a national language as the LOI (Rhodes, 2012).

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[1] Although Mali has 13 national languages, most documents refer to implementation of bilingual instruction in only 11 of them. According to Bocoum (2011), "The absence of Hassaniya and Malinke is justified through the shortage for specialists in these languages" (p. 4).

[2] The UNESCO (2010) report states that a national language is to be the LOI in Primary Grades 1 and 2 with French taught as a second language, then French and the national language each serve as the LOI approximately 50% of the time in Primary Grades 3–6. The AFD and MEALN (2010) study reported "confusion" on the ground regarding the precise timing and allocation of time between the national language and French as LOI. The report recommended clarifying this and suggested the following: in Primary Grade 1: a national language as the LOI, and oral French as a subject; in Primary Grade 2: the introduction of written French in addition to oral, and French can begin to serve part-time as the LOI in some subjects, alternating with the national language; in Primary Grades 3–4: French favored for mathematics and science (French first, supported by national language), otherwise, approximately 50/50%; in Primary Grades 5–6: French favored as the LOI for language arts (75%) and mathematics and science (100%), both languages 50/50% for other subjects.

The implementation of bilingual instruction remains a challenge for the Ministry of Basic Education for several reasons: stakeholders have strong opinions both for and against it, many parents regard schooling in national languages as a social demotion for their children, the LOI may differ from the language spoken at home by students, teachers may not speak or read and write the LOI fluently, and some of the national languages lack adequate materials (AFD and MEALN, 2010; Maïga et al., 2012).

2. Data Collection

The data collectors surveyed 298 titles inside and outside of Bamako through their contacts with linguists, the Ministry of Basic Education, the Organization Maliene des Editeurs (OMEL, Malian Association of Book Publishers), nonprofit organizations, and some schools, libraries, and reading centers. The data collectors accessed slightly more than half of the titles (152 [51 percent]) directly from publishers and 59 (20 percent) from government officials.

3. Findings

A. Availability of Materials for Early Grade Reading in Malian Languages

Materials by Language

The data collectors surveyed a total of 298 titles in 19 languages: 17 African languages, and two languages of European origin (French and English), as shown in **Table E-1**. The data collectors found 155 titles (52 percent) in Bambara,[3] followed by Fulfulde, French, and Sénoufo (Mamara dialect). These languages all have official "national language" status and are among the most commonly spoken in Mali. As for the other national languages, the data collectors found between 11 and 15 titles each for Songhay (Koyraboro Senni dialect), Soninke, and Sénoufo (Syenara dialect), but encountered fewer than 10 each for Bomu, Bozo (Tieyaxo), Dogon (Toro So dialect), Tamasheq, and Xaasongaxango (also called Khassonké), and none for Maninkankan (Kita dialect) or Hasanya (also called Maure).

Although French is the official language in Mali, the focus of the study was on African language materials. Of the 32 French titles surveyed, 31 (97 percent) were bilingual with an African language. The remaining title was a French/English shell book (i.e., a book intended and authorized for adaptation and/or translation into other languages).

Out of the 298 titles surveyed, 264 (89 percent) of titles were monolingual, 33 (11 percent) were bilingual, and one (less than one percent) was multilingual. All of titles surveyed were written in Latin-based scripts.

Table E-1. Languages in Which Materials Were Found in Mali

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Mali[c]	Titles per Language	Percentage of Titles Surveyed[d]
1	Bambara	bam	4,000,000	155	52%

[3] Listed as Bamanankan in Lewis et al. (2015).

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Mali[c]	Titles per Language	Percentage of Titles Surveyed[d]
2	Fulfulde (Maasina)	ffm	1,040,000	46	15%
3	French	fra	9,000 (L1) 2,580,000 (L2)	32	11%
4	Sénoufo (Mamara)	myk	738,000	27	9%
5	Songhay (Koyraboro Senni)	ses	430,000	14	5%
6	Soninke	snk	1,280,000	14	5%
7	Sénoufo (Syenara)	shz	155,000	11	4%
8	Sénoufo (Supyire)	spp	350,000	7	2%
9	Tamasheq	taq	378,000	5	2%
10	Dogon (Tene Kan)	dtk	127,000	4	1%
11	Dogon (Toro So)	dts	50,000	4	1%
12	Songhay (Koyra Chiini)	khq	200,000	3	1%
13	Bomu	bmq	102,000	3	1%
14	Dogon (Tomo Kan)	dtm	133,000	3	1%
15	Bozo (Tieyaxo)	boz	118,000	1	0.3%
16	Maninkakan (Eastern)	emk	390,000	1	0.3%
17	Pulaar	fuc	175,000	1	0.3%
18	Xaasongaxango	kao	700,000	1	0.3%
19	English	eng	Not applicable	1	0.3%

Note: ISO = International Organization for Standardization; L1 = first language; L2= second language.
[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate ISO codes are provided in parentheses.
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al. (2015). Dates for the speaker population estimates vary by language.
[d] Due to bilingual titles, the total will surpass 100%.

Types of Materials

Table E-2 details the types of materials found by language. Key observations include the following:

- Of the 298 titles surveyed, 92 (31 percent) were textbooks or related materials, and 206 (69 percent) were supplementary, non-textbook titles.
- The majority of textbook-related titles (86 [93 percent]) were student textbooks or primers. Most supplementary titles (154 [75 percent]) were narrative.
- Only four teacher's guides and two student workbooks were found.

Table E-2. Number of Different Types of Materials Identified, by Language

Language(s)[a]	Textbook-Related					Non-textbook Supplementary						Total	Percentage of Total Titles
	Student Literacy Textbook	Student Literacy Workbook	Reading Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles		
Bambara	39	1	3	43	14.4%	86	8	4	5	103	34.6%	146	49.0%
Bambara/French	1	—	—	1	0.3%	3	—	2	1	6	2.0%	7	2.3%
Bomu	2	—	—	2	0.7%	—	—	—	—	0	0.0%	2	0.7%
Bomu/French	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Bozo (Tieyaxo)	—	—	—	0	0.0%	—	—	—	—	0	0.0%	0	0.0%
Bozo/French	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Dogon (Tene Kan)	1	—	—	1	0.3%	3	—	—	—	3	1.0%	4	1.3%
Dogon (Tomo Kan)	3	—	—	3	1.0%	—	—	—	—	0	0.0%	3	1.0%
Dogon (Toro So)	2	—	—	2	0.7%	—	—	—	—	0	0.0%	2	0.7%
Dogon/French	—	—	—	0	0.0%	—	—	2	—	2	0.7%	2	0.7%
Fulfulde (Maasina)	11	—	—	11	3.7%	26	—	1	5	33[b]	10.7%	44	14.4%
Fulfulde/French	—	—	—	0	0.0%	1	—	1	—	2	0.7%	2	0.7%
Pulaar	—	—	—	0	0.0%	—	1	—		1	0.3%	1	0.3%
Sénoufo (Mamara)	7	—	—	7	2.3%	12	2	—	—	16[c]	4.7%	23	7.0%
Sénoufo (Mamara)/French	2	—	—	2	0.7%	—	—	1	—	1	0.3%	3	1.0%
Sénoufo (Mamara)/French/Bambara/English	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Sénoufo (Supyire)	—	1	—	1	0.3%	5	—	—	—	5	1.7%	6	2.0%
Sénoufo (Supyire)/French	—	—	—	0	0.0%	1	—	—	—	1	0.3%	1	0.3%
Sénoufo (Syenara)	4	—	—	4	1.3%	3	2	—	—	5	1.7%	9	3.0%
Sénoufo (Syenara)/French	1	—	—	1	0.3%	—	—	1	—	1	0.3%	2	0.7%
Songhay (Koyra Chiini)	—	—	—	0	0.0%	1	—	—	—	1	0.3%	1	0.3%
Songhay (Koyra Chiini)/ French	—	—	—	0	0.0%	—	—	2	—	2	0.7%	2	0.7%
Songhay (Koyraboro Senni)	4	—	—	4	1.3%	7	—	—	—	7	2.3%	11	3.6%
Songhay (Koyraboro Senni)/ French	1	—	—	1	0.3%	—	—	2	—	2	0.7%	3	1.0%
Soninke	6	—	1	7	2.3%	3	—	—	1	4	1.3%	11	3.6%
Soninke/French	—	—	—	0	0.0%	—	—	2	1	3	1.0%	3	1.0%

Language													
Tamasheq	2	—	—	2	0.7%	1	—	—	—	1	0.3%	3	1.0%
Tamasheq/French	—	—	—	0	0.0%	1	—	1	—	2	0.7%	2	0.7%
Xaasongaxango	—	—	—	0	0.0%	—	—	—	—	0	0.0%	0	0.0%
Xaasongaxango/French	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
French/English	—	—	—	—	0.0%	1	—	—	—	1	0.3%	1	0.3%
Total	**86**	**2**	**4**	**92**	**30.9%**	**154**	**13**	**23**	**13**	**206**	**69.1%**	**298**	**100.0%**

Note: Percentages may not sum exactly to 100% because of rounding.

[a] Languages are presented in alphabetical order. Most languages go by several different names; several languages have the same name. In case of confusion, refer to the language ISO code and the *Ethnologue* at www.ethnologue.com. Language/dialect distinctions that have been assigned separate International Organization for Standardization (ISO) codes are provided in parentheses.

[b] One supplementary title in Fulfulde (Maasina) was marked as an unknown type.

[c] Two supplementary titles in Sénoufo (Mamara) were marked as an unknown type.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The data collectors analyzed 92 textbook-related materials regarding their pedagogical components (**Figure E-1**). The most common components in textbook-related titles were reading passages (73 [79 percent]) and phonics instruction[4] (48 [52 percent]). Fewer than half as many titles (36 [39 percent]) contained comprehension questions to accompany the reading passages.

Figure E-1. Pedagogical components in textbook-related materials
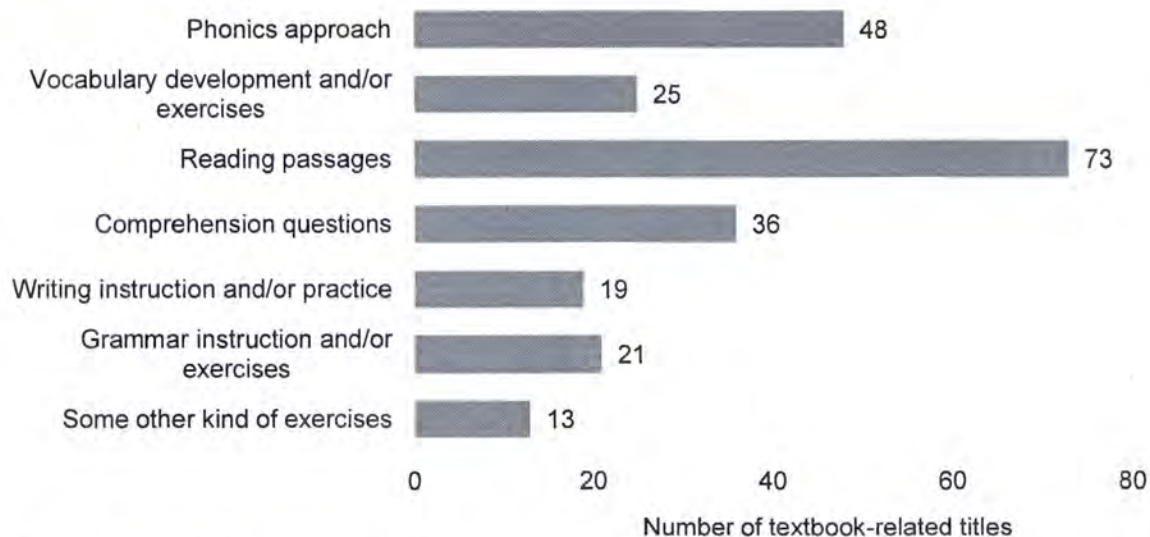
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Out of the 92 textbooks and related materials surveyed, 67 (73 percent) were explicitly labeled for a specific level, with the highest concentrations in Primary Grades 1 and 2 (**Figure E-2**). The "other" category included labels indicating informal education levels, or "beginner" versus "intermediate," or similar description, which may not necessarily align with a primary grade level. The data collectors did not find any materials for the pre-primary level.

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[4] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises on sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

Figure E-2. Publisher-designated levels for textbook-related materials
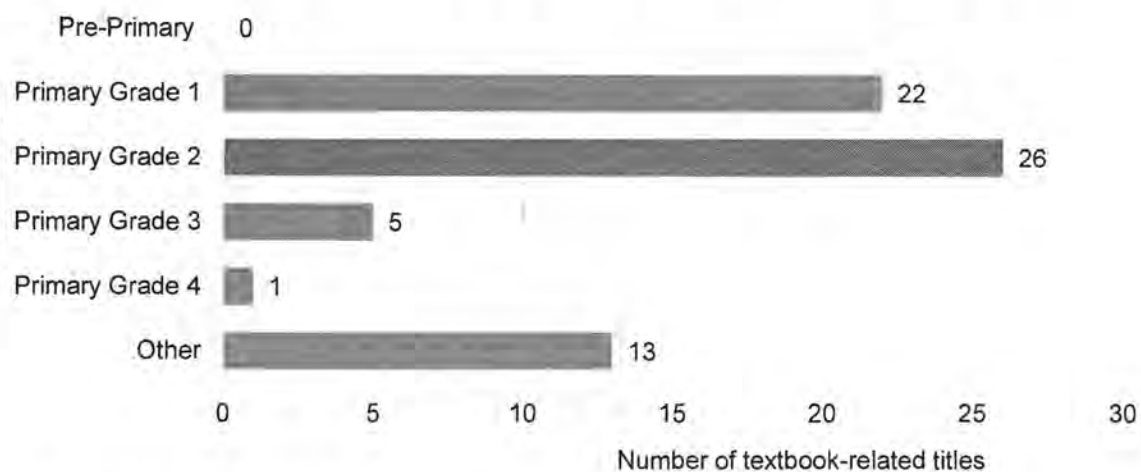
Note: Multiple responses per title were possible.

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this calculation for narrative and informational texts.

As shown in **Figure E-3**, although there were few supplementary titles overall, there were even fewer available for earliest stages of literacy development. Of the 167 narrative and informational titles examined, only eight (5 percent) had maximum counts 25 wpp, and 102 (61 percent) had counts of more than 75 wpp. These proportions amount to a significant imbalance in the difficulty levels of the available supplementary materials.

Figure E-3. Number of narrative and informational non-textbook titles by maximum words per page

1-10 Words per page	2
11-25 Words per page	4 2
26-50 Words per page	24 2
51-75 Words per page	19 2
>75 Words per page	92 7

Number of non-textbook titles

■ Narrative   Informational
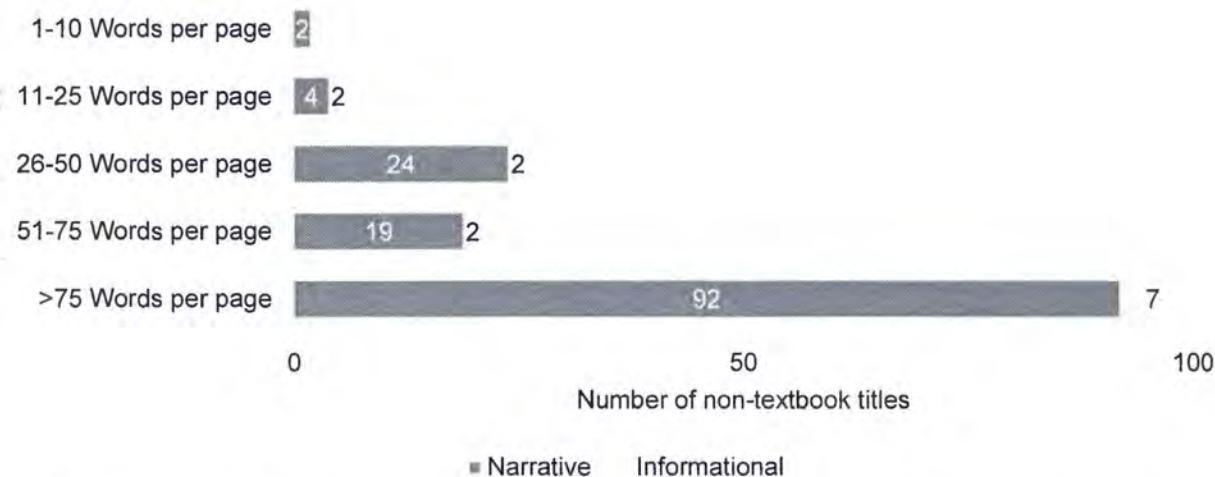
Note: This calculation was not performed for poetry or reference titles (36 titles). Thirteen narrative titles are missing data.

Illustrations

Of the 298 titles surveyed, 224 (75 percent) were illustrated; specifically, 162 (54 percent) were illustrated in black and white and/or grayscale, and 62 (21 percent) were illustrated in either all color or a mix of color and black and white (**Figure E-4**). After the Democratic Republic of the Congo (DRC), Mali had the highest percentage of texts without illustrations.

Figure E-4. Presence and type of illustrations

Is the book illustrated?

Yes, some B&W and some color, 3%

Yes, all color, 18%

No, 25%

Yes, all B&W and/or grayscale, 54%
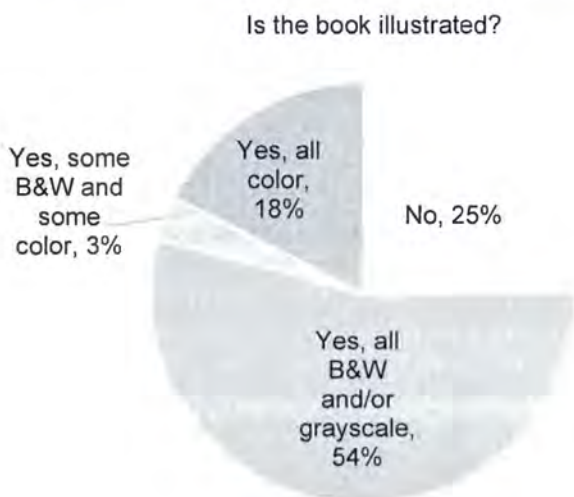
Content Themes

The data collectors examined 271 of the titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts and illustrations and checked off the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure E-5**.

The most common theme was animals, appearing in 135 (50 percent), followed by morals/values (73 [27 percent]), and culture (70 [26 percent]). The least common themes found in the surveyed titles were media and energy (both with zero mentions [zero percent]), and science, technology, and plants, each with one title (less than one percent). This finding may correspond to the low number (13 [five percent]) of informational titles encountered.

Only four titles (one percent) were recorded as containing religious content: two (one percent) featured Christianity, one (less than one percent) included Islam, and one (less than one percent) featured a traditional religion. The data collectors contacted many faith-based organizations that produce materials but found that most of the organizations' efforts focus on developing materials for adult literacy.

Figure E-5. Content themes

Theme	Number of titles
Adventure	21
Agriculture	48
Alphabet	32
Animals	135
Biography	3
Business	4
Careers/Professions/Jobs/Work	32
Colors or shapes	4
Community	31
Culture	70
Education/School	40
Energy	0
Environment	30
Family	35
Food/Nutrition	7
Friendship	31
Health/Personal Hygiene	45
History	45
Holidays/Celebrations	13
Home Life	32
How-to/Skill Development	10
Human Body	5
Humor	19
Media	0
Morals/Values	73
Numeracy/Counting/Math	7
Peace/Justice/Equality/Human Rights	2
Plants	1
Religion	4
Safety	5
Science	1
Social Studies/Civic Education	11
Technology	1
Travel/Transportation	22
Unknown/Unable to Evaluate	16
Weather	4

Number of titles

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 271 titles for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and

reference materials were excluded from this item. The data collectors judged 245 titles (90 percent) as containing "very familiar" content, 14 (five percent) as containing "semi-familiar" content, and two titles (less than one percent) as containing "mostly unfamiliar" content for the target audience.

The data collectors also examined the illustrations of these 271 titles for the presence of any potentially sensitive content, including traumatic events, gore, smoking and/or illegal drug use, nudity, sexual content, or other known cultural taboos (**Figure E-6**). The data collectors did not find any potentially sensitive content in 233 (86 percent) of the titles evaluated for this item. Each of the categories of potentially sensitive content were rare, occurring in five or fewer titles.

Figure E-6. Potentially sensitive content in the illustrations
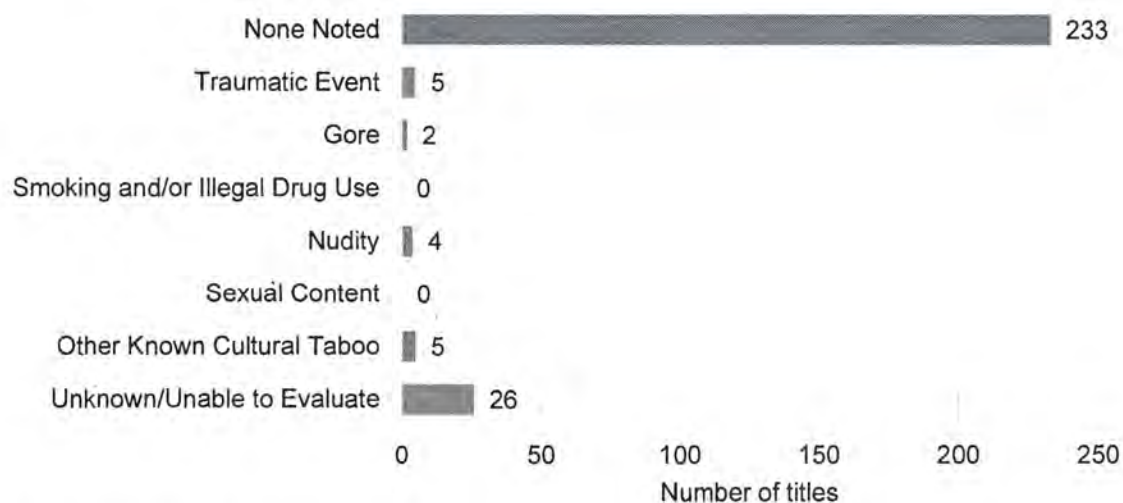
Note: Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of the materials (i.e., 209 titles) for the frequency and equality of representation of people in the illustrations according to gender, ethnic or religious group identity, and disability. The data collectors did not evaluate all titles for these questions; exclusions were teacher's guides, reference materials, and titles that were not illustrated with humans or anthropomorphic animals.

Gender

Of the 209 titles analyzed for gender balance, the data collectors deemed that gender was not apparent in 24 (12 percent) of the books, as when the characters were animals without obvious gender markers. Of the remaining 185 titles, the data collectors perceived a majority of them to portray an overall balance of both genders (145 [78 percent]). However, 38 titles (21 percent) featured primarily male characters and two (one percent) featured primarily female characters (**Figure E-7**). Of the countries surveyed, this was the second highest percentage of titles featuring primarily male characters.

For 180 of the titles where gender was apparent, the data collectors judged whether the male and female characters were portrayed "with equal skills, knowledge, accomplishments, or roles." Overall, the data collectors judged that 151 titles (84 percent) portrayed male and female characters comparably, and seven titles (four percent) portrayed them with unequal status. For 22 titles (12 percent), the data collectors considered that there was an insufficient basis for comparison.

Figure E-7. Frequency of gender representation in the illustrations
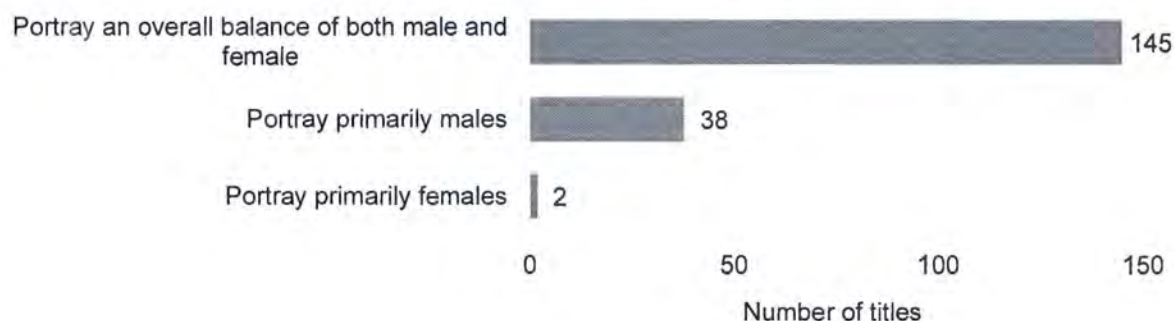
Bar chart showing:
- Portray an overall balance of both male and female: 145
- Portray primarily males: 38
- Portray primarily females: 2

X-axis: Number of titles (0, 50, 100, 150)

Ethnic and Religious Group Identity

Similarly to gender, the data collectors examined the illustrations of 209 titles for the frequency of representation of different ethnic and/or religious groups, when apparent. Out of those titles, the data collectors deemed 118 (56 percent) as not portraying characters with obvious ethnic or religious group identity markers (**Figure E-8**). In 79 titles (38 percent), members of only one ethnic or religious group were portrayed, but the data collectors found this to be representative of the local population, where 95 percent of Malians are Muslim. The data collectors judged five titles (two percent) as portraying primarily members of one ethnic or religious group to the exclusion of another group, and six (three percent) as portraying different groups proportional to their presence in the local population.

For the overwhelming majority of titles, the data collectors judged that there was an insufficient basis for comparing the nature of the portrayal, if any, of different ethnic or religious groups in the illustrations. For only one title (less than one percent) did any researcher indicate that different groups were portrayed unequally versus 15 titles (seven percent) in which they were judged to be portrayed as having equal roles, skills, knowledge, and accomplishments.

Figure E-8. Frequency of ethnic/religious group representation in the illustrations

No ethnic or religious group identity is evident in the illustrations. — 118

The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population. — 6

The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group. — 79

The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population. — 5

Number of titles (0, 20, 40, 60, 80, 100, 120)

Disability

The data collectors also examined the 209 titles surveyed for the frequency of representation of people with disabilities (**Figure E-9**). Overwhelmingly, the materials lacked illustrations of people with any type of disability (201 [96 percent]); characters with disabilities were portrayed in just eight titles (four percent).

In the eight titles containing illustrations of people with disabilities, these characters were not shown as participating fully in Malian society. Only two titles (one percent) portrayed the characters with disabilities as having the same "skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

Figure E-9. Frequency of the representation of people with disabilities in the illustrations
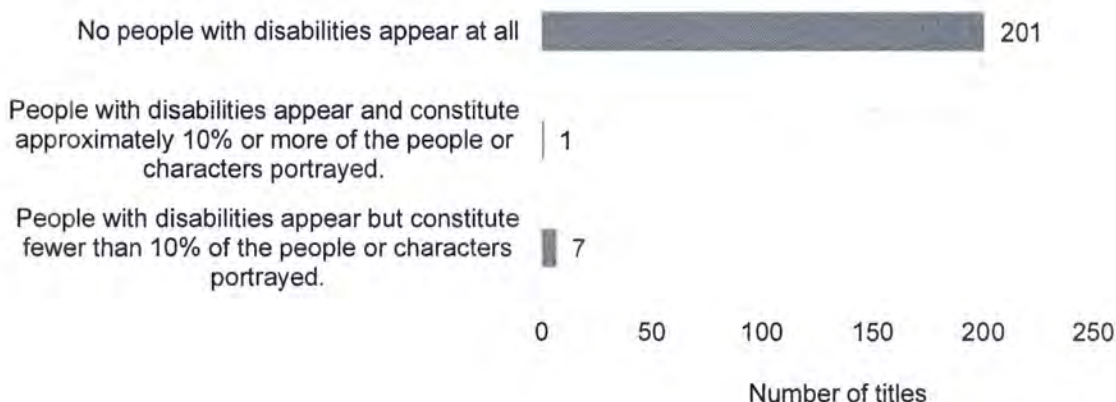
No people with disabilities appear at all — 201

People with disabilities appear and constitute approximately 10% or more of the people or characters portrayed. — 1

People with disabilities appear but constitute fewer than 10% of the people or characters portrayed. — 7

0   50   100   150   200   250

Number of titles

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

Of the 298 titles analyzed, a slight majority of the titles (159 titles [53 percent]) contained a copyright symbol.

Regarding explicit statements about restrictions or permissions for reuse, the data collectors identified 113 titles (38 percent) that contained an explicit statement along the lines of "All Rights Reserved," versus only two titles (less than one percent) that granted some permissions for reuse. In 179 titles (60 percent), there was no explicit statement either way, and the restrictions for the remaining four titles (one percent) were unknown.

Creative Commons licensing is not widespread in Mali. Only one title (less than one percent), a shell book in soft copy published by the American University of Nigeria, was identified as having a Creative Commons license.

Medium

Out of the 298 titles, the data collectors found 281 (94 percent) in hard copy, 18 (six percent) in soft copy, of which one was available in both media. Fifteen (83 percent) of the 18 titles found in soft copy were materials from the U.S. Agency for International Development (USAID)/Programme Harmonisé d'Appui au Renforcement de l'Education (PHARE, Mali Road to Reading Program).

D. Landscape of the Production of Children's Reading Materials in African Languages in Mali

Publisher Types

Figure E-10 shows the number of titles published by each type of organization. For the purposes of this study, "publisher" referred broadly to any organization responsible for developing or

funding the materials. Some titles were produced jointly by two or more organizations, at times belonging to different categories, and one publisher could fit into more than one category (e.g., nonprofit/nongovernmental organization [NGO], faith-based organizations).

Of the 298 titles surveyed, the data collectors recorded the highest number of titles (122 [41 percent]) from commercial publishers. However, the data collectors also received significant numbers of materials from nonprofit organizations (86 [29 percent]) and government entities (63 [21 percent]), so there was no extreme dominance by one type of publisher.

Regarding the 23 titles published under bilateral or multilateral cooperation agreements, four were published with the help of the United Nations Children's Fund (UNICEF), 18 were funded by USAID, and two with the World Bank/Global Partnership for Education. In addition, four titles were produced with support from the Netherlands Cooperation and from the African Union.

Figure E-10. Number of titles by publisher type
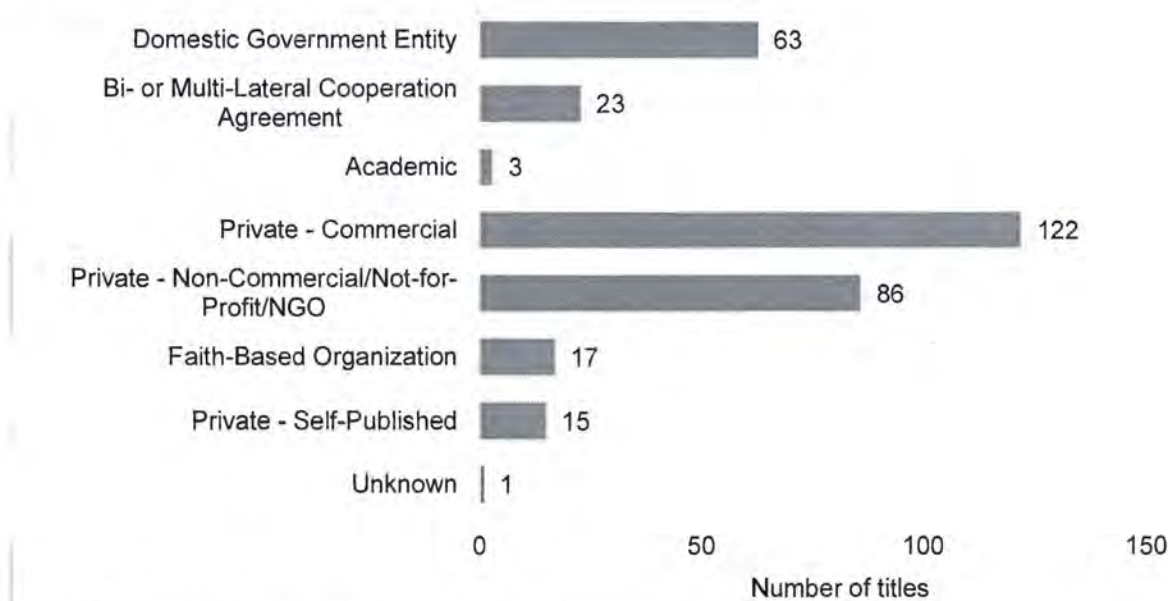
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

The year of publication for the titles surveyed ranged from 1989 to 2015 (**Figure E-11**). The mean year of publication was 2007. The highest number of titles (123 [41 percent]) were published within the past five years.

Figure E-11. Year of publication
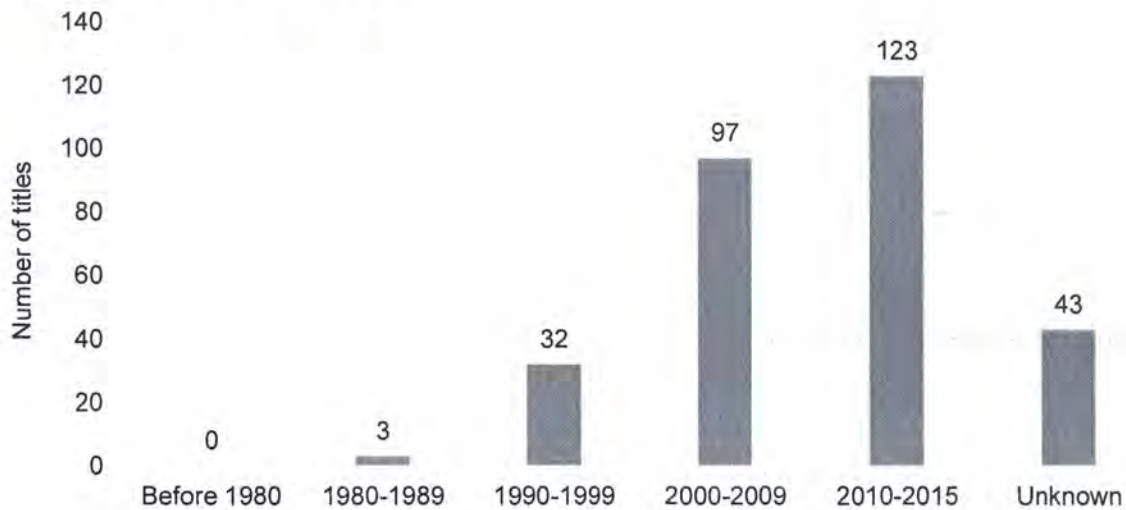
International Standard Book Number

Of the 298 titles surveyed, 129 titles (43 percent) contained an International Standard Book Number (ISBN).

Price

The data collectors were able to identify and record the price for only 24 titles (eight percent), thereby limiting the ability to draw any generalizations from such a small subset. The prices of the books were unknown, mainly because the providers often had received free sample books or received them as donations and therefore did not know the cost. Out of the 24 titles with a recorded cost, 16 (66 percent) were marked as free, and the remaining eight titles (33 percent) ranged from $0.80 to $12.08 (U.S. dollars [USD]).[5]

4. Remarks

Mali has had a long history of encouraging African languages in education. However, based on the results of the inventory, there is a lack of reading materials appropriate for the early grades in Malian languages. In most languages besides Bambara, the number of student textbooks was low or nonexistent. Most of the supplemental materials encountered contained too much text density per page to be useful for the earliest stages of reading development. Further research must be conducted to investigate this deficiency in both the availability and appropriateness of reading materials.

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[5] Exchange rates used were 1 Central African Franc (CFA) = 0.0016 USD and 1 Euro = 1.0988 USD.

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Annex F. Summary of the Early Grade Reading Materials Survey in Mozambique

Geography and Demographics

Size:	799,380 square kilometers (km²)
Population:	25.3 million (2015)
Capital:	Maputo
Urban:	32% (2015)
Administrative Divisions:	10 provinces + 1 city
Religion:	56% Christian 18% Muslim 7% Other 19% None

Source: Central Intelligence Agency (2015).
Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 6–12 years):[a]	5.3 million
Adult (aged >15 years)	59%	73%	45%	2013 Primary School GER:[a]	105%, up from 69% in 1999
Youth (aged 15–24 years)	77%	84%	70%	2013 Pre-primary School GER:[a]	Data unavailable

Sample EGRA Results[b]	Language:	Portuguese		Oral Reading Fluency:	Mean: 2.7 (Nampula)/1.7 (Zambezia) correct words per minute
	When:	2013			
	Where:	Nampula and Zambezia			Standard deviation: 14.5 (Nampula)/7.2 (Zambezia)
	Who:	1,800 P3 students			Zero scores: 93% (Nampula)/ 56% (Zambezia)

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P3 = Primary Grade 3. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: Raupp et al. (2013).

Language

Number of Living Languages:[a] 43

Major Languages[b]	Estimated Population[c]	Government Recognized Status
Portuguese	1,580,000 (L1) (2014) 6,300,000 (L2)	"Official"
Makhuwa	3,220,000 (L1) (2014)	Regional LWC
Tsonga	2,780,000 (L1) (2014)	Regional LWC
Ndau	500,000 (L1) (2014)	Regional LWC
Lomwe	1,660,000 (L1) (2014)	Regional LWC
Sena	1,390,000 (L1) (2014)	Regional LWC
Tswa	695,000 (L1) (2014)	Regional LWC
Chuwabu, Chopi, Makonde, Mwani, Nyanja, Nyungwe, Ronga, Tonga, Yao	Range from 100,000–947,000 (L1)	Additional languages used in schools

Note: L1 = first language; L2 = second language; LWC = language of wider communication.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis, et al., 2015).
[c] Source: Lewis, et al. (2015).

Mozambique Findings in Brief:

The Mozambican government is moving toward a full implementation of bilingual education in Portuguese and 16 indigenous languages by 2017. Materials were found in all of these languages, and no one language comprised more than 18% of the inventory. Supplementary materials were approximately twice as numerous as textbook-related materials. Relatively few textbook-related titles were found for the earliest grade levels, kindergarten through Primary Grade 2. In addition, a relatively low number of the titles used a phonics approach to reading instruction. However, most of the content appeared to be culturally familiar and appropriate for the target population. A majority of the illustrations portrayed the genders with equal frequency, but people with disabilities were largely absent. Four publishing entities (i.e., one governmental, one commercial, and two nonprofit organizations) were responsible for the bulk of the materials surveyed. Copyrights and International Standard Book Numbers were rarely found in materials.

1. Language in Education Policy in Mozambique

Article 9, Section 1 of the Constitution of the Republic of Mozambique states, "The State shall esteem national languages as cultural and educational heritage, and shall promote their development and increasing use as languages that convey our identity." Also, Article 10, Section 1 of the Constitution identifies Portuguese as the official language.

Experiments with bilingual models using a Mozambiquan language and Portuguese at the primary level began in rural areas in the 1990s. In 2003, Mozambique's government first introduced some bilingual education for primary schools into the official education system. The 2002 Curriculum Reform policy allowed three options: "(1) Portuguese-medium education … ; (2) Portuguese-medium education with 'recourse' to the local language as needed … ; and (3) mother tongue–based bilingual education" (Chimbutane and Benson, 2012). According to

Henriksen (2010), in the mother tongue–based bilingual model, the Mozambican languages are used as the main language of instruction (LOI) for the first three years of primary school, and Portuguese is taught as a subject. The transition to using Portuguese as LOI begins in Primary Grade 4, and its usage gradually increases through Primary Grade 6. Then the Mozambican language is subsequently phased out in Primary Grade 7 Henriksen (2010). However, the timing of the transition to Portuguese as LOI may be under discussion, with some advocating postponing it until Primary Grade 5 (Observatory of Portuguese Speaking Countries, 2015).

In urban schools, Portuguese is used as the sole LOI throughout all grades (Henriksen, 2010). According to Chimbutane (2011), rural schools in linguistically homogenous areas in each Mozambican province use the bilingual education model. The number of schools implementing bilingual education has gradually increased, from 88 schools in 2007 (Sendela and Bisqué, 2007) to nearly 500 by 2015 (ASSECOM, 2015).

An evaluation report by the Ministry of Education and Human Development in Mozambique pointed to the use of Portuguese as LOI as challenge for many students because they frequently do not know Portuguese before arriving at school (National Institute for Education Development, 2014). This study and many others have led the government to pay more attention to the use of Mozambican languages to teach children how to read and write. Recently, the Ministry of Education and Human Development in Mozambique announced that starting in 2017, primary school students will receive their education in one of 16 local languages alongside Portuguese (Lusa, 2015). The 16 local languages are Chopi, Chuwabo, Lomwe, Makhuwa, Makonde, Mwani, Ndau, Nyanja, Nyungwe, Ronga, Sena, Tewe, Tonga, Tsonga, Tswa, and Yao.

2.   Data Collection

The data collectors focused their data collection efforts in Maputo, which is the main publishing center in Mozambique, but they also spent five days in the cities of Nampula and Gaza to fully capture the available material. In all, the data collectors surveyed 324 titles, the large majority of which (277 [85 percent]) came directly from publishers and 26 (eight percent) from Web sites.

3.   Findings

A. Availability of Materials for Early Grade Reading in Mozambican Languages

Materials by Language

The data collectors surveyed 324 titles in 20 languages, of which 17 were Mozambican and three European, as shown in **Table F-1**. The data collectors found materials in each of the 16 languages used in Mozambique's education system. In contrast to many other countries in the study, the languages in Mozambique were more evenly represented. Although the highest number of titles was found in Makhuwa, it only constituted 17 percent of the data set, and four other languages also had more than a 10 percent share.

Although the focus was on Mozambican materials, 43 titles containing Portuguese were recorded by the data collectors; all of these were bilingual or multilingual titles with a Mozambican language, and most of them were reference materials.

The majority of the titles surveyed were monolingual, but 12.8 percent of titles were bilingual, and 0.9 percent were trilingual. In all but two of the multilingual titles, Portuguese was the second language used. The exceptions were a French-Ronga dictionary and a book of stories and poems written in Makhuwa, Makonde, and Mwani.

All of the titles surveyed were written in a Latin-based script. Eighteen Mozambican languages have a standardized orthography, of which only Barwe and Manyika are not yet a part of the official education system in the country. The Núcleo de Estudo de Línguas Moçambicanas (NELIMO, Language Study Core Mozambican) proposed the orthographies, which have been adopted and used by the Ministry of Education and Human Development and other stakeholders working in bilingual education (Language Research Centre Mozambican, 1989; Ngunga and Faquir, 2011; Sitoe and Ngunga, 2000). In these orthographies, authors do not mark linguistic tone, except in some academic writing such as monographs and dissertations. However, the data collectors were unable to evaluate whether the books surveyed conformed to the standardized orthography.

Table F-1. Languages in Which Materials Were Found in Mozambique

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Mozambique[c]	Titles per Language	Percentage of Titles Surveyed[d]
1	Makhuwa	vmw	3,220,000	56	17.3%
2	Portuguese	por	1,580,000 (L2)	43	13.3%
3	Makonde	kde	360,000	41	12.7%
4	Nyanja	nya	599,000	41	12.7%
5	Mwani	wmw	100,000	36	11.1%
6	Yao	yao	195,000	32	9.9%
7	Tsonga	tso	2,780,000	24	7.4%
8	Ndau	ndc	500,000	14	4.3%
9	Nyungwe	nyu	262,000	14	4.3%
10	Tonga	toh	224,000	11	3.4%
11	Lomwe (Mozambique)	ngl	1,660,000	9	2.8%
12	Tswa	tsc	695,000	9	2.8%
13	Chuwabu	chw	664,000	8	2.5%
14	Chopi	cce	760,000	7	2.2%
15	Ronga	rng	423,000	7	2.2%
16	Sena (Mozambique)	seh	1,390,000	7	2.2%

17	Tewe	twx	250,000	6	1.9%
18	Manyika	mxc	100,000	4	1.2%
19	English	eng	Not applicable	3	0.9%
20	French	fra	Not applicable	1	0.3%

Note: L2 = second language

[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis, et al., 2015). Language/dialect distinctions that have been assigned separate International Organization for Standardization (ISO) codes are provided in parentheses.

[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).

[c] Source: Lewis et al. (2015). Unless otherwise noted, all speaker population estimates are from 2014.

[d] Because of bilingual titles, the total will surpass 100%.

Types of Materials

Table F-2 details the types of materials found by language. Key observations include the following:

- 109 (34 percent) were textbooks or related materials, and 215 (66 percent) were supplementary, nontextbook titles.

- Student textbooks were the most common sub-type of textbook-related material, but student workbooks and teacher's guides were also relatively well represented.

- Narrative texts were by far the most common supplementary material, but informational and reference titles were not uncommon.

- No textbook-related materials were found for Manyika.

Table F-2. Number of Different Types of Materials Found, by Language

	Textbook-Related					Nontextbook/Supplementary							
Languages[a]	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Chichewa	7	3	—	10	3.1%	18	8	1	1	28	8.6%	38	11.7%
Chichewa/Portuguese	—	—	—	0	0.0%	1	—	1	—	2	0.6%	2	0.6%
Chopi	—	2	2	4	1.2%	1	—	—	—	1	0.3%	5	1.5%
Chopi/Portuguese	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Chuwabu	—	3	3	6	1.9%	—	—	—	—	0	0.0%	6	1.9%
Chuwabu/Portuguese	—	—	—	0	0.0%	—	—	2	—	2	0.6%	2	0.6%
Lomwe	—	2	3	5	1.5%	1	2	—	—	3	0.9%	8	2.5%
Lomwe/Portuguese	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Makhuwa	6	6	—	12	3.7%	24	13	—	—	37	11.4%	49	15.1%
Makhuwa/Portuguese	—	—	—	0	0.0%	2	1	2	—	5	1.5%	5	1.5%
Makhuwa/Makonde/ Mwani	—	—	—	0	0.0%	—	—	—	1	1	0.3%	1	0.3%
Makonde	3	8	—	11	3.4%	17	5	—	—	22	6.8%	33	10.2%
Makonde/Makhuwa/ Portuguese	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Makonde/Portuguese	—	—	—	0	0.0%	1	2	3	—	6	1.9%	6	1.9%
Manyika	—	—	—	0	0.0%	4	—	—	—	4	1.2%	4	1.2%
Mwani	5	3	—	8	2.5%	19	3	—	—	22	6.8%	30	9.3%
Mwani/Portuguese	—	—	—	0	0.0%	1	1	3	—	5	1.5%	5	1.5%
Ndau	3	—	4	7	2.2%	2	3	—	—	5	1.5%	12	3.7%
Ndau/Portuguese	—	—	—	0	0.0%	—	—	2	—	2	0.6%	2	0.6%
Nyungwe	6	—	1	7	2.2%	—	5	—	—	5	1.5%	12	3.7%
Nyungwe/Portuguese	—	—	—	0	0.0%	—	—	2	—	2	0.6%	2	0.6%
Ronga	—	2	2	4	1.2%	1	—	—	—	1	0.3%	5	1.5%
Ronga/Portuguese	—	—	—	0	0.0%	—	—	2	—	2	0.6%	2	0.6%
Sena	—	1	1	2	0.6%	—	3	—	—	3	0.9%	5	1.5%
Sena/Portuguese	—	—	—	0	0.0%	—	—	2	—	2	0.6%	2	0.6%
Tewe	3	—	2	5	1.5%	—	—	—	—	0	0.0%	5	1.5%
Tewe/Portuguese	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%

	Textbook-Related					Nontextbook/Supplementary							
Languages[a]	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Tonga	1	2	3	6	1.9%	—	3	—	—	3	0.9%	9	2.8%
Tonga/Portuguese	—	—	—	0	0.0%	—	—	2	—	2	0.6%	2	0.6%
Tsonga	6	—	—	6	1.9%	8	1	1	2	12	3.7%	18	5.6%
Tsonga/Chopi/ Portuguese	—	—	—	0	0.0%	1	—	—	—	1	0.3%	1	0.3%
Tsonga–Portuguese	—	—	—	0	0.0%	1	1	3	—	5	1.5%	5	1.5%
Tswa	3	—	4	7	2.2%	1	—	—	—	1	0.3%	8	2.5%
Tswa/Portuguese	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Yao	4	5	—	9	2.8%	16	4	—	—	20	6.2%	29	9.0%
Yao/French	—	—	—	0	0.0%	—	—	1	—	1	0.3%	1	0.3%
Yao/Portuguese	—	—	—	0	0.0%	—	—	2	—	2	0.6%	2	0.6%
English	—	—	—	0	0.0%	3	—	—	—	3	0.9%	3	0.9%
Total	47	37	25	109	33.6%	122	55	34	4	215	66.4%	324	100.0%

Note: Percentages may not sum exactly due to rounding.

[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis, et al., 2015).

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The data collectors analyzed 109 textbook-related materials with regard to their pedagogical components. As shown in **Figure F-1**, the most common components were reading passages (88 [81 percent]), writing instruction and/or practice (80 [73 percent]), and comprehension questions (88 [81 percent]). Only 10 titles (nine percent) were found to employ what could be construed as a phonics approach to reading instruction.[1]

Figure F-1. Pedagogical components in textbook-related materials
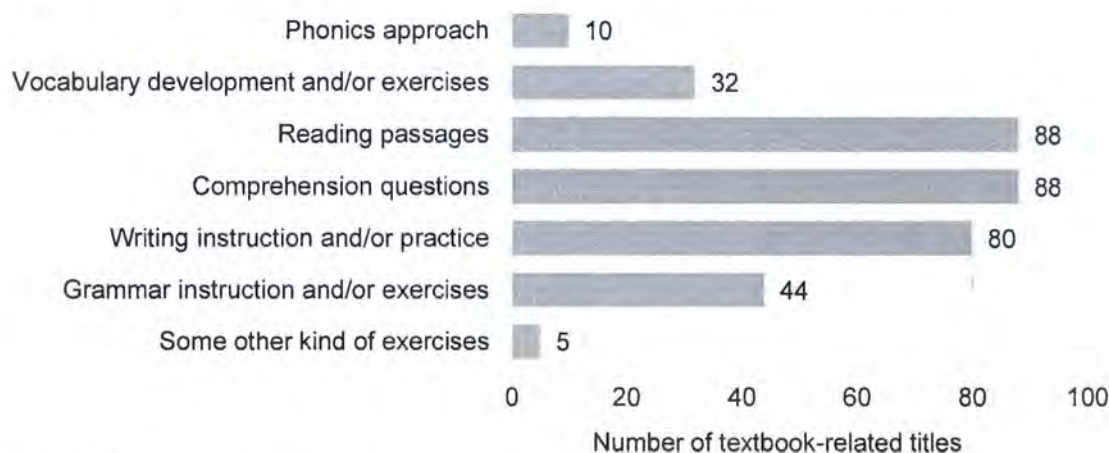
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Out of the 109 textbook-related titles, only three did not have a publisher-designated grade level (**Figure F-2**). These 106 titles all came from two publishers: Associaçao Progresso and the Instituto Nacional do Desenvolvimento da Educação (INDE, National Institute for Education Development). Associaçao Progresso is a nongovernmental organization (NGO) working in bilingual education in five languages (i.e., Kimwani, Makhuwa, Nyanja, Shimakonde, and Yaawo) in northern Mozambique. INDE is the branch of the Ministry of Education and Human Development that handles education development. The production of materials for bilingual education is strictly limited to the Ministry of Education via INDE and Associaçao Progresso. Although both organizations produce materials for all grade levels, in the materials encountered during the survey, Associaçao Progresso published all of the materials for Primary Grades 1, 5, and 6 and all adult literacy materials. Although Associaçao Progresso also published some

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[1] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

materials for Primary Grades 2 through 4, INDE published 80 percent of the materials labeled for those grades.

The data collectors did not find any titles for the pre-primary level. Although there are experimental pre-primary programs in some provinces, the national education system begins with Primary Grade 1.

Figure F-2. Publisher-designated levels for textbook-related materials
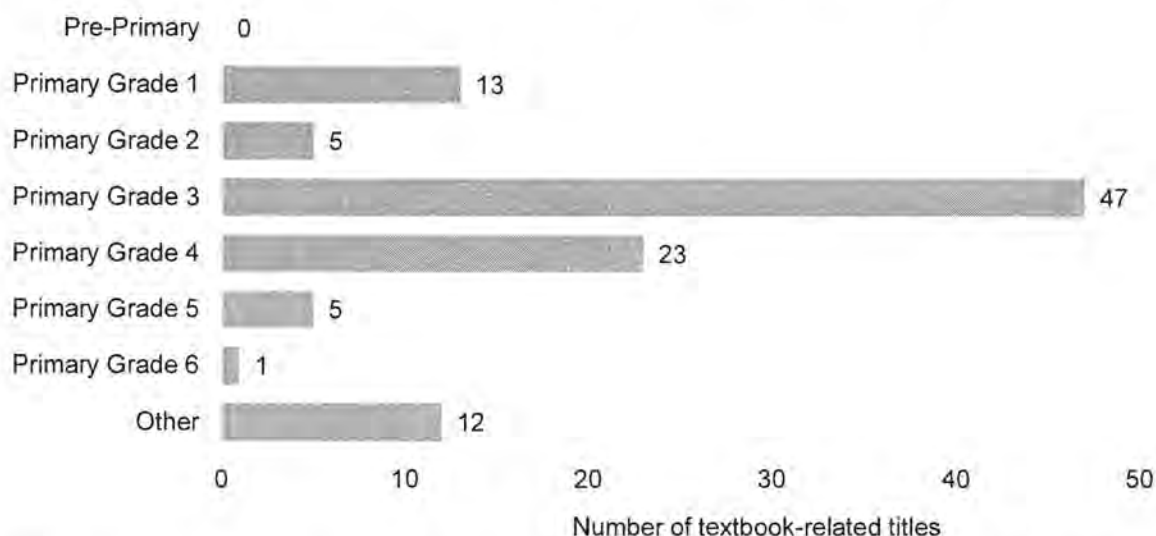
Note: Multiple responses were possible per title. Kindergarten through Primary Grade 3 were targeted, but because of differences in publishers' leveling systems, materials labeled for other levels were included if the titles were potentially adaptable to the early grades.

Nontextbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this count for 175 narrative and informational texts.

The highest number (68 [32 percent]) of nontextbook materials was found in the intermediate range of 26–50 wpp (**Figure F-3**).

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Figure F-3. Number of narrative and informational nontextbook titles by maximum words per page
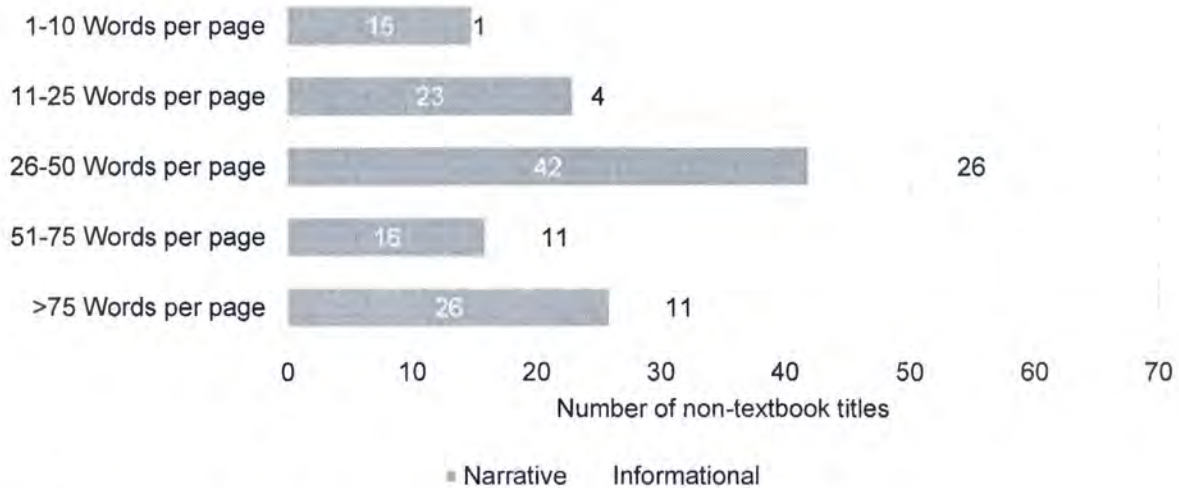
	Narrative	Informational
1-10 Words per page	15	1
11-25 Words per page	23	4
26-50 Words per page	42	26
51-75 Words per page	16	11
>75 Words per page	26	11

Number of non-textbook titles

■ Narrative Informational

Note: This calculation was not performed for poetry or reference titles.

Illustrations

Out of the 324 titles surveyed, 263 (81 percent) were illustrated. Non-illustrated materials included 31 reference titles, 24 teacher's guides, and three student textbooks. The largest number of illustrated titles (142 [44 percent]) were in black and white and/or grayscale, as shown in **Figure F-4**. The titles illustrated in full color were not limited to any one type of publisher. However, nonprofit sources were more likely to produce titles illustrated in black and white and/or grayscale. Although nonprofit sources produced 168 (52 percent) of all materials examined, they produced 78 percent of black and white and/or grayscale materials.

Figure F-4. Presence and type of illustrations

Is the book illustrated?

No, 19%

Yes, all B&W and/or grayscale, 44%

Yes, all color, 33%

Yes, some B&W and some color, 4%
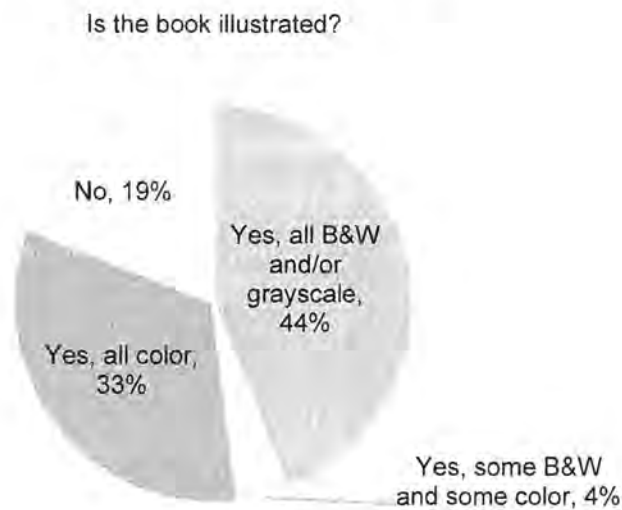
Content Themes

The data collectors examined 266 of the titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts and/or illustrations and checked off the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure F-5**.

The most common theme was community, appearing in 137 titles (52 percent), followed closely by animals (133 [50 percent]), family (115 [43 percent]), and friendship (102 [38 percent]). Colors or shapes and energy were two of the topics that did not appear in any of the surveyed titles (Figure F-5).

Of the 266 titles examined for content themes, only 11 (four percent) contained religious content. Ten titles featured Catholicism, four Protestantism, and five Islam. These titles come from only two publishers: Associaçao Progresso and Wycliffe SA.

Figure F-5. Content themes

Theme	Number of titles
Adventure	1
Agriculture	56
Alphabet	15
Animals	133
Biography	5
Business	1
Careers/Professions/Jobs/Work	17
Colors or Shapes	0
Community	137
Culture	57
Education/School	69
Energy	0
Environment	85
Family	115
Food/Nutrition	61
Friendship	102
Health/Personal Hygiene	84
History	9
Holidays/Celebrations	13
Home Life	60
How-to/Skill Development	1
Human Body	21
Humor	3
Morals/Values	39
Numeracy/Counting/Math	10
Peace/Justice/Equality/Human...	13
Plants	88
Religion	11
Safety	4
Science	12
Social Studies/Civic Education	45
Technology	1
Travel/Transportation	41
Weather	8

Number of titles

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 266 titles for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. The data collectors judged 251 titles (94 percent) as containing "very familiar" content and 14 (five percent) as containing "semi-familiar" content for the target audience. The data collectors were unable to evaluate the familiarity of the final title. The data collectors did not judge any titles as containing "most unfamiliar" content for the target audience.

The data collectors reviewed the illustrations of 135 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, and other known cultural taboos (**Figure F-6**). The data collectors did not find any potentially sensitive content for 105 titles (78 percent) evaluated for this item. The most common type of content flagged for its potentially sensitive nature was gore, which appeared in 16 titles (12 percent), and traumatic event, which was found in seven titles (five percent). The other categories were relatively rare, occurring in fewer than five titles each.

Figure F-6. Potentially sensitive content in the illustrations
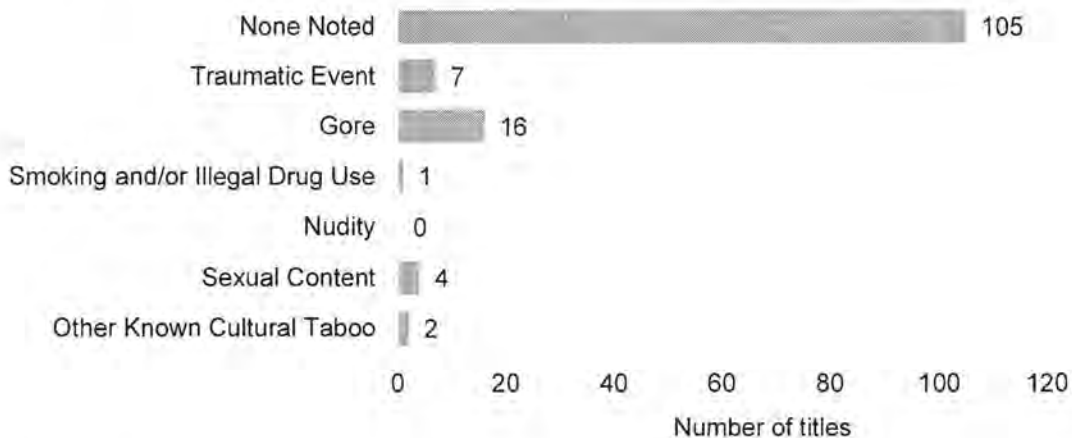
Frequency and Equality of Representation

The data collectors examined a subset of 204 titles regarding the frequency and equality of representation of people in the illustrations according to gender, ethnic or religious group identity, and disability. Teacher's guides, reference materials, and titles not illustrated with humans or anthropomorphic animals were excluded from this item.

Gender

Of the 204 titles, the data collectors determined that gender was not apparent in the illustrations in 38 of the titles, thus furthering limiting the subset used to examine gender balance and roles to 166 titles. Of the remaining titles, the data collectors judged 147 (89 percent) to portray an

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overall balance of both genders, and much fewer to portray primarily male (9 [five percent]) or female (10 [six percent]) characters in titles (**Figure F-7**).

In addition, for the 166 titles, the data collectors evaluated whether the illustrations portrayed male and female characters with "equal skills, knowledge, accomplishments, or roles." The data collectors judged that the male and female characters were portrayed unequally in only two (one percent) of these titles.

Figure F-7. Frequency of gender representation in the illustrations
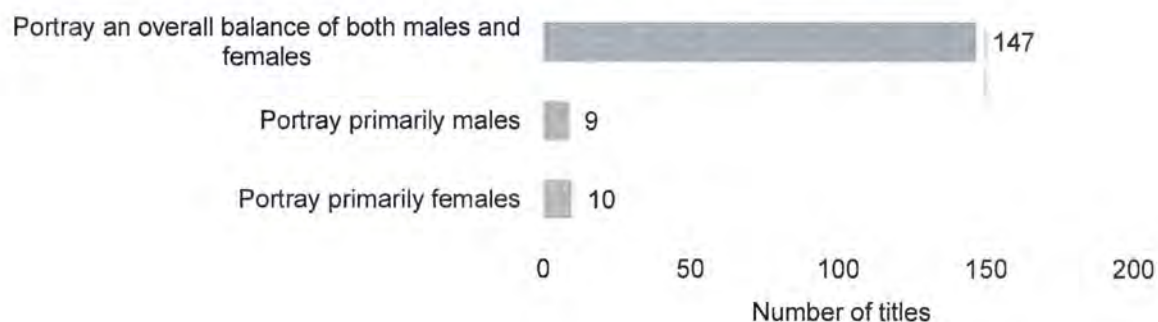
Ethnic and Religious Group Identity

Similarly to gender, the data collectors examined the illustrations of 204 titles for the frequency of representation of different ethnic and/or religious group members. The data collectors determined that of those titles collected, 191 (94 percent) did not portray characters with obvious ethnic or religious group identity markers, and none of the materials portrayed one ethnicity or religious group to the exclusion of another group present in the target population (**Figure F-8**).

Of the 204 titles evaluated, the data collectors found only one title (less than one percent) in which ethnic or religious groups were judged to be portrayed with unequal "skills, knowledge, accomplishments, or roles."

Figure F-8. Frequency of ethnic/religious group representation in the illustrations
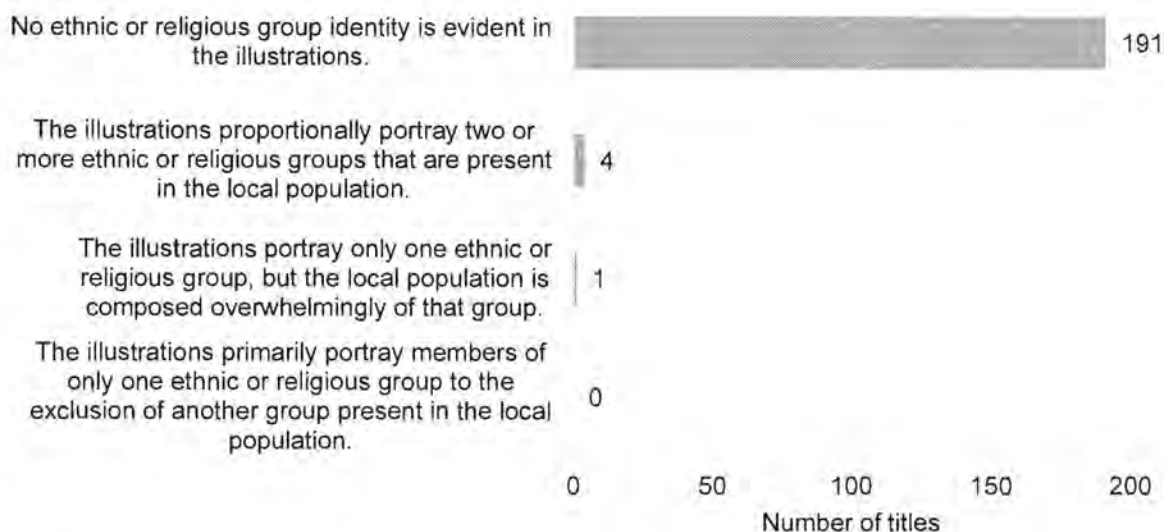
No ethnic or religious group identity is evident in the illustrations. ████████████████████ 191

The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population. | 4

The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group. | 1

The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population. 0

0   50   100   150   200

Number of titles

Disability

Similar to the gender and ethnicity and religion questions, the data collectors examined the illustrations of 204 titles for the frequency of representation of people with disabilities. Of those titles, the data collectors found that only 11 titles (five percent) portrayed any characters with obvious disabilities (**Figure F-9**), and 193 (95 percent) did not.

When people with disabilities did appear in the surveyed materials, six (55 percent) out of the 11 titles were judged to portray them "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

Figure F-9. Frequency of the representation of people with disabilities in the illustrations
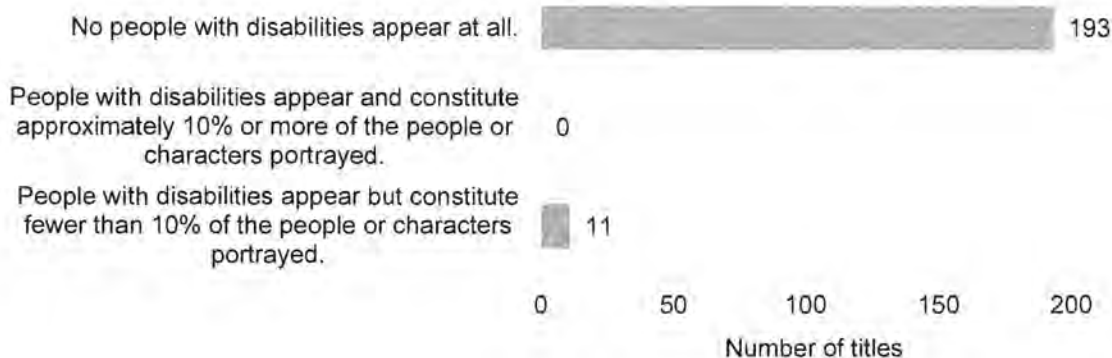
No people with disabilities appear at all. ████████████████████ 193

People with disabilities appear and constitute approximately 10% or more of the people or characters portrayed. 0

People with disabilities appear but constitute fewer than 10% of the people or characters portrayed. ▓ 11

0   50   100   150   200

Number of titles

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restriction, and Permissions

Out of the 324 titles surveyed, only 47 (15 percent) contained a copyright symbol. Moreover, most of the materials surveyed did not contain any explicit statements concerning the rights of others to reproduce the materials. On one hand, four items (one percent) did have a statement equivalent to "All Rights Reserved," and these materials came from two commercial publishers. On the other hand, 41 books (13 percent) granted some permissions for reuse, 25 (eight percent) of which are available for free online.

The survey findings suggest that Creative Commons licenses are not in use in Mozambique. The three titles that used the CC-BY[2] license came from the South African Institute for Distance Education's (SAIDE's) African Storybook Project, which is located outside of Mozambique.

Medium

Data collectors found 276 titles (85 percent) in hard copy and 48 (15 percent) in soft copy. Most of the soft copies were provided by SIL International, Plural Editores, or individual, self-published authors.

D. Landscape of the Production of Children's Reading Materials in Mozambican Languages

Publisher Types

Associaçao Progresso, a nonprofit organization, published slightly more than half of all titles surveyed (163 [50 percent]). SIL Moçambique was the other large nonprofit (and a faith-based) producer, with 17 titles (five percent). Plural Editores accounted for all but one of the titles produced by a private commercial publisher, and INDE for all but one of the government-published titles. Together, these four entities produced 86 percent of the titles surveyed (**Figure F-10**).

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[2] More information about Creative Commons and the different types of licenses can be found at http://creativecommons.org/licenses.

Figure F-10. Number of titles by publisher type
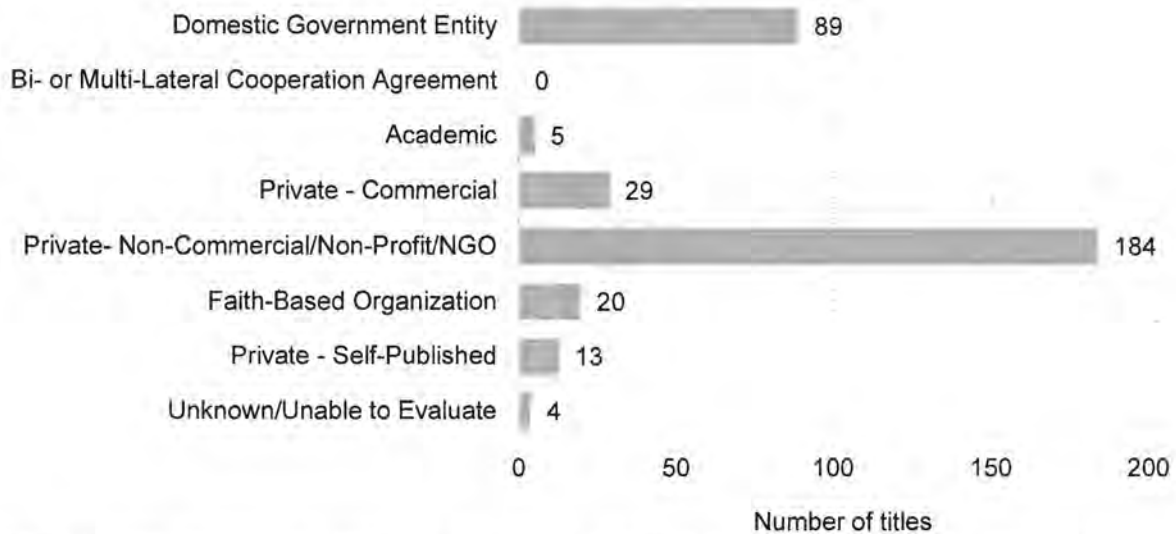
Note: Some titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

As shown in **Figure F-11**, most of the materials (285 [88 percent]) were published within the past 10 years. This expansion in the number of titles is not surprising, given the creation of a bilingual education system in 2003 and its expected expansion to full implementation by 2017. Although 15 titles (five percent) did not have a publication date, 13 of these items (four percent) were drafts that were yet to be finalized.

Figure F-11. Year of publication
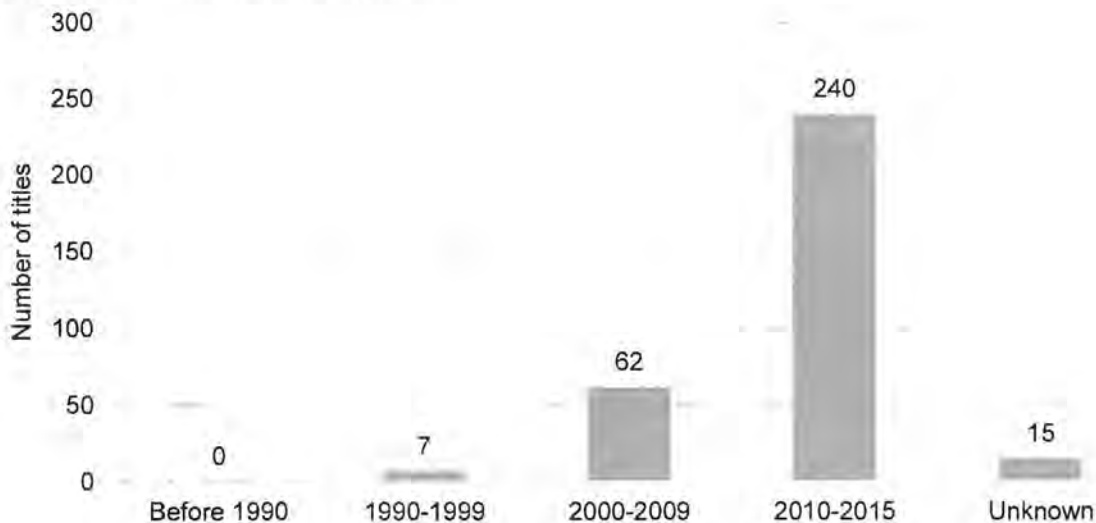
International Standard Book Number

Only 12 (four percent) of the 324 total titles used an International Standard Book Number (ISBN), and nine (three percent) of those came from one (commercial) publisher: Plural Editores. These findings suggest that the use of the ISBN is not widespread in the publication of children's reading materials in Mozambican languages.

Price

The data collectors recorded the price for only 38 titles (12 percent), 12 (four percent) in hard copy and 26 (eight percent) in soft copy, thereby limiting the ability to draw any generalizations from such a small subset. Seven of the hard copies (two percent) and all 26 of the soft copies (eight percent) for which the price was known were available for free.

4. Remarks

The survey findings suggest that the bilingual education policy in Mozambique has encouraged nonprofit organizations to support the development of materials in a number of Mozambican languages. In addition, the Government of Mozambique has supported this effort, producing a number of titles themselves. Most of the titles surveyed appeared to include familiar and appropriate content for young learners. However, if the findings are representative, then there appears to be currently fewer Mozambican language materials available for Primary Grades 1 and 2 than for Primary Grade 3. Given the upcoming policy to transition to local language instruction by 2017, this may constitute a gap in current inventory for early grade reading.

The prevalence of materials from noncommercial entities could be an opportunity to facilitate making materials available at a low cost or for free online, as nonprofit entities often do not have the same commercial interests as for-profit entities. Further research to explore the feasibility of this opportunity in the context of Mozambique would be useful.

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Annex G. Summary of the Early Grade Reading Materials Survey in Nigeria

Geography and Demographics

Size:	923,768 square kilometers (km²)
Population:	182 million (2015)
Capital:	Abuja
Urban:	48% (2015)
Administrative Divisions	36 States + Federal Capital territory
Religion	50% Muslim 40% Christian 10% Traditional

Source: Central Intelligence Agency (2015).
Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 6–11 years):[a]	28 million
Adult (aged >15 years)	60%	69%	50%	2012 Primary School GER:[a]	85%, down from 94% in 1999
Youth (aged 15–24 years)	73%	80%	65%	2012 Pre-primary School GER:[a]	13%, up from 8% in 1999

Sample EGRA Results [b]	Language:	Hausa		Oral Reading Fluency:	Mean: 2.1–6.2 correct words per minute
	When:	2014			74–88% zero scores
	Where:	Jigawa, Kaduna, Kano, Kastina		Reading Comprehension:	0–4% reading with ≥80% comprehension
	Who:	1,259 P3 students			83–93% zero scores

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P3 = Primary Grade 3. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: RTI International (2014).

Language

Number of Living Languages:[a] 520

Major Languages[b]	Estimated Population[c]	Government Recognized Status[d]
English	60 million (L2) (2003)	"Official" language
Pidgin (Nigerian)	30 million (L1 and L2)	LWC, no official status

Hausa	18,500,000 (L1) (1991) 15,000,000 (L2)	"National" language; LWC
Yoruba	18,900,000 (L1) (1993) 2,000,000 (L2)	"National" language; LWC
Igbo	18,000,000 (L1) (1999)	"National" language; LWC
Fulfulde (Central Nigerian)	11,500,000 (2000)	Regional language
Fulfulde (Adamawa)	7,610,000 (1991)	Regional language
Ibibio	1,500,000 (L1) (1998) 4,500,000 (L2) (2013)	Regional language
Kanuri (Central)	3,000,000 (L1) (1985) 500,000 (L2)	Regional language
Tiv	2,210,000 (L1) (1991)	Regional language
Efik	400,000 (L1) (1998) 2,000,000 (L2)	Regional language
Ijaw[e]	1,770,000 (L1)	Regional language
Anaang	1,400,000 (L1) (1991)	Regional language
Ebira	1,000,000 (L1) (1989)	Regional language
Nupe-Nupe-Tako	800,000 (L1) (1990) 200,000 (L2) (1999)	Regional language

Note. L1 = first language; L2 = second language; LWC = language of wider communication.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate International Organization for Standardization (ISO) 639-3 codes are provided in parentheses.
[c] Source: Lewis et al. (2015). The dates for the speaker population estimates vary by language and are provided (when available) in parentheses.
[d] Sources: Adegbija (2004) and Article 55, Section 5 of the Nigerian Constitution.
[e] Listed as Izon in Lewis et al. (2015) and includes approximately 30 mutually intelligible dialects.

Nigeria Findings in Brief:

Nigeria is the most densely multilingual country in Africa. For decades, Nigeria has had an official language in education policy supportive of Nigerian languages as the medium of instruction at the primary level, but implementation lags far behind policy. The study surveyed 364 titles, of which most were textbooks published in "the big three" national languages (i.e., Igbo, Yoruba, and Hausa) by private-sector commercial publishers. Textbook titles outnumbered teacher's guides by a ratio of 31:1. Supplementary reading materials were and tended to be written at a level too difficult for beginning readers. However, the content that does exist appears, for the most part, to be culturally familiar, appropriate, and not obviously biased in terms of gender, ethnicity, or religion.

1. Language in Education Policy in Nigeria

English is the official language in Nigeria, with three large languages of wider communication (i.e., Hausa, Igbo, and Yoruba) sharing special status as "national" languages (Adegbija, 2004; Article 55, Section 5 of the Nigerian Constitution). Nigeria has had a progressive, pro-mother tongue policy for many years. Adopted in 1977 (and later revised in 1981 and 1985), the National Policy on Education stipulates that the language of instruction (LOI) at the pre-primary and early primary level should be the "mother tongue or the language of the immediate environment," with an eventual transition to English. At the secondary school level, English is

the LOI, but each child must also study a Nigerian language as a subject to promote national unity. Every student who completes the Nigerian certificate exam at the end of secondary school (i.e., the West African Examination Council [WAEC]) is required to pass an exam in at least one Nigerian language.[1]

The adoption of this language in education policy was influenced in part by the Six-Year Primary Project in Ile-Ife (Osun State), a large-scale experiment in the 1970s that employed Yoruba as the medium of instruction for all six years of primary school, transitioning to English in secondary school (Adegbija, 2004). The results of extensive evaluations of the project showed that the treatment groups (i.e., those students receiving instruction in Yoruba [their first language]) significantly outperformed the control groups academically, at least in the short term.

In addition, in 1970, the Rivers State Government initiated the Rivers Readers Project (RRP) to produce readers and supporting materials for use in primary schools in as many as possible of the 34 local languages of the state, so that children could initially learn to read in their first language. The components of the project were orthography development, curricula development, the writing and dissemination of language books, and training of language teachers to use the materials in schools. By 1990, 61 books, including primers, supplementary texts, teacher's guides, and dictionaries, were available in 21 languages (Adegbija, 2004), though a contact from the RRP indicated that the project is currently hampered by a lack of funds.

Otherwise, since the 1970s, there has been minimal apparent movement from policy articulation to implementation. Some states, including Osun, Oyo, Rivers, Imo, and more recently Bayelsa, have attempted to promote the use of Nigerian languages as LOI. The Language Development Center of the Nigerian Educational Research and Development Council, which is responsible for coordinating and implementing language issues in the education sector, developed orthographies for 43 Nigerian languages and partnered with the Rivers State Government to develop an additional 15 orthographies.[2] However, according to a United Nations Educational, Scientific, and Cultural Organization (UNESCO) report about the problems of the national education system in Nigeria, few languages are used as the LOI in the formal primary education sector (Adeniyi, 2003). For example, a 2012 study of Primary Grades 1 through 3 classes in 12 primary schools in Lagos State found that 85 percent to 94 percent of science lessons were orally delivered in the first language in the rural schools, and 27 percent to 62 percent in the urban schools, but the study did not specify whether this oral instruction was accompanied by reading or writing in the first language as well (Okebukola et al., 2012). However, a 2011 random sampling of 720 schools (442 urban and 278 rural) from all 36 states revealed that, contrary to the policy, English was most widely used as the LOI in pre-primary and Primary Grades 1

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[1] WAEC's Web site (http://www.waecnigeria.org) mentions only "a Nigerian language," not necessarily one of the so-called "big three" national languages. However, for a long time, the exam offerings have been limited to the big three languages, and, therefore, those are the options offered most often in the secondary schools. Some states offer other options in some of their schools, such as the Efik and Urhobo languages in Cross Rivers and Delta States; however, this is relatively rare.

[2] The Language Development Center was contacted and visited during the course of the fieldwork, but copies of any of the materials reportedly published were not available.

through 6 and that there was no significant difference between urban versus rural schools (Duze, 2011). The study also revealed that written materials supporting instruction in Nigerian languages were not available in schools and that the teachers were not trained to teach in them. The study cited the major constraints to implementing the language policy as inadequate funding; a lack of buy-in by students, parents, and teachers; and a lack of textbooks, teaching aids, and pre- and in-service teacher training.

In short, it appears that, contrary to the official policy, in practice, the "mother tongue or the language of the immediate environment" is rarely used as the LOI in both oral and written communication at the pre-primary and early primary levels.

2. Data Collection

The fieldwork in Nigeria took data collectors to the cities of Bauchi, Bukuru, Jos, Kaduna, Kano, and Zaria in the North; Enugu, Onitsha, Owerri, and Yenagoa in the Southeast and South-South; and Ibadan, Ilesha, Lagos, and Otta in the Southwest. The data collectors surveyed 364 titles, including 76 (21 percent) from the North, 108 (30 percent) from the Southwest, and 134 (37 percent) from the Southeast and South-South. The largest number of titles came from publishers (150 [41 percent]) and bookshops (131 [36 percent]).

The data collectors encountered a few challenges in obtaining materials. The delicate security situation in the North and activities for the upcoming elections made it challenging to schedule stakeholder visits in the region. The data collectors did not reach some regions (e.g., Borno and Adamawa States) because of the heightened level of insecurity. Long travel times because of the distance, congested traffic, and numerous checkpoints between sites also slowed data collection.

3. Findings

A. Availability of Materials for Early Grade Reading in Nigerian Languages

Materials by Language

The data collectors surveyed a total of 364 titles in eight languages: six Nigerian and two European (English and French), as listed in **Table G-1**.

The largest numbers of titles were encountered in "the big three" national languages: Igbo, Yoruba, and Hausa. However, the low level of representation of Nigeria's 500 other languages is striking, especially given that the language in education policy is, at least in principle, favorable to the use of regional languages, and even the "mother tongue." Languages with more than one million speakers in which no materials were encountered include the following: Anaang (spoken in the Southeast), Ebira (Kogi State), Edo (Edo State), Efik (Cross Rivers State), Ibibio (Akwa Ibom State), Kanuri (Northeast), Nupe-Nupe-Tako (Niger State), and Tiv (Southeast). Although the data collectors found nine titles in Ijaw (also known as Izon, a language of Bayelsa State, formerly part of Rivers State), they were unable to locate any of the materials produced in the 20 other languages of Rivers State by the RRP. These materials and others may still exist and may even be used in some places, especially titles in Efik, Ibibio, Ebira, and Tiv. The data collectors were

unable to visit the states most likely to have them, but they were also unable to uncover any specific leads to them, despite extensive inquiries, which suggests that the availability of the titles is, at best, limited.

In addition, the data collectors did not log any materials in Nigerian Pidgin English, which is reportedly used by 30 million speakers in informal settings, especially in the southern, coastal, and urban areas, but which suffers from very low social prestige, considered by most to be nothing more than "broken English" (Adegbija, 2004). In addition, the unknown status and possible absence of materials in the hundreds of other Nigerian languages, some of which have more than one million speakers themselves and are used as regional languages of wider communication, constitutes a challenge for the full implementation of the official language in education policy.

Although English enjoys official status in Nigeria, and numerous materials exist in English, they were not targeted because the focus of the study was on Nigerian language materials. The data collectors considered the materials in English only if the titles were bilingual with a Nigerian language or in a shell book (i.e., a book intended and authorized for adaptation and/or translation into other languages). In addition, French appeared in six shell books.

Out of the 364 titles surveyed, 328 (90 percent) were monolingual and 36 (10 percent) were bilingual. All of the titles were written a Latin-based script. Although Hausa is also written in Ajami script (derived from Arabic script), the data collectors did not encounter any materials in Ajami that were intended for children.

The data collectors recorded whether a title used a standard or outdated orthography, if known. All of the titles in Yoruba, Igbo, and Hausa appeared to use the standard orthography, although a closer examination of each title might still reveal minor discrepancies. The quality of the orthography used in the Fulfulde and Ijaw titles was marked as "unknown."

Table G-1. Languages in Which Materials Were Found in Nigeria

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Nigeria[c]	Titles per Language	Percentage of Titles Surveyed[d]
1.	Igbo	ibo	18,000,000 (1999)	126	34.6%
2	Yoruba	yor	18,9000,000 (L1) (1993) 2,000,000 (L2)	107	29.4%
3	Hausa	hau	18,500,000 (L1) (1991) 15,000,000 (L2)	91	25.0%
4	English[e]	eng	Not applicable	45	12.4%
5	Fulfulde (Adamawa)	fub	7,610,000 (1991)	11	3.0%
6	Ijaw[f]	ijc	1,770,000	9	2.5%
7	French[e]	fra	Not applicable	6	1.6%
8	Fulfulde (Central)	fuv	11,500,000 (2000)	5	1.4%

[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate

International Organization for Standardization (ISO) 639-3 codes are provided in parentheses.
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al. (2015). The dates for the speaker population estimates vary by language and are provided (when available) in parentheses. Other sources of data may provide different estimates.
[d] Due to bilingual titles, the total will surpass 100%.
[e] The English and French titles were bilingual with a Nigerian language or were "shell" books.
[f] Listed as Izon in Lewis et al. (2015) and includes about 30 mutually intelligible dialects.

Types of Materials

Table G-2 details the types of materials found by language. Key observations include the following:

- Of the 364 titles surveyed, 292 titles (80 percent) were textbooks or related materials, and 72 were non-textbook titles (20 percent). Nigeria had the lowest number of non-textbooks across all 11 countries in the study and were fewer than half of the next lowest country.

- The data collectors did not find any supplementary non-textbook titles in Yoruba, one of the "big three" national languages.

- Of the 292 titles that were textbooks or related materials, 250 (86 percent) were student literacy textbooks or primers. Of the 72 non-textbook titles, most (54 [75 percent]) were narrative.

- Only eight literacy teacher's guides were encountered, making the ratio of student textbooks to teacher's guides (titles, not copies) approximately 31:1. This means that most textbooks lack an accompanying teacher's guide.

- Student literacy workbooks were also relatively rare (34 titles [12 percent of textbook related-titles]), and Igbo had twice as many workbooks (18) as any other language.

- Very few titles were informational (e.g., nonfiction), reference, poetry, songs, riddles, proverbs, or similar. The only informational texts surveyed were three English shell books, and the only reference materials were bilingual dictionaries in Igbo-English.[3]

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[3] Many reference materials are known to exist for Nigerian languages, such as Efik, Hausa, Fulfulde, Kanuri, Nigerian Pidgin, Yoruba, and potentially others, because they are advertised on international commercial bookseller Web sites such as Amazon.com, but they were not encountered by the field data collectors during the course of the study.

Table G-2. Number of Different Types of Materials Identified, by Language

Language(s)[a]	Textbook-Related					Supplementary/Non-textbook							
	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
English	—	—	—	0	0%	10	3	—	—	13	3.6%	13	3.6%
French	—	—	—	0	0%	3	—	—	—	3	0.8%	3	0.8%
French-English	—	—	—	0	0%	3	—	—	—	3	0.8%	3	0.8%
Fulfulde (Adamawa)	4	—	1	5	1.4%	4	—	—	—	4	1.1%	9	2.5%
Fulfulde (Adamawa)-English	—	—	—	0	0%	3	—	—	—	3	0.8%	3	0.8%
Fulfulde (Central)	3	—	1	4	1.1%	—	—	—	—	0	0%	4	1.1%
Hausa	55	7	5	67	18.4%	15	—	—	—	15	4.1%	82	22.5%
Hausa-English	1	—	—	1	0.3%	6	—	—	—	6	1.6%	7	1.9%
Igbo	80	17	—	97	26.6%	9	—	—	8	17	4.7%	114	31.3%
Igbo-English	4	1	—	5	1.4%	—	—	6	—	6	1.6%	11	1.4%
Ijaw	6	—	—	6	1.6%	—	—	—	—	0	0%	6	1.6%
Ijaw-English	1	—	—	1	0.3%	1	—	—	1	2	0.5%	3	0.8%
Yoruba	92	9	—	101	27.7%	—	—	—	—	0	0%	101	27.7%
Yoruba-English	4	—	1	5	1.4%	—	—	—	—	0	0%	5	1.4%
Total	250	34	8	292	80.2%	54	3	6	9	72	19.8%	364	100%

Note: Percentages may not sum exactly to 100% due to rounding.

[a] Languages are presented in alphabetical order. Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate International Organization for Standardization (ISO) 639-3 codes are provided in parentheses.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The data collectors analyzed the 292 literacy textbook-related materials with regard to their pedagogical components. The most common components were vocabulary development and/or exercises and reading passages (**Figure G-1**), each appearing in 230 titles (79 percent) of the textbook-related titles. Slightly fewer titles (203 [70 percent]) contained accompanying comprehension questions. Most materials (203 [70 percent]) used what could be construed as a phonics approach to reading instruction.[4]

Figure G-1. Pedagogical components in textbook-related materials
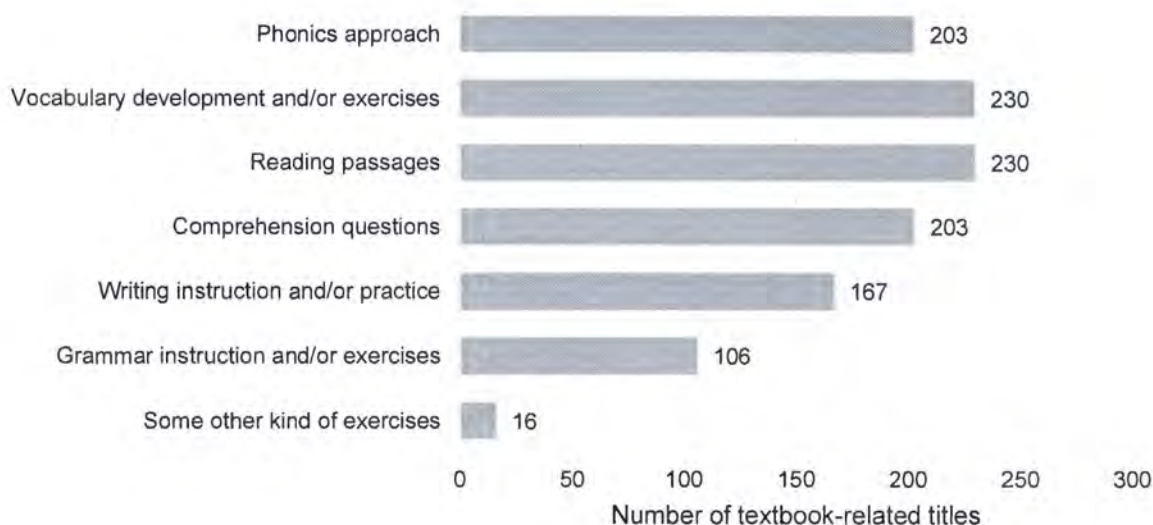
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Out of the 292 textbook-related materials, 238 (82 percent) were explicitly labeled by the publisher for a specific grade level in the formal education system, with the highest numbers concentrated in Primary Grades 1 and 2, and the lowest for preschool and kindergarten (**Figure G-2**). The grade level labels were taken at face value, and the contents of each book were not evaluated against the requirements of the national curriculum for that grade level.

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[4] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

Figure G-2. Publisher-designated levels for textbook-related materials
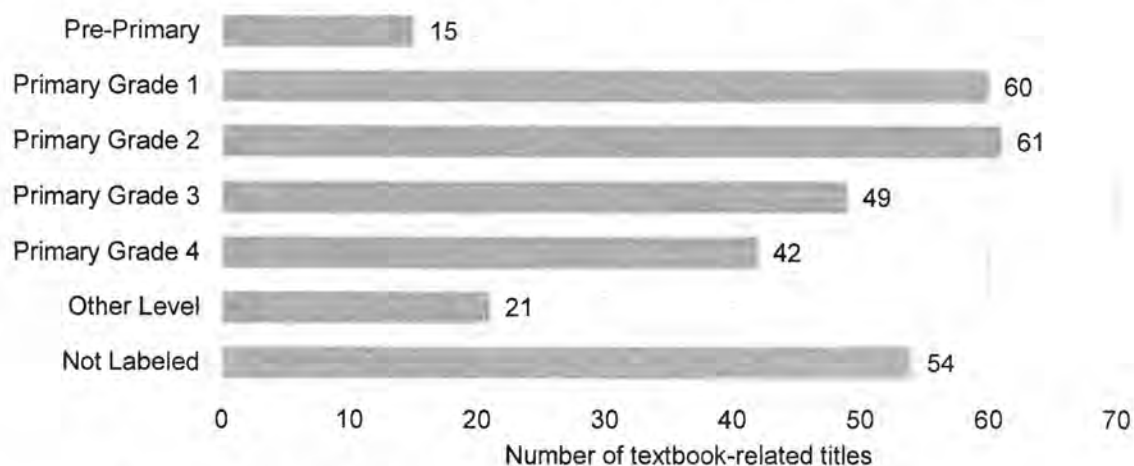
Note: Multiple responses per title were possible.

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this count for 56 narrative and informational texts.

As shown in **Figure G-3**, although there were few supplementary titles overall, there were even fewer available for early stages of literacy development: none for the earliest stage (1–10 wpp) and very few at the next level up (11–25 wpp). The largest category of supplementary titles (17 titles [30 percent]) featured more than 75 wpp, which is relatively difficult for beginning readers.

Figure G-3. Number of narrative and informational non-textbook titles by maximum words per page
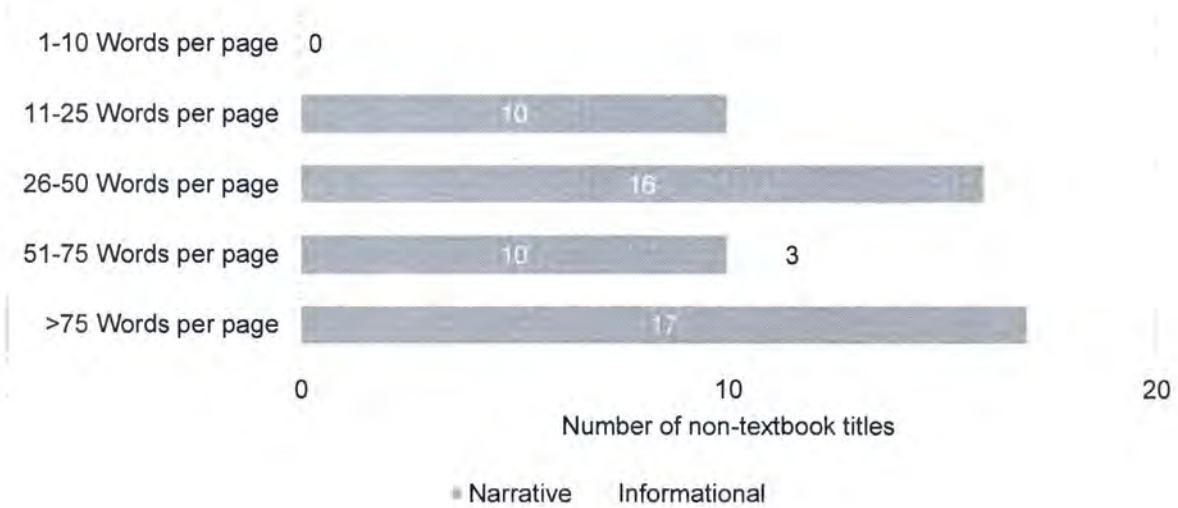
1-10 Words per page	0
11-25 Words per page	10
26-50 Words per page	16
51-75 Words per page	10 3
>75 Words per page	17

Number of non-textbook titles

0   10   20

■ Narrative   Informational

Note: This calculation was not performed for poetry or reference titles.

Illustrations

Out of the 364 titles surveyed, 333 (91 percent) were illustrated. The most common types of illustrations were in all black and white or grayscale, appearing in 165 titles (45 percent); 116 (32 percent) of the titles were illustrated in full color (**Figure G-4**). The 31 (nine percent) nonillustrated titles were mostly student workbooks (14 [45 percent]), teacher's guides (five [16 percent]), and reference books (three [10 percent]).

Figure G-4. Presence and type of illustrations

Is the book illustrated?

No, 9%

Yes, all B&W and/or grayscale, 45%

Yes, all color, 32%

Yes, some B&W and some color, 14%
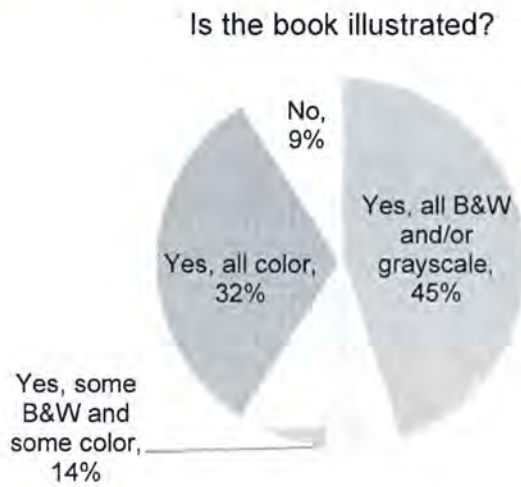
Content Themes

The data collectors examined 350 of the titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts and illustrations and identified the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure G-5**.

The most common theme was culture, appearing in 240 titles (69 percent), followed by education/school (199 [57 percent]), animals (191 [55 percent]), and morals/values (187 [53 percent]). The least common themes in the surveyed titles in Nigeria included energy (three [one percent]), science (eight [two percent]), biography (nine [three percent]), and technology (10 [three percent]).

Out of the 350 titles examined for content themes, the data collectors determined that only 24 titles (seven percent) contained explicitly religious content. That content was split almost evenly between Christianity (15 titles [63 percent]) and Islam (17 titles [71 percent]); five titles (21 percent) featured elements from or common to both religions.

Figure G-5. Content themes

Theme	Number of titles
Adventure	23
Agriculture	99
Alphabet	156
Animals	191
Biography	9
Business	32
Careers/Professions/Jobs/Work	47
Colors or Shapes	27
Community	80
Culture	240
Education/School	199
Environment	98
Energy	3
Family	181
Food/Nutrition	120
Friendship	68
Health/Personal Hygiene	124
Human Body	77
History	13
Holidays/Celebrations	24
Home Life	112
How-to/Skill Development	39
Humor	55
Media	25
Morals/Values	187
Numeracy/Counting/Math	150
Peace/Justice/Equality/Human Rights	11
Plants	70
Religion	24
Safety	23
Social Studies/Civic Education	53
Science	8
Technology	10
Travel/Transportation	89
Weather	55

Number of titles

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 350 titles for the familiarity of the content for the target audience, (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. The data collectors judged 333 titles

(95 percent) as containing "very familiar" content, 12 (three percent) as containing "semi-familiar," and only four (one percent) as containing "mostly unfamiliar" content for the target audience.

The data collectors reviewed the illustrations of the same 350 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, or other known cultural taboos (**Figure G-6**). The data collectors did not identify any potentially sensitive content for most of the titles evaluated for this item (i.e., 295 titles [84 percent]). The most common type of content flagged for its potentially sensitive nature was a traumatic event, which was found in 47 (13 percent) of the titles evaluated. The other categories were relatively rare, occurring in fewer than 10 titles each.

Figure G-6. Potentially sensitive content in the illustrations
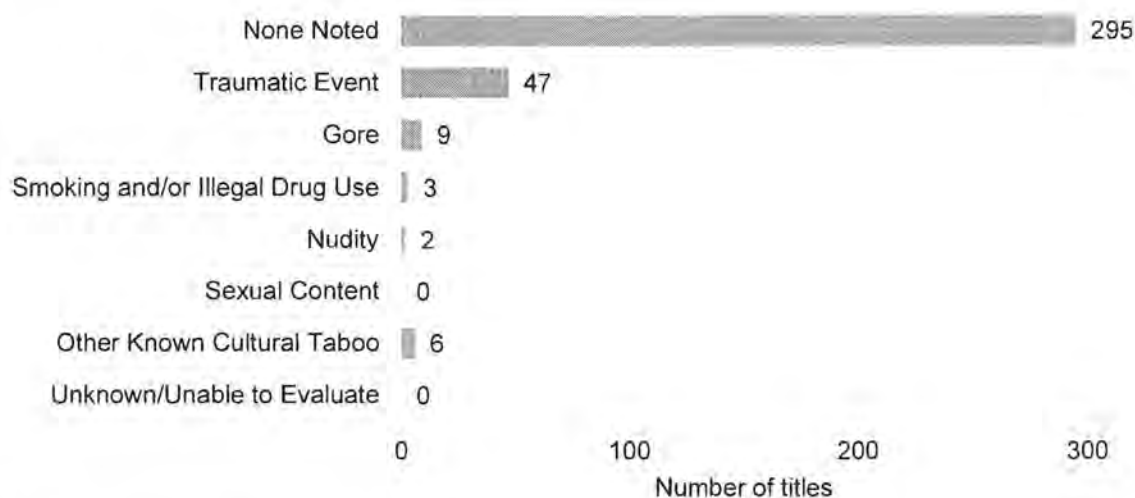
	Number of titles
None Noted	295
Traumatic Event	47
Gore	9
Smoking and/or Illegal Drug Use	3
Nudity	2
Sexual Content	0
Other Known Cultural Taboo	6
Unknown/Unable to Evaluate	0

Note: Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of 226 titles regarding the frequency and equality of representation of people in the illustrations according to gender, ethnic or religious group identity, and disability. The data collectors did not evaluate all titles for these questions; exclusions included teacher's guides, reference materials, and titles not illustrated with humans or anthropomorphic animals.

Gender

The data collectors examined the illustrations in 226 titles for the frequency of representation of each gender and determined that gender was not apparent in 15 titles (seven percent), further reducing the subset for this item to 211 titles. The data collectors judged that there was an overall balance of both genders in 193 of the titles (91 percent; **Figure G-7**). Male characters dominated the illustrations in 14 titles (seven percent), and female characters appeared in four (two percent).

In addition, for 209 titles, the data collectors evaluated whether the illustrations portrayed male and female characters with "equal skills, knowledge, accomplishments, or roles." The data collectors judged that the male and female characters were portrayed comparably in 185 (89 percent) of these titles, and unequally in only seven (three percent) of these titles. Of the remaining 17 titles (eight percent), data collectors considered that there was an insufficient basis for comparison.

Figure G-7. Frequency of gender representation in the illustrations
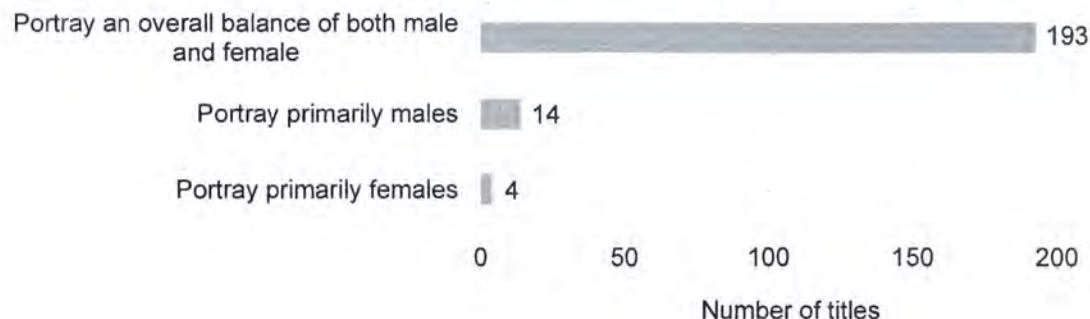
	Number of titles
Portray an overall balance of both male and female	193
Portray primarily males	14
Portray primarily females	4

Ethnic and Religious Group Identity

Similarly to gender, the data collectors examined the illustrations of 226 titles for the frequency of representation of different ethnic or religious group members. Of those titles, the data collectors judged that 182 of the titles (81 percent) did not portray characters with obvious ethnic or religious group identity markers. The data collectors determined that 13 titles (30 percent) portrayed two or more ethnic or religious groups proportionally to their presence in the local population and that five (11 percent) portrayed one group to the exclusion of another group (**Figure G-8**). In addition, 15 titles (34 percent) were judged to portray exclusively one ethnic or religious group, but in cases where the data collectors judged that the target population was composed overwhelmingly of that group.

For the overwhelming majority of titles, the data collectors judged that there was insufficient basis for comparing the nature of the portrayal, if any, of ethnic or religious groups in the illustrations. The data collectors evaluated only 21 titles for the question of whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles." Of those, the data collectors judged that 19 titles (90 percent) portrayed the different groups comparably and that two (10 percent) portrayed them unequally.

Figure G-8. Frequency of ethnic and religious group representation in the illustrations

	Number of titles
No ethnic or religious group identity is evident in the illustrations.	182
The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population.	13
The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group.	15
The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population.	5

Disability

The data collectors also examined how often people with disabilities were represented in the illustrations of 226 titles. Overwhelmingly, the materials surveyed lacked any illustrations of people with any type of disability; they appeared in just three titles (one percent). However, the data collectors judged all three titles as portraying people with disabilities "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

Out of the 364 titles examined, 339 (93 percent) contained a copyright symbol. Regarding the restrictions or permissions for reuse, 272 titles (75 percent) contained an explicit statement along the lines of "All Rights Reserved," 42 titles (12 percent) explicitly granted some permissions for reuse (all with a Creative Commons license), and the remaining 49 titles (13 percent) did not contain any explicit statements. The 42 titles with a Creative Commons license were all from the same source (the STudents Empowered through Language, Literacy, and ARithmetic [STELLAR] literacy program of the American University of Nigeria); therefore, Creative Commons is not widely used in Nigeria.

Medium

Most of the books (321 [88 percent]) were hard copies; 47 books (13 percent) were soft copies. Of these copies, four books (one percent) were available in both media.

D. Landscape of the Production of Children's Reading Materials in Nigerian Languages

Publisher Types

Figure G-9 shows the number of titles published by each type of organization. By far, the highest number of titles (297 [82 percent]) were collected from commercial publishers. The data collectors found 11 titles (three percent) published by the Universal Basic Education Commission, a government entity, and four titles (one percent) published through a bilateral cooperation agreement with the U.S. Agency for International Development. The academic entities were the Niger Delta University Publishers, Ltd., which is counted under the commercial publishers, and the STELLAR literacy initiative of the American University of Nigeria, which is also counted as a nonprofit organization. Besides STELLAR, the only other nonprofit initiative to provide materials was the Fulfulde Literacy Promotion Project.

Faith-based organizations did not provide any of the materials (Figure G-9). The data collectors reported that although churches and Islamic organizations produce materials in Nigerian languages, these titles are targeted for adults. Because of logistical constraints, the data collectors did not survey these materials. Additional research may be desirable to determine how much of the inventory not surveyed could be adapted for use with children.

Figure G-9. Number of titles by publisher type
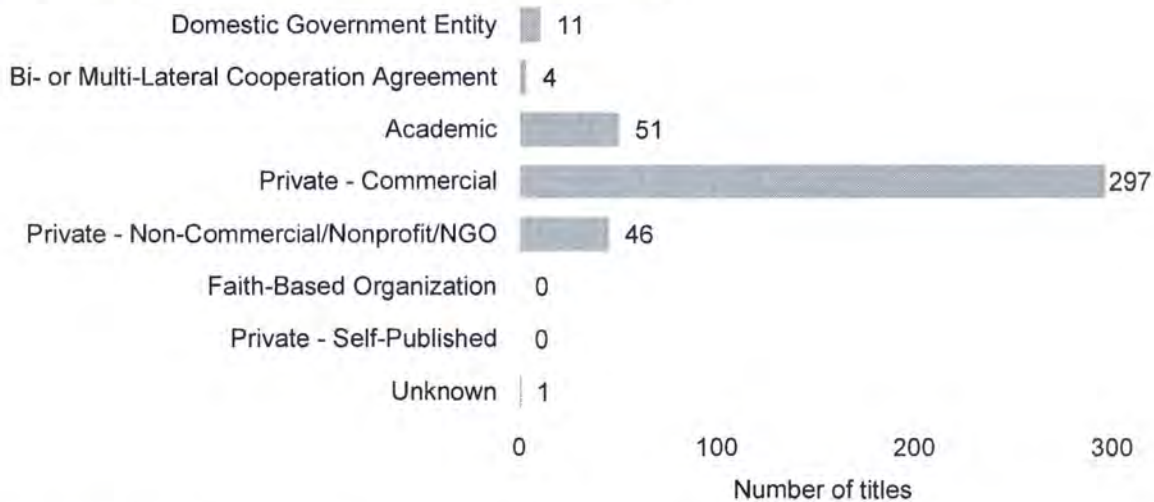
Publisher type	Number of titles
Domestic Government Entity	11
Bi- or Multi-Lateral Cooperation Agreement	4
Academic	51
Private - Commercial	297
Private - Non-Commercial/Nonprofit/NGO	46
Faith-Based Organization	0
Private - Self-Published	0
Unknown	1

Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

Most of the titles found were fairly recent, having been published in the past five years. Despite significant effort devoted to developing Nigerian language materials in the 1970s and 1980s, the data collectors found only 15 titles with publication dates before 1990 (**Figure G-10**).

Figure G-10. Year of publication

Bar chart — X-axis: Year of publication categories; Y-axis: Number of titles (0 to 250)

Category	Number of titles
Before 1950	0
1950–1959	1
1960–1969	1
1970–1979	5
1980–1989	8
1990–1999	18
2000–2009	113
2010–2015	212
Unknown	6
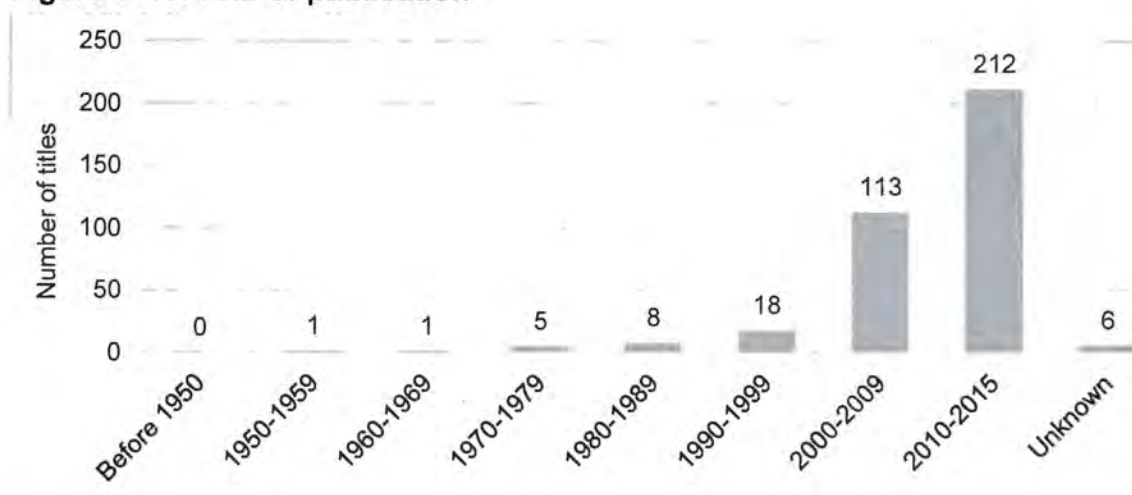
International Standard Book Number

Most books (289 [79 percent]) had an International Standard Book Number (ISBN). This finding indicates that the use of ISBN is fairly common in Nigeria and may be related to the relatively high percentage of books published by commercial publishers.

Price

The data collectors recorded the price for 285 of the titles available in hard copy, of which 19 (seven percent) were free (**Table G-3**). For specific types of books such as teacher's guides and non-textbooks, price data were available for only a few titles each, so caution should be used when extrapolating generalizations about average price, if at all.

For the titles available in soft copy, 46 (98 percent) of them were recorded as free; for one title (two percent), the price was unknown.

Table G-3. Price of Hard-Copy Materials by Book Type

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Textbook-Related				
Student textbook	16	216	$2.20	$0.00–6.00
Student workbook	0	33	$1.52	$0.25–5.00
Teacher's guide	3	5	$1.07	$0.00–2.50
Non-textbook				
Narrative	0	8	$1.16	$0.75–2.50
Informational	0	0	Not applicable	—

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Reference	0	1	$3.00	$3.00–3.00
Poetry, etc.	0	3	$1.25	$1.00–1.50
All titles	**19**	**266**	**$2.06**	**$0.00–6.00**

[a] The exchange rate was 1 Nigerian Naira (NGN) = 0.0050 U.S. dollars (USD).

4. Remarks

The market for Nigerian language reading materials seems to be driven primarily by curriculum requirements from the state ministries of education and the national exams. Although the current study focused on materials targeting the kindergarten through Primary Grade 3 level, the data collectors reported encountering mostly textbooks aimed at upper primary- and secondary-level students for whom a Nigerian language (usually Hausa, Igbo, or Yoruba) is a compulsory subject appearing on the national exam at the end of secondary school. Those materials are geared toward the study of each language as a subject rather than toward initial literacy instruction or the use of the language as a medium of instruction for other content areas. In contrast, no compulsory examinations are administered in Nigerian languages at the end of the primary education cycle. Implementation of the official language in education policy may be less rigorous at that level as a result. The publishers, for their part, may prefer to produce materials for which there is a well-established demand.

During the course of the field research, the data collectors encountered a few private publishers that were involved in publishing materials in Nigerian languages. The publishers reported having to contend with two challenges: underwhelming demand and piracy in the Nigerian book market. Almost all of the publishers contacted, both large and small, alluded to the very real challenge of piracy and how it has negatively impacted investments in publishing in general. In fact, almost universally, the intentions of the data collectors were first met with suspicion by private publishers due to piracy concerns.

During the survey, the data collectors found that a few of the booksellers stocked mainly pirated books; many booksellers stocked authentic, legal copies alongside pirated copies. Illegal copies are cheaper; therefore, they are potentially more attractive to buyers on a low budget. Whether booksellers stock illegal copies intentionally or unknowingly is unclear. The data collectors discovered a few of the materials surveyed to be illegal copies only after the originals were purchased from a trusted publishing house. This discovery highlights the challenges that even well-intentioned booksellers and purchasers face in identifying legal copies. Many authors and medium- and small-sized publishers do not put their books in bookstores as a way of protecting their content from piracy. When they do, they reported being very selective regarding where their books are stocked. This self-preserving measure negatively impacts availability and access to these books.

The data collectors reported the general conviction that there may be more Nigerian language materials available than they were unable to locate despite their efforts. Therefore, the data collected should not be considered necessarily comprehensive or even representative of the entire country, although the data are useful when considering the languages and regions covered.

When considering initiatives for the future development of materials, it may be desirable to direct attention to the gaps in the inventory highlighted by the survey. These gaps include a lack of supplementary reading materials in general, especially those appropriate for the earliest stages of reading development. Teacher's guides to accompany textbooks also appear to be in short supply. Most striking of all, however, may be the large number of languages in which no materials were found at all, given both Nigeria's high linguistic diversity and a language in education policy that is, in principle, supportive of the use of multiple Nigerian languages in early primary grades.

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Annex H. Summary of the Early Grade Reading Materials Survey in Senegal

Geography and Demographics

Size:	196,722 square kilometers (km²)
Population:	14 million (2015)
Capital:	Dakar
Urban:	44% (2015)
Administrative Divisions:	14 regions
Religion:	95% Muslim 4% Christian 1% Traditional

Source: Central Intelligence Agency (2015).

Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 7–12 years):[a]	2.2 million
Adult (aged >15 years)	56%	68%	44%	2013 Primary School GER:[a]	84%, up from 65% in 1999
Youth (aged 15–24 years)	70%	76%	64%	2013 Pre-primary School GER:[a]	15%, up from 3% in 1999

Sample EGRA Results[b]	Language:	French		Mean: 18.4 correct words per minute
	When:	2009	Oral Reading Fluency:	Standard deviation: 20.6
	Where:	11 regions		18% zero scores
	Who:	687 P3 students	Reading Comprehension:	11% reading with ≥60% comprehension
				52% zero scores

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P3 = Primary Grade 3. Percentages are rounded.

[a] Source: UNESCO (2015).
[b] Source: Pouezevara et al. (2010).

Language

Number of Living Languages:[a] 210

Major Languages[b]	Estimated Population[c]	Government Recognized Status[d]

French	47,000 (L1) (2015) 3.9 million (L2) (2013)	"Official" language
Wolof	5.2 million (L1) (2015)	"National" language de facto largest LWC
Pulaar	3.5 million (L1) (2015)	"National" language
Serer-Sine	1.4 million (L1) (2015)	"National" language
Maninkakan (i.e., Malinké)	1.3 million (L1) (2015)	"National" language
Soninke	281,000 (L1) (2015)	"National" language
Jola-Fonyi (i.e., Diola)	340,000 (L1)	"National" language
Balant, Bayot, Guñuun, Hassanya, Jalunga, Kanjaad, Laalaa, Mandinka, Manjaaku, Mankaañ, Mënik, Ndut, Noon, Oniyan, Paloor, and Saafi-Saafi	—	"National" languages

Note: L1 = first language; L2 = second language; LWC = language of wider communication.
ᵃ Source: Lewis et al. (2015).
ᵇ Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
ᶜ Source: Lewis et al. (2015). The dates for the speaker population estimates vary by language and are provided (when available) in parentheses.
ᵈ Source: Article 1, Section 1 of the Republic of Senegal Constitution; RTI International (2015).

Senegal Findings in Brief:

The Government of Senegal has supported the use of national languages in education in experimental programs and may be moving toward a more explicit policy prescribing bilingual education at the early primary level. The study surveyed 460 titles in Senegal. The inventories for each language were not necessarily proportional to the language group size because some of the larger languages had few or no titles, whereas some of the smaller languages had many. Most of the surveyed titles (85 percent) were copyrighted, with only 14 (three percent) granting permissions for reuse under specific conditions. The Senegalese data were exceptional with the striking dominance of nongovernmental organization publishers (409 titles [89 percent]). However, similar to other countries in the survey, the Senegalese materials were characterized by a greater number of supplementary materials than textbook-related (at a slightly more than 2:1 ratio), with student textbooks and narrative texts the most numerous in each category. The results of the study also revealed a high percentage of supplementary texts with greater than 75 words per page, and a low incidence of potentially sensitive content or gender and ethnic/religious imbalance. In addition, people with disabilities were rarely featured. The Senegalese inventory was fairly recent, with 253 titles (55 percent) having been

1. Language in Education Policy in Senegal

Article 1, Section 1 of the 2001 Constitution of the Republic of Senegal assigns official language status to French and "national" language status to Diola (Jola-Fonyi), Malinke, Pulaar, Serer, Soninke, Wolof, "and any other national language [that] has been codified." Codification is a lengthy and rigorous process whereby a language's orthography is developed and standardized, its grammar is analyzed and documented, it obtains official status as a "national" language on equal footing with all other national languages, and it is sanctioned for use in the media, courts,

and schools. As of 2015, 22 languages in Senegal had been codified, including Balant, Bayot, Guñuun, Hassanya, Jalunga, Joola, Kanjaad, Laalaa, Mandinka, Manjaaku, Mankaañ, Mënik, Ndut, Noon, Oniyan, Paloor, Pulaar, Sooninke, Saafi-Saafi, Seereer, and Wolof (RTI International, 2015; Bathily Toure and Badiane, personal communication, December 10, 2015).

An explicit policy does not exist in Senegal regarding the use of languages in education, though as of this writing, a government working group is in the process of finalizing a proposal for a new official policy (A. Niang, personal communication, December 16, 2015). Several official documents have been favorable to the use of national languages in education, including the following:

- Article 22, Section 1 of the Constitution of the Republic of Senegal, which compels all institutions to develop literacy in the national languages.

- The *Lettre de politique générale pour le secteur de l'éducation et la formation (General Policy Letter for the Education and Training Sector)*, which promotes the gradual development of the use of national languages in the education system (Government of Senegal, 2013).

- The Assises de l'Education du Sénégal (2014; the Annual Conference on Education of Senegal), which supports the use of national languages as integral to a successful school.

The government has supported several experimental projects in bilingual education that use French and one of six codified national languages. The largest project was implemented in 465 classrooms between 2002 and 2008 (RTI International, 2015). An evaluation of this program found that its effectiveness was hampered by poor execution and a lack of quality materials in the national languages (Couralet, 2009). Since then, the government has partnered with Ecole et Langues Nationales en Afrique (ELAN, Education in African Languages), the United Nations Educational, Scientific, and Cultural Organization (UNESCO), and the Organisation Internationale de la Francophonie (OIF, International Organisation of the Francophonie) in a program that uses national languages and French in 30 classrooms.

In addition, some nongovernmental organizations (NGOs) and faith-based organizations (FBOs) have developed bilingual education programs with the consent of the Ministry of Education (MOE). One example is a program by the NGO Associates in Research and Education for Development (ARED) currently operating in more than 200 classrooms in French and Wolof or Pulaar (M. Ly, personal communication, December 15, 2015). Another example is Education Multi-Langue (EMiLe), which uses French and Serer-Sine in 12 public or Catholic schools and is operated by the Office National des Examens et Concours du Superieur (ONECS, National Office of the Catholic Teaching of Senegal) with support from SIL Senegal. Moreover, some NGOs, such as Tostan, which is focused on community empowerment, have performed extensive work in adult literacy in national languages. All of these NGOs have developed their own instructional materials (RTI International, 2015).

Outside of these relatively isolated efforts, French remains as the primary language of instruction (LOI) in the formal education sector, and the official curriculum provides only for French beginning from Primary Grade 1 (Leclerc, 2015; RTI International, 2015; DeStefano et al.,

2009). A 2009 study based on classroom observations in 50 schools in 11 regions found that teachers used French as the LOI more than 95 percent of the time (Varly, 2010).

Although a variety of languages are spoken in each region, individual schools typically have only one predominant language used by children in and out of school. This language is usually Wolof in multilingual or urban environments and a smaller regional language is used in rural settings. However, literacy campaigns in Wolof among nonnative speakers have met with some resistance because the dominance of Wolof is perceived as a threat to the other languages that have, in principle, the same legal status and rights (Fall, 2014).

2. Data Collection

During the planning stage, it was confirmed that any materials carried by publishers' subsidiaries located outside the capital could also be accessed within the capital, thereby making visits to these subsidiaries unnecessary, with rare exceptions. A total of 460 titles were surveyed, mostly in Dakar. The data collectors obtained an overwhelming majority of books (437 [95 percent]) from the publishers, most often at the offices of FBOs with well-maintained libraries.

3. Findings

A. Availability of Materials for Early Grade Reading in Senegalese Languages

Materials by Language

In Senegal, 460 titles were surveyed in 18 known Senegalese languages and two European languages (French and English). **Table H-1** shows the number of titles surveyed by language.

The data collectors found the greatest number of titles (122 [27 percent]) in Serer-Sine, with an estimated 1.4 million first language speakers and the third largest language group after Wolof and Pulaar. Most of the titles in Serer-Sine were produced by a single publisher for the EMiLe bilingual program.

French had the second highest number of titles (101 [22 percent]). As previously mentioned, French enjoys official status in Senegal, and numerous materials exist in French that were not surveyed because the focus of the study was on Senegalese language materials. Materials in French were considered only if they were bilingual with a Senegalese language or, in rare cases (N = 3), teacher's guides for a mother tongue literacy program.

Wolof and Pulaar, the two largest language groups in Senegal, had the second and fourth most titles (not counting French), respectively. Together, the Serer-Sine, Wolof, and Pulaar materials accounted for 216 (47 percent) of the titles surveyed. However, the data collectors did not find any titles in Maninkakan (also called Malinké), the fourth largest national language, whereas some very small languages had numerous titles, such as Kuwaataay (37 [eight percent]), Bandial (31 [seven percent]), and Karon (21 [five percent]). The disproportion between inventory size and language speaker population is in part because SIL Senegal, a particularly prolific NGO producer of materials, is mostly active in smaller languages. According to the SIL Senegal Literacy Coordinator from 1997–2010, SIL Senegal has intentionally avoided involvement in

both Wolof and Pulaar so as to not create a counterproductively competitive environment with other publishers.

Out of the 460 titles surveyed, 360 (78 percent) were monolingual, 91 (20 percent) were bilingual (most often with French), and nine (two percent) were multilingual (three or more languages). All of the titles surveyed were written in Latin script modified for the particular linguistic characteristics of each language. Some materials are written in Arabic-derived scripts (e.g., Ajami, Wolofal). These materials were not included in this survey because they targeted adult readers.

No titles were flagged as having out-of-date orthographies, most likely because of the rigorous codification process. Of the monolingual books, 280 (61 percent), including those in Wolof and the Jola languages, used diacritics (e.g., é, ó, ë) to mark vowel quality. None of the Senegalese languages use diacritics to mark tone; in fact, only the Tenda language group (i.e., Oniyan, Badyara, Wamey, and Menik) in the Southeast is tonal, but tone is not indicated in the standardized orthographies.

Table H-1. Languages in Which Materials Were Found in Senegal

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Senegal[c]	Titles per Language	Percentage of Titles Surveyed[d]
1	Serer-Sine	srr	1,130,000	122	26.5%
2	French[e]	fra	1,150,000[f]	101	22.0%
3	Wolof	wol	5,210,000	57	12.4%
4	Kuwaataay	cwt	7,200	37	8.0%
5	Pulaar	fuc	2,740,000	35	7.6%
6	Saafi-Saafi	sav	200,000	34	7.4%
7	Bandial	bqj	11,200	32	7.0%
8	Jola-Fonyi	dyo	340,000	31	6.7%
9	Karon	krx	9,000	21	4.6%
10	Mandjak	mfv	105,000	20	4.3%
11	Mankanya	knf	29,200	12	2.6%
12	Ndut	ndv	38,600	12	2.6%
13	Mandinka	mnk	669,000	10	2.2%
14	Noon	snf	32,900	10	2.2%
15	Oniyan	bsc	13,300	8	1.7%
16	Jola-Kasa	csk	45,100	7	1.5%
17	Wamey	cou	18,400	6	1.3%
18	English[e]	eng	Not applicable	5	1.1%
19	Gusilay	gsl	15,400	4	0.9%

	Language[a]	Language ISO 639-3 Code[b]	Estimated Speaker Population in Senegal[c]	Titles per Language	Percentage of Titles Surveyed[d]
20	Soninke	snk	378,000	3	0.7%
21	Unknown	—	—	3	0.7%

[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[b] International Organization for Standardization (ISO) 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al. (2015). The dates for the speaker population estimates vary by language and are provided (when available) in parentheses.
[d] Due to bilingual titles, the total will surpass 100%.
[e] French and English titles were either bilingual with a Senegalese language or a monolingual teacher's guides to accompany materials in a Senegalese language.

Types of Materials

Table H-2 details the types of materials found by language. Key observations include the following:

- Out of the 460 titles surveyed, 145 titles (32 percent) were textbook-related materials, and 315 (68 percent) were supplementary, non-textbook titles; however, individual languages have different proportions.

- Of the textbook-related titles, 88 (61 percent) were student textbooks and 37 (26 percent) were teacher's guides, more than a 2:1 ratio. Only 20 titles (14 percent) were student workbooks.

- Of the supplementary titles, narratives were by the far the predominant type with 265 titles (84 percent). Informational texts, reference materials, and poetry, songs, riddles, proverbs, or similar were all much rarer.

- The data collectors recorded 23 titles as "big books" and 64 as "leveled readers." All of the big books and 58 of the leveled readers were from one series (i.e., the EMiLE bilingual program in Serer-Sine and French). It is important to note that the corresponding French versions of these materials are mentioned here, but the data collectors did not log them because they fell outside of the scope of this study.

Table H-2. Number of Different Types of Materials Found, by Language

Language(s)[a]	Textbook-Related					Supplementary/Non-textbook							
	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Bandial	4	1	1	6	1.3%	22	1	—	3	26	5.7%	32	7.0%
Gusilay	—	—	—	0	0.0%	1	—	—	3	4	0.9%	4	0.9%
Jola-Fonyo	8	1	—	9	2.0%	15	4	—	2	21	4.6%	30	6.5%
Jola-Fonyo/French	—	—	1	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Jola-Kasa	1	—	—	1	0.2%	6	—	—	—	6	1.3%	7	1.5%
Karon	2	1	1	4	0.9%	9	3	—	—	12	2.6%	16	3.5%
Karon/French/English	—	—	—	0	0.0%	5	—	—	—	5	1.1%	5	1.1%
Kuwaataay	1	—	—	1	0.2%	28	7	—	—	35	7.6%	36	7.8%
Kuwaataay/French	—	—	—	0	0.0%	—	—	1	—	1	0.2%	1	0.2%
Mandinka	2	1	—	3	0.7%	4	—	—	—	4	0.9%	7	1.5%
Mandinka/French	—	—	2	2	0.4%	—	—	—	—	0	0.0%	2	0.4%
Mandjak	2	—	—	2	0.4%	15	1	—	—	16	3.5%	18	3.9%
Mandjak/French	—	—	—	0	0.0%	1	1	—	—	2	0.4%	2	0.4%
Mankanya	2	—	2	4	0.9%	3	4	—	—	7	1.5%	11	2.4%
Mankanya/French	—	—	—	0	0.0%	—	—	1	—	1	0.2%	1	0.2%
Ndut	2	—	—	2	0.4%	7	3	—	—	10	2.2%	12	2.6%
Noon	2	—	—	2	0.4%	4	4	—	—	8	1.7%	10	2.2%
Oniyan	—	—	—	0	0.0%	6	1	—	—	7	1.5%	7	1.5%
Oniyan/French	—	—	—	0	0.0%	—	1	—	—	1	0.2%	1	0.2%
Pulaar	14	—	—	14	3.0%	16	—	—	1	17	3.7%	31	6.7%
Pulaar/French	—	—	1	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Saafi-Saafi	6	1	7	14	3.0%	7	—	—	—	7	1.5%	21	4.6%
Saafi-Saafi/French	1	1	9	11	2.4%	—	—	1	—	1	0.2%	12	2.6%
Serer-Sine	15	10	1	26	5.7%	29	1	—	—	30	6.5%	56	12.2%
Sere-Sine/French	1	—	3	4	0.9%	59	—	1	—	60	13.0%	64	13.9%

	Textbook-Related					Supplementary/Non-textbook							
Language(s)[a]	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Serer-Sine/ Wolof/Pulaar	1	1	—	2	0.4%	—	—	—	—	0	0.0%	2	0.4%
Soninke	1	—	—	1	0.2%	1	—	—	—	1	0.2%	2	0.4%
Wamey	—	—	—	0	0.0%	4	2	—	—	6	1.3%	6	1.3%
Wolof	20	3	2	25	5.4%	20	3	—	—	23	5.0%	48	10.4%
Wolof/French	1	—	2	3	0.7%	2	—	1	—	3	0.7%	6	1.3%
Unknown	2	—		2	0.4%	1	—	—	—	1	0.2%	3	0.7%
French	—	—	3	3	0.7%	—	—	—	—	0	0.0%	3	0.7%
French/Soninke/ Mandinka	—	—	1	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
French/Wolof/ Pulaar	—	—	1	1	0.2%	—	—	—	—	0	0.0%	1	0.2%
Total	88	20	37	145	31.5%	265	36	5	9	315	68.5%	460	100.0%

Note: Percentages may not sum exactly to 100% because of rounding.
[a] Languages are presented in alphabetical order. Most languages go by several different names; several languages have the same name. In case of confusion, refer to the language International Organization for Standardization (ISO) code and the *Ethnologue* at www.ethnologue.com.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The 145 textbook-related materials were analyzed with regard to their pedagogical components. As shown in **Figure H-1**, the most common component was reading passages (87 [60 percent]), though only 57 (39 percent) were accompanied by comprehension questions. The least common component was grammar instruction and/or exercises (38 [26 percent]). Slightly more than half of the materials (78 [54 percent]) used what could be construed as a phonics approach to reading instruction.[1]

Figure H-1. Pedagogical components in textbook-related materials.
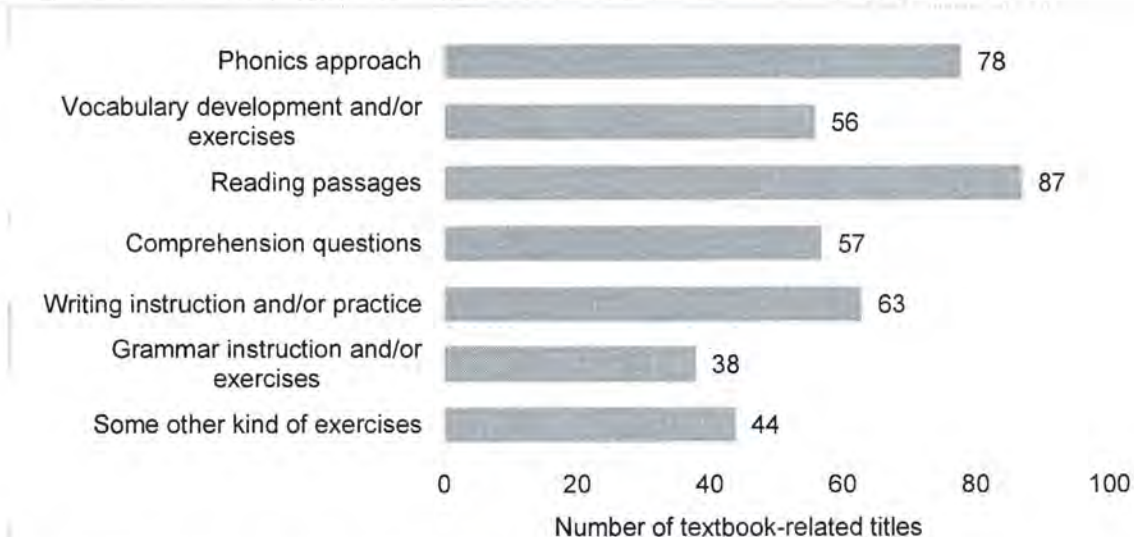
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Because "grade levels" refer to the formal education sector, it should be noted that African languages are not yet being used in formal schools in Senegal except in pilot programs; therefore, the quantity of materials designated for a formal grade level would be expected to be low. The materials surveyed included those intended for both the formal and informal education sectors. Although the informal materials are usually intended for adults, some of them could be adapted for children. Such materials would need to be further examined for correlation to the new curriculum grade level and to be approved by the MOE before use in formal schools.

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[1] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

Of the textbook-related materials, 84 (58 percent) were explicitly labeled for a specific grade level in the formal education system, with the highest numbers concentrated in Primary Grades 1 and 2. Only eight titles (six percent) were reported for Primary Grade 3 (**Figure H-2**).

Figure H-2. Publisher-designated levels for textbook-related materials.
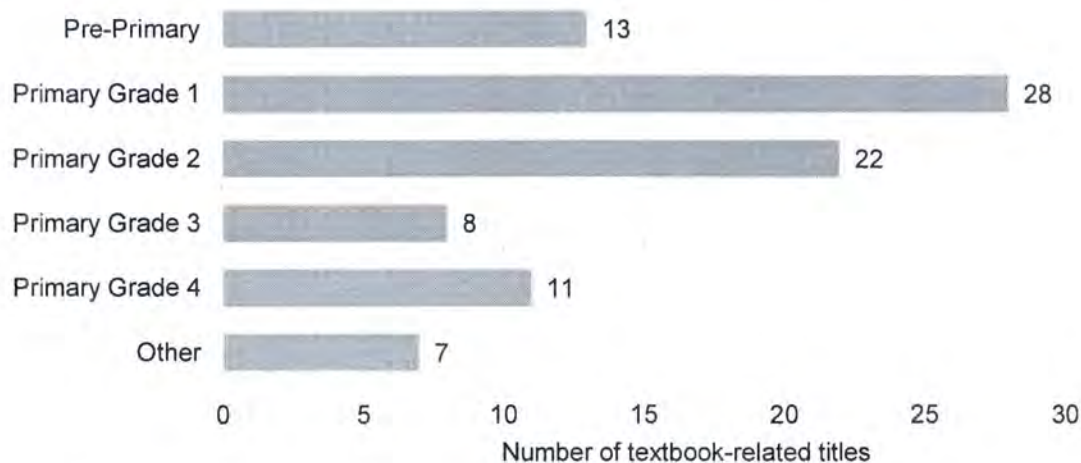
Note: Multiple responses per title were possible.

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors calculated the word counts for 228 narrative and informational titles.

The largest category was for narrative and informational texts with maximum words per page counts of more than 75 wpp (98 titles total [43 percent]; **Figure H-3**), corresponding to a relatively advanced level for beginning readers. The remaining titles were split almost evenly among the lower levels for the narrative texts, whereas the informational texts were heavily concentrated toward the higher ends of 51–75 wpp and more than 75 wpp.

These high word counts may reflect that many materials in Senegalese languages are designed for adult readers in the informal sector as opposed to children.

Figure H-3. Number of narrative and informational non-textbook titles by maximum words per page.

Number of non-textbook titles

● Narrative   Informational
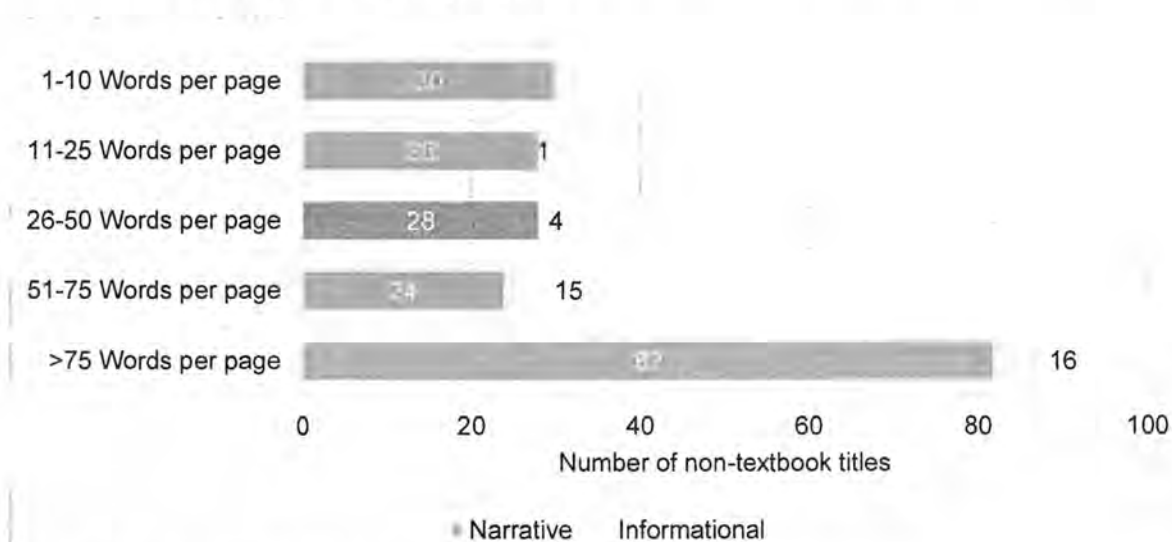
Note: This calculation was not performed for poetry or reference titles.

Illustrations

Nearly all of the materials surveyed (426 [93 percent]) were illustrated (**Figure H-4**). Most of the materials (359 [78 percent]) were illustrated with black and white or grayscale images as opposed to only 59 (13 percent) in all color. Senegal had the largest number and percentage of titles illustrated in black and white or grayscale of all 11 countries in the study.

Figure H-4. Presence and type of illustrations.

Is the book illustrated?

No, 7%

Yes, some B&W and some color, 2%

Yes, all color, 13%

Yes, all B&W and/or grayscale, 78%
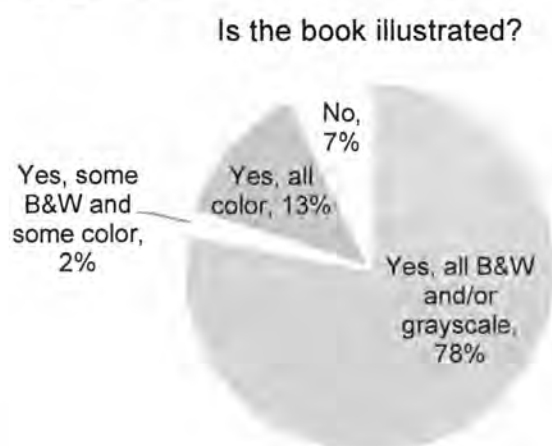
Content Themes

The data collectors examined 418 titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts and illustrations and identified the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure H-5**.

Out of the 350 titles examined, by far, the most common theme was animals, appearing in 119 (34 percent), followed by adventure (84 [24 percent]), education/school (78 [22 percent]), and morals/values (72 [21 percent]).

Out of the 350 titles reviewed for content themes, the data collectors found only 10 (three percent) as containing explicit religious content. Seven of these (70 percent) simultaneously featured all three of the following religions: Christianity, Islam, and Judaism.

Figure H-5. Content themes.

Theme	Number of titles
Adventure	84
Agriculture	28
Alphabet	69
Animals	119
Biography	3
Business	1
Careers/Professions/Jobs/Work	35
Community	65
Culture	51
Education/School	78
Environment	35
Family	57
Food/Nutrition	32
Friendship	40
Health/Personal Hygiene	64
History	9
Holidays/Celebrations	16
Home Life	24
How to/Skill Development	31
Human Body	50
Humor	38
Morals/Values	72
Numeracy/Counting/Math	24
Peace/Justice/Equality/Human Rights	3
Plants	12
Religion	10
Safety	3
Social Studies/Civic Education	1
Travel/Transportation	21
Weather	1

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 418 titles for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. The data collectors judged 405 titles (97 percent) as containing "very familiar" content, 12 (three percent) as containing "semi-familiar," and only one (less than one percent) as containing "mostly unfamiliar" content for the target audience.

The data collectors reviewed the illustrations of 413 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, or other known cultural taboos (**Figure H-6**). The data collectors did not identify any potentially sensitive content for most (375 [91 percent]) of the titles evaluated.

Figure H-6. Potentially sensitive content in the illustrations
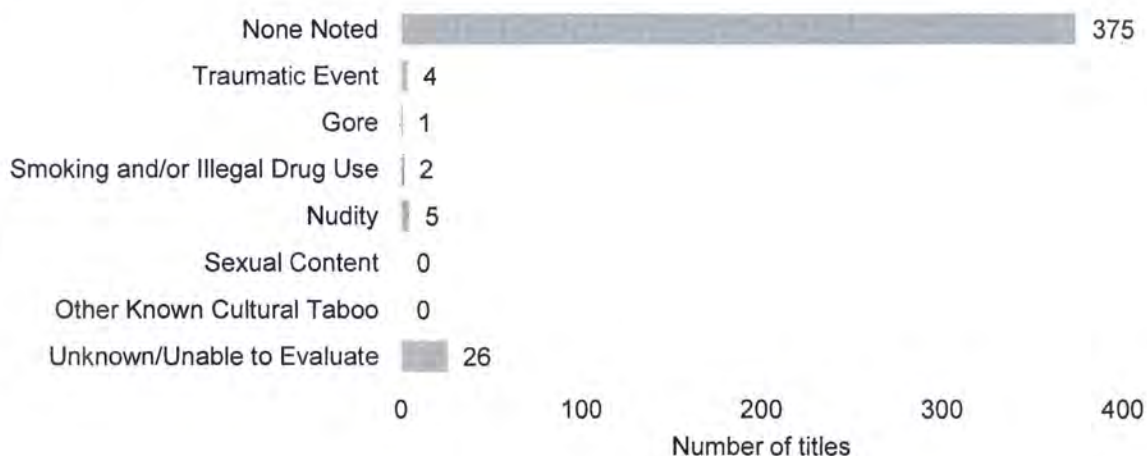
Note: Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of the materials to identify the frequency and equality of representation of people in the illustrations according to gender, ethnic and religious group identity, and disability. The data collectors did not evaluate all titles for these questions; exclusions included teacher's guides, reference materials, and titles that were not illustrated with humans or anthropomorphic animals.

Gender

The data collectors examined the illustrations in 331 titles for the frequency of representation of each gender, when apparent. For 51 titles (15 percent), gender was deemed not apparent, as when the characters were animals without obvious gender markers. Of the remaining 280 titles, the data collectors perceived 226 (81 percent) as portraying an overall balance of both genders (**Figure H-7**), and much fewer portrayed primarily male (23 [eight percent]) or female (31 [11 percent]) characters.

In addition, for 279 titles, the data collectors evaluated whether the illustrations portrayed male and female characters with "equal skills, knowledge, accomplishments, or roles." The data collectors judged that the male and female characters were portrayed comparably in 231 titles (83 percent), and unequally in only 15 materials (five percent). For the remaining 33 titles, data collectors considered that there was an insufficient basis for comparison.

Figure H-7. Frequency of gender representation in the illustrations
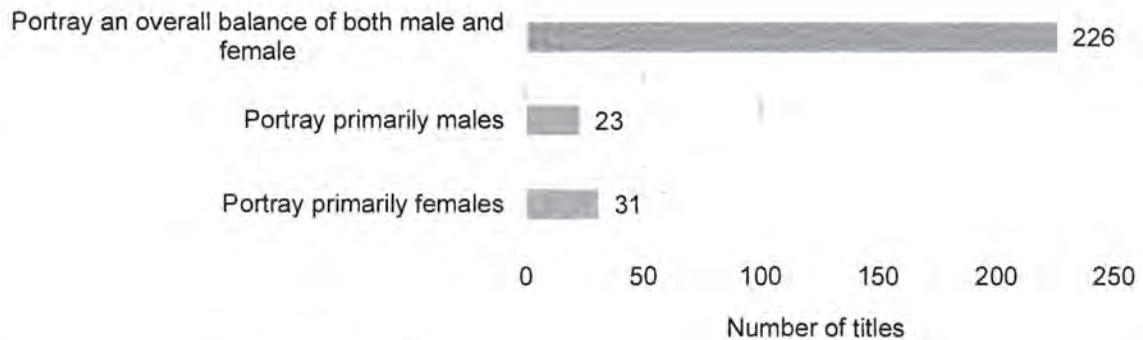
Category	Number of titles
Portray an overall balance of both male and female	226
Portray primarily males	23
Portray primarily females	31

Number of titles

Ethnic and Religious Group Identity

Similarly to gender, the data collectors examined the illustrations of 320 titles for the frequency of representation of different ethnic and religious group members, when apparent. Of those titles, 236 (74 percent) were deemed as not portraying characters with obvious ethnic or religious group identity markers (**Figure H-8**). Of the 84 titles that did, 77 titles (92 percent) were judged to portray exclusively one ethnic or religious group, but in cases where the data collectors judged that the target population was composed overwhelmingly of that group. The data collectors judged six titles (seven percent) to portray different groups proportionally to their presence in the target population, and only one title (one percent) to portray one group to the exclusion of another group.

For the overwhelming majority of titles, the data collectors judged that there was insufficient basis for comparison of the portrayal, if any, of ethnic or religious groups in the illustrations. The data collectors evaluated only six titles for the question of whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles," and all of them portrayed the different groups comparably.

Figure H-8. Frequency of ethnic/religious group representation in the illustrations.
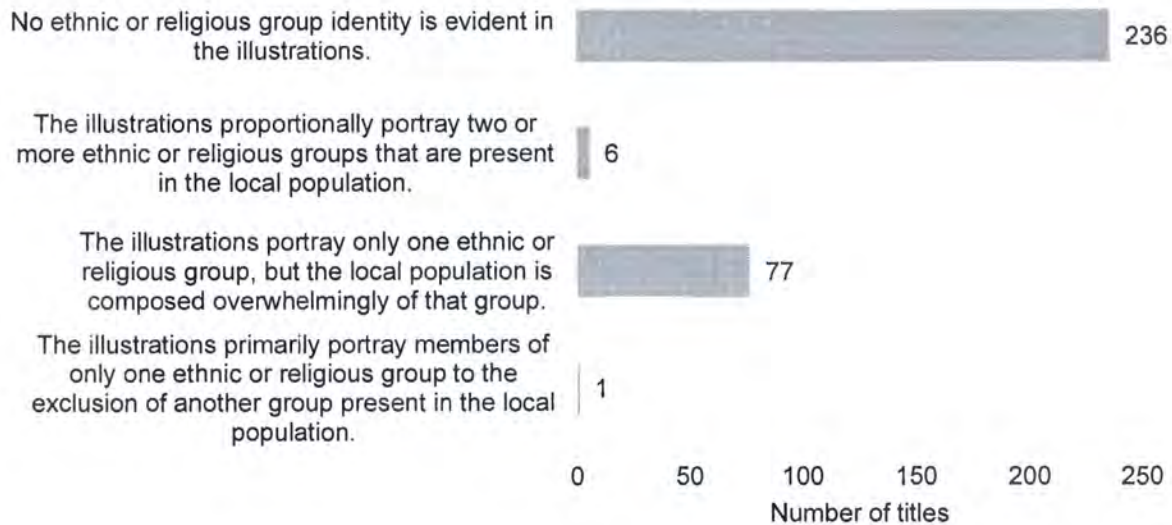
Disability

The data collectors also examined the illustrations of 331 titles for the frequency of representation of people with disabilities. Overwhelmingly, the materials surveyed lacked any illustrations of people with any type of disability; they appeared in just six titles (two percent; **Figure H-9**).

Of the six titles in which people with disabilities were portrayed, the data collectors judged four as portraying people with disabilities "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities." Two of the titles produced by SIL Senegal specifically address disability, encouraging the inclusion of disabled persons. The other instances did not call attention to the presence of people with disabilities.

Figure H-9. Frequency of the representation of people with disabilities in the illustrations.
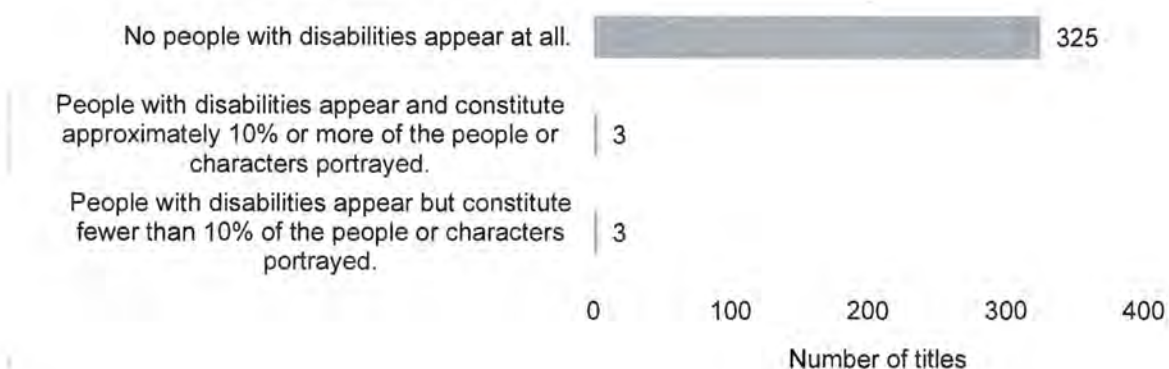
C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

Out of the 460 titles surveyed, 389 (85 percent) contained a copyright symbol. Some permissions for reuse were explicitly granted in the front matter of 12 titles (three percent). The majority of materials surveyed either did not have explicit statement concerning permissions (402 titles [87 percent]) or had an explicit statement similar in meaning to "All Rights Reserved" (46 titles [10 percent]).

None of the materials surveyed contained a Creative Commons license.

Medium

The data collectors encountered an overwhelming majority of the titles (446 [97 percent]) in hard copy, and 96 (21 percent) in soft copy, of which 82 titles (85 percent) were available in both media.

D. Landscape of the Production of Children's Reading Materials in Languages in Senegal

Publisher Types

Figure H-10 shows the number of titles published by each type of organization. For the purposes of this study, "publisher" referred broadly to any organization responsible for developing or funding the materials. Two or more organizations, at times belonging to different categories, jointly produced many titles. Also, in many, but not all, cases, FBOs overlapped with nonprofit publishers.

Among the titles surveyed, the difference in number between titles produced by commercial publishers versus nonprofit organizations is striking. Nonprofit and faith-based publishers far outweigh the commercial publishers in producing children's reading materials in Senegalese languages. The commercial children's book market is geared toward textbooks for use in schools. Because Senegalese languages are not widely used in primary education, commercial publishers focus solely on children's materials in French.

Although government education offices and institutions had a large inventory of books in Senegalese languages, many were found to be outside the early grade target of this study. The remaining titles were limited to the largest language groups.

The data collectors logged titles from a total of 39 distinct organizations, though again, many titles were jointly produced by two or more organizations. Of the 39 organizations, nine were domestic government entities; one was academic; seven were commercial publishers; 22 were nonprofit organizations, six of which were also faith-based; and two were just FBOs.

The most prolific producer of materials relevant to this study was SIL Senegal, contributing to 224 titles (49 percent), followed by World Vision and ONECS (84 [18 percent]), which both published in partnership with SIL Senegal. All three organizations are nonprofit and FBOs. Their high numbers stem from their joint production of the 83 titles (18 percent) that constituted two sets of leveled readers and one set of big books for the EMiLe project in the Serer-Sine language. (These numbers do not count the accompanying French titles that are part of the same project.) The next highest count belongs to Tostan, a nonprofit organization, with 29 titles (six percent).

The data collectors did not identify any titles produced under bilateral or multilateral cooperation agreements.

Figure H-10. Number of titles by publisher type
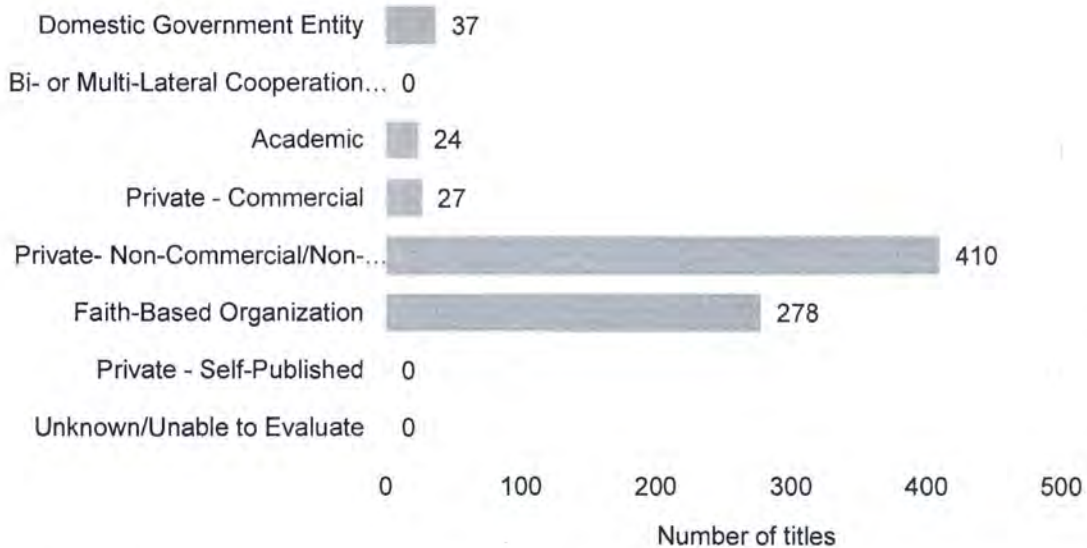
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

Most of the materials found by the data collectors were fairly recent, with 252 (55 percent) having been published within the past five years and 377 (82 percent) published since 2000 **(Figure H-11)**.

Figure H-11. Year of publication
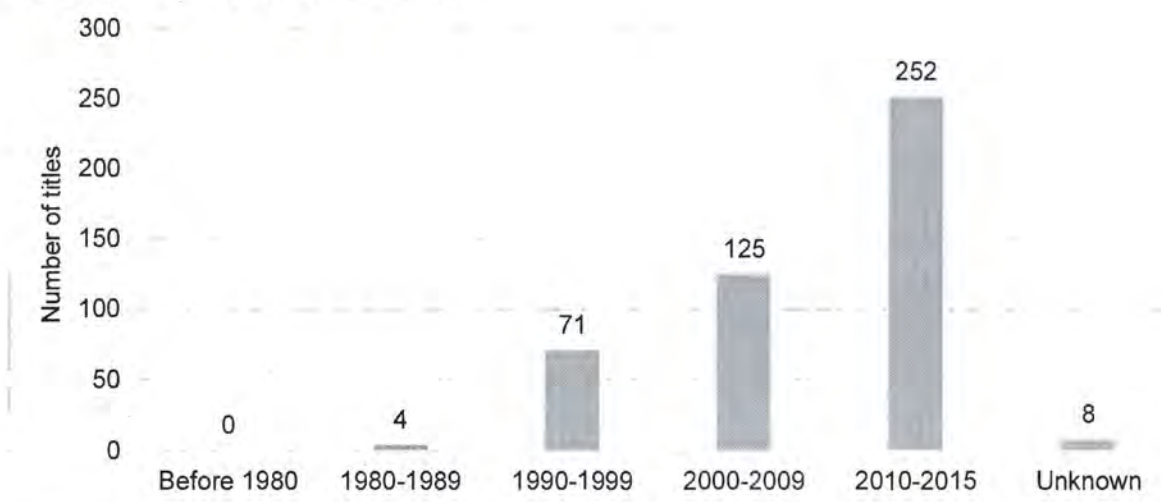
International Standard Book Number

Out of the 460 titles collected, only 40 (nine percent) had an International Standard Book Number (ISBN) number. The process of obtaining an ISBN involves communicating with the ISBN office in France that controls the administration of ISBNs for Senegal.

Price

Out of the 460 materials surveyed, the data collectors recorded only two titles (less than one percent) as available for free to the public; however, some NGOs provide their materials free of charge to participants in their literacy programs.

The data collectors recorded the prices for 80 (18 percent) of the 446 hard-copy books. Overall, the average price of this subset was $1.99 (U.S. dollars [USD]; **Table H-3**). The prices of the soft-copy materials were unknown.

Because the price was known for so few titles, these prices cannot be guaranteed to be representative of the entire sample.

Table H-3.   Price of Hard-Copy Materials by Book Type

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Textbook-Related				
Student literacy textbook	0	22	$2.02	$0.85–$3.40
Student literacy workbook	1	5	$1.53	$0.85–$3.40
Literacy Teacher's Guide	0	11	$3.30	$0.13–$6.80
Non-textbook				

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Narrative	0	38	$1.58	$0.68–$5.95
Informational	1	1	$2.04	$2.04
Reference	0	1	$5.10	$5.10
Poetry, etc.	0	0	—	—
All titles	2	78	$1.99	$0.13–$6.80

[a] Exchange rate: 1 Central African Franc = 0.0017 U.S. dollar (USD).

4. Remarks

The survey of early grade reading materials in Senegalese languages revealed several trends, constraints, and opportunities regarding the development, production, and dissemination of materials.

In many cases, the number of titles found was disproportional to the size of the speaker population. One might expect that the availability of language-specific materials would be a function of language size and prestige. Many organizations work in the Wolof language, whereas Serer-Sine, Jola, and other languages receive less widespread attention. This does not, however, determine the actual quantity or quality of materials available in these languages. A few particularly productive organizations working in smaller languages (i.e., languages spoken by fewer people) have produced a large amount of materials. However, some of these materials have been designed for the informal education sector and would need to be adapted for use in the formal sector.

Commercial publishers are not highly engaged in materials production. For-profit, commercial publishers are not very active in the development or production of reading materials for children in Senegalese languages. The low average family income creates a weak market for children's books other than the textbooks required for school, and with bilingual education policies not widely implemented, all the demand, if any, is for materials in French.

NGOs responsible for majority of materials in national languages. Among the most active NGOs are SIL Senegal and its language-specific local partners, which have longstanding, effective experience in national language literacy efforts in many languages, mostly in the informal sector with smaller language groups. Titles published by SIL Senegal account for 67% of all titles surveyed in Senegal , including those that were published in partnership with other non-profit FBOs.

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Annex I. Summary of the Early Grade Reading Materials Survey in Tanzania

Geography and Demographics

Size:	947,300 square kilometers (km²)
Population:	51 million (2015)
Capital:	Dodoma (legislative); Dar es Salaam (executive and commercial)
Urban:	32% (2015)
Administrative Divisions:	30 regions: 25 on the mainland, 5 on Zanzibar
Religion:	Mainland: 61% Christian 35% Muslim 2% Traditional 1% Unaffiliated <1% Other Zanzibar: Mostly Muslim

Source: Central Intelligence Agency (2015).
Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 7–13 years):[a]	9.2 million
Adult (aged >15 years)	80%	85%	76%	2013 Primary School GER:[a]	90%, up from 67% in 1999
Youth (aged 15–24 years)	87%	87%	87%	2013 Pre-primary School GER:[a]	33%

Sample EGRA Results[b]	Languages:	English, Kiswahili	Oral Reading Fluency:	Mean: 9.4 (English)/ 17.9 (Kiswahili) correct words per minute
	When:	2012		
	Where:	Nationally representative sample		38% zero scores (English); 28% zero scores (Kiswahili)
	Who:	2,266 P2 students	Reading Comprehension:	95% zero scores (English) 40% zero scores (Kiswahili)

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P2 = Primary Grade 2. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: Brombacher et al. (2014).

Language

Number of Living Languages:[a] 125

Major Languages[b]	Estimated Speaker Population[c]	Government Recognized Status
Kiswahili[d]	15 million (L1) (2012) 32 million (L2) (2015)	Official language
English	4 million (L2) (2003)	Official language
Sukuma	7.3 million (2013)	"Ethnic community language" with no official status
Gogo	1.9 million (2013)	"Ethnic community language" with no official status
Haya	1.7 million (2013)	"Ethnic community language" with no official status
Nyamwezi	1.3 million (2013)	"Ethnic community language" with no official status
Makonde	1.3 million (2013)	"Ethnic community language" with no official status
Hehe	1 million (2013)	"Ethnic community language" with no official status
Nyakyusa	1 million (2013)	"Ethnic community language" with no official status

Note: L1 = first language; L2 = second language.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[c] Source: Lewis et al. (2015). The dates for the speaker population estimates vary by language and are provided in parentheses.
[d] Listed as Swahili in Lewis et al. (2015).

Tanzania Findings in Brief:

The language in education policy in Tanzania calls for instruction in Kiswahili throughout the primary cycle. This policy has apparently had a strong impact on the titles available for young readers in the country—all but one of the 387 titles surveyed were in Kiswahili. The findings also suggest that the production of children's reading materials in Kiswahili is overwhelmingly dominated by commercial publishers. Tanzania had the highest percentage of copyrighted materials (94 percent) of all the countries in the study, with none granting permissions for reuse. Similar to the findings in the other countries, however, most of the books surveyed seemed to contain appropriate content and were balanced in terms of gender representation, though few portrayed individuals with disabilities. Most of the titles were also written at a relatively advanced level for young readers in terms of words per page.

1. Language in Education Policy in Tanzania

After Tanzanian independence in 1961, Kiswahili became the national language and the official medium of instruction in public primary education. The official language policy requires all seven years of public primary education to be provided in Kiswahili. The major objectives of primary education are to lay the socio-cultural foundations of the Tanzanian citizens and nation

and to prepare children for secondary education or work. Currently, English is taught as a subject from Standard (Primary Grade) 1 in primary schools. When students complete primary school and advance to secondary school, the official language of instruction (LOI) changes from Kiswahili to English (Komba and Daimana, 2015). However, studies have shown that many students and teachers have difficulty with English, and so informally Kiswahili remains the de facto medium of instruction at the secondary level (Kinyaduka and Kiwara, 2013).

The 2014 Tanzania Education and Training Policy, released in early 2015 and not yet implemented, reinforces the importance of Kiswahili as the LOI in primary schools and potentially extends its use to the secondary and tertiary levels (United Republic of Tanzania, 2014), either alongside or instead of English, depending on how one interprets the text. As of this writing, there is not yet full consensus regarding the interpretation or implications of the new policy, and the issue remains controversial (Taylor, 2015). Nonetheless, going forward, Kiswahili could assume a larger formal role in education than it has in the past.

Tanzania's stance regarding instruction in any of the other local languages (more than 120) is very restrictive and may have an impact on literacy outcomes in Tanzania for those whose first language is not Kiswahili. The cultural policy document released by the government in 1997 recognized the importance of all vernacular languages of Tanzania (Rubagumya, 2010). However, these languages remain banned in mass media, politics, and schools, and they are not included in the 2014 Education and Training Policy. According to Legère (2002), ethnic languages are regarded as national treasures and a source for elaborating Kiswahili terminologies, but there is no effort to give them an official status. The languages are not used for official business, and any informal practices of using ethnic languages as a medium of instruction are not well documented.

2. Data Collection

The data collectors surveyed 387 titles in two regions of Tanzania: Dar es Salaam and Bukoba. Dar es Salaam is where most publishing industries, booksellers, and nongovernmental organizations (NGOs) are found, and Bukoba is home to several publishing companies. The data collectors obtained a large majority of the titles (341 [88 percent]) directly from the publishers.

3. Findings

A. Availability of Materials for Early Grade Reading in Tanzanian Languages

Materials by Language

The data collectors surveyed 387 titles, of which 382 (99 percent) were written in Kiswahili and one (less than one percent) in Nyamwezi (**Table I-1**). The one title found in the Nyamwezi language was a story book, published by Mathew Publishers Association, a private publishing company. Nine titles (two percent) contained languages that the data collectors were unable to identify, so these materials were counted under the "Unknown" category (Table I-1). The data collectors did not survey English materials because the focus of the study was on African

languages. The dominance of Kiswahili materials is not surprising, given its official status and the language in education policy previously described. However, Tanzania was an outlier among the 11 countries included in this study with regard to the low linguistic diversity of its inventory.

Most of the materials surveyed were monolingual in Kiswahili (378 titles [98 percent]), and nine (two percent) were bilingual with at least one unknown language.

Table I-1. Languages in Which Materials Were Found in Tanzania

	Language	Language ISO 639-3 Code[a]	Estimated Population of Speakers in Tanzania[b]	Titles per Language	Percentage of Titles Surveyed[c]
1	Kiswahili	swh	15,000,000 (L1) (2012) 32,000,000 (L2) (2015)	382	98.7%
2	Nyamwezi	nym	1,300,000 (L1) (2013)	1	0.3%
3	Unknown	Not applicable	Not applicable	4	1.3%

Note: ISO = International Organization for Standardization; L1 = first language; L2 = second language.
[a] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[b] Source: Lewis et al. (2015).
[c] Due to bilingual titles, the total will surpass 100%.

According to the *Ethnologue* (Lewis et al., 2015), there are many other languages in Tanzania with native speaker populations greater than one million individuals. These languages include Sukuma, Gogo, Haya, Makonde, Hehe, and Nyakusa. The data collectors did not encounter any children's reading materials in these languages during the course of this study. Although the Government of Tanzania does not prohibit the publication of reading materials in other languages, the market for them has apparently been suppressed because of the language policy favoring Kiswahili.

Types of Materials

Table I-2 details the types of materials found by language. Key observations include the following:

- Out of the 387 titles surveyed, 82 (21 percent) were literacy textbooks or related materials; the remaining 305 titles (79 percent) were non-textbooks or supplementary materials.

- Out of the 82 textbooks or related titles, 80 (98 percent) were student literacy textbooks or primers; only two (two percent) were student workbooks. The data collectors did not encounter any teacher's guides during the survey.

- Out of the 305 non-textbooks, 268 titles (88 percent) were narrative texts. All of the other types of supplementary materials were rare.

Table I-2.   Number of Different Types of Materials Identified, by Language

	Textbook-Related					Supplementary / Non-textbook							
	Student Textbook	Student Workbook	Teacher's Manual	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Nyamezi	—	—	—	0	0.0%	1	—	—	—	1	0.3%	1	0.3%
Kiswahili	80	2	—	82	21.2%	258	18	3	14	295ᵃ	76.2%	377	97.4%
Kiswahili/ Unknown	—	—	—	0	0.0%	5	—	—	—	5	1.3%	5	1.3%
Unknown	—	—	—	0	0.0%	4	—	—	—	4	1.0%	4	1.3%
Total	80	2	0	82	21.2%	268	18	3	14	305	78.8%	387	100.0%

ᵃ Two monolingual Kiswahili titles were marked as supplementary material of an "Unknown" subtype.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The data collectors reviewed the 82 textbook-related titles in the survey for their pedagogical components (**Figure I-1**). Overall, the textbook-related materials included various components with approximately equal frequency, including reading passages (31 titles, [38 percent]), vocabulary development and/or exercises (29 titles, [35 percent]), comprehension questions (28 titles [34 percent]), and writing instruction and/or practice (27 titles, [33 percent]). The data collectors judged only 16 titles (20 percent) as using a phonics approach[1] to reading instruction, far below the average of 42 percent for the 11 countries in the study.

Figure I-1. Pedagogical components in textbook-related materials
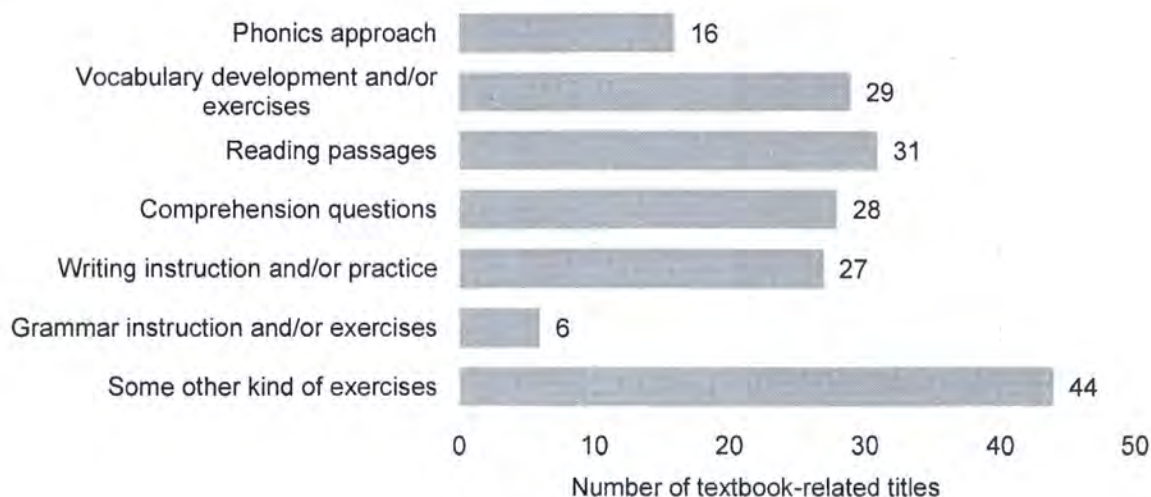
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Out of the 82 textbook titles, 80 (98 percent) were explicitly labeled by the publisher for a specific grade level (**Figure I-2**). (Note: Titles could be labeled for more than one level.) The data collectors found similar numbers for Primary Grades 1 through 3. Although the survey targeted materials for kindergarten through Primary Grade 3, the data collectors included titles that were designated for higher primary grades if they judged them to be potentially useful in lower grades. In this case, the data collectors included five titles designated for Primary Grade 4.

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[1] "Phonics approaches" focus on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

However, there were very few materials encountered for preschool, nursery, and kindergarten, even though they were specifically targeted as part of the study.

Figure I-2.   Publisher-designated levels for textbook-related materials
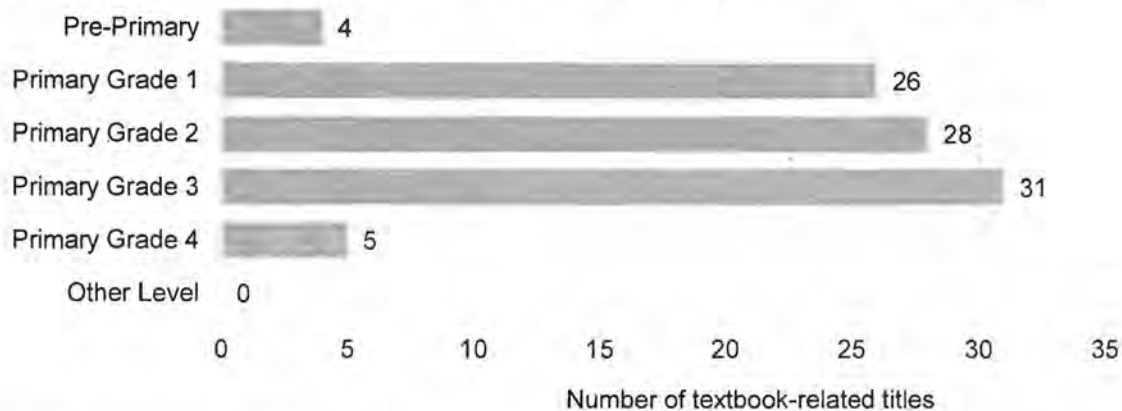
Note: Multiple responses per title were possible.

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this count for 286 narrative and informational texts.

Of these titles, 108 (38 percent) had more than 75 wpp, which is relatively advanced for early readers (**Figure I-3**). Only 20 titles (seven percent) of books fell in the beginning range of between 1 and 10 wpp.

Figure I-3. Number of narrative and informational non-textbook titles by maximum words per page
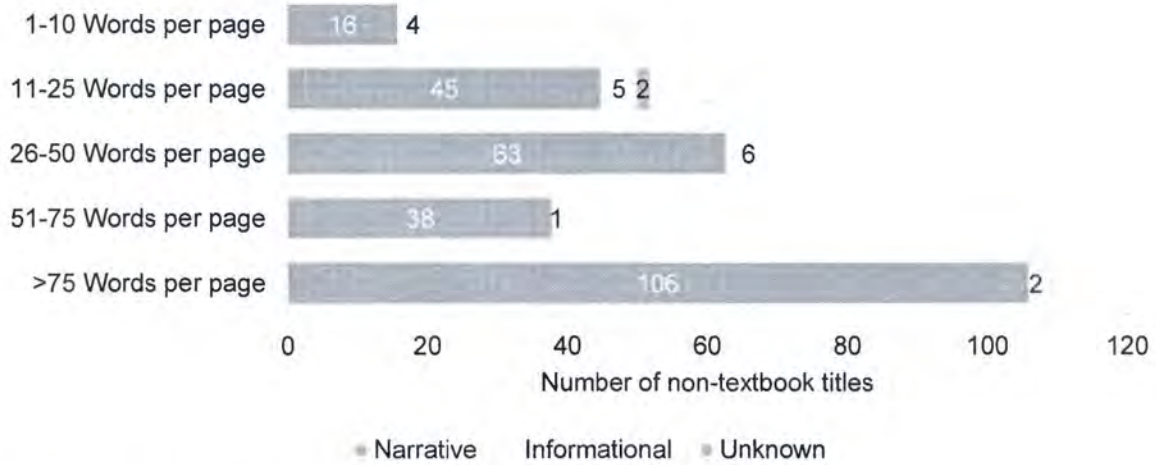
1-10 Words per page	16 4
11-25 Words per page	45 5 2
26-50 Words per page	63 6
51-75 Words per page	38 1
>75 Words per page	106 2

Number of non-textbook titles

● Narrative   Informational   ● Unknown

Note: This calculation was not performed for poetry or reference titles.

Illustrations

Out of the 387 titles included in the survey, almost all of them had some type of illustration; only eight (two percent) were not illustrated. As shown in **Figure I-4,** of the 387 titles surveyed, the most common illustrations were in full color (253 titles [65 percent]). There were 58 titles (15 percent) with a mix of black and white and color illustrations, and 68 titles (18 percent) that used all black and white or grayscale images.

Figure I-4.   Presence and type of illustrations.

Is the book illustrated?

No, 2%

Yes, all B&W and/or grayscale, 18%

Yes, some B&W and some color, 15%

Yes, all color, 65%
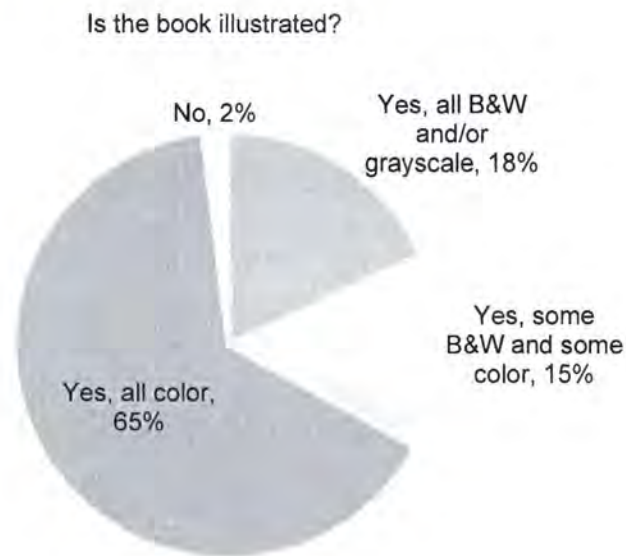
Content Themes

The data collectors examined 375 of the titles for content themes, excluding reference materials. The data collectors skimmed the texts and illustrations and identified the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure I-5**.

The most common topics included animals (120 [32 percent]), education/school (99 [26 percent]), morals/values (90 [24 percent]), family (83 [22 percent]), and health/personal hygiene (65 [17 percent]). The least common topics included peace, justice, equality, and human rights (21 titles [six percent]); history (one [less than one percent]); religion (Christianity, with one [less than one percent]); and biography (zero [zero percent]).

Figure I-5. Content themes.

Theme	Number of titles
Adventure	11
Agriculture	13
Alphabet	22
Animals	120
Biography	0
Business	4
Careers/Professions/Jobs/Work	6
Colors/Shapes	12
Community	31
Culture	40
Education/School	99
Energy	2
Environment	52
Family	83
Food/Nutrition	43
Friendship	47
Health/Personal Hygiene	65
History	1
Holidays/Celebrations	4
Home Life	10
How to/Skill Development	9
Human Body	9
Humor	34
Morals/Values	90
Numeracy/Counting/Math	12
Peace/Justice/Equality/Human Rights	21
Plants	21
Religion	1
Safety	16
Science	7
Social Studies/Civic Education	11
Technology	3
Travel/Transportation	7
Unknown	9
Weather	4

Number of titles

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 384 titles for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Reference materials

were excluded from this item. The data collectors judged 370 titles (96 percent) as containing "very familiar" content, 10 titles (three percent) as containing "semi-familiar," and two titles (one percent) as containing "mostly unfamiliar" content for the target audience. The data collectors were unable to evaluate the familiarity of the content for two titles (one percent).

The data collectors reviewed the illustrations of 384 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, or other known cultural taboos (**Figure I-6**). The data collectors did not identify any potentially sensitive content 356 titles (93 percent). The most common type of content flagged for its potentially sensitive nature was sexual content (16 titles [four percent]). The other categories were relatively rare, occurring in fewer than 10 titles each.

Figure I-6. Potentially sensitive content in the illustrations.
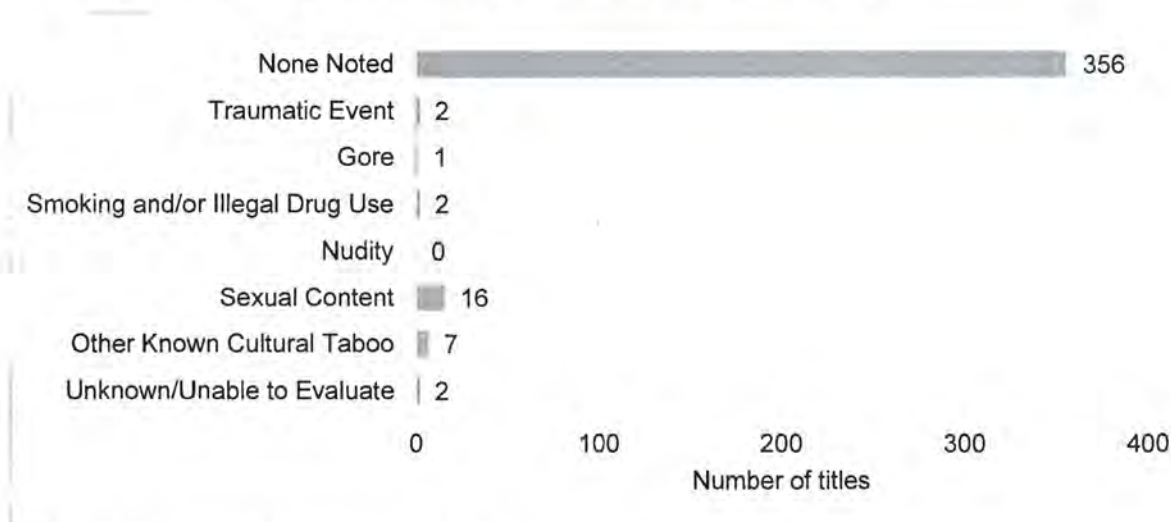
Note. Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of the materials for the frequency and equality of representation of people in the illustrations according to gender, ethnic or religious group identity, and disability. The data collectors did not evaluate all titles for these questions; exclusions included reference materials and titles that were not illustrated with humans or anthropomorphic animals.

Gender

The data collectors analyzed 209 titles for frequency of gender representation. Gender was not apparent in 59 titles (28 percent), further limiting the subset used to evaluate this item to 150 titles. The data collectors judged that 120 of them (80 percent) portrayed an overall balance of both genders (**Figure I-7**). Those that portrayed primarily one gender were fairly evenly split between those that portrayed primarily female characters (14 titles [nine percent]) and those with primarily male characters (16 titles [11 percent]).

Figure I-7. Frequency of gender representation in the illustrations.
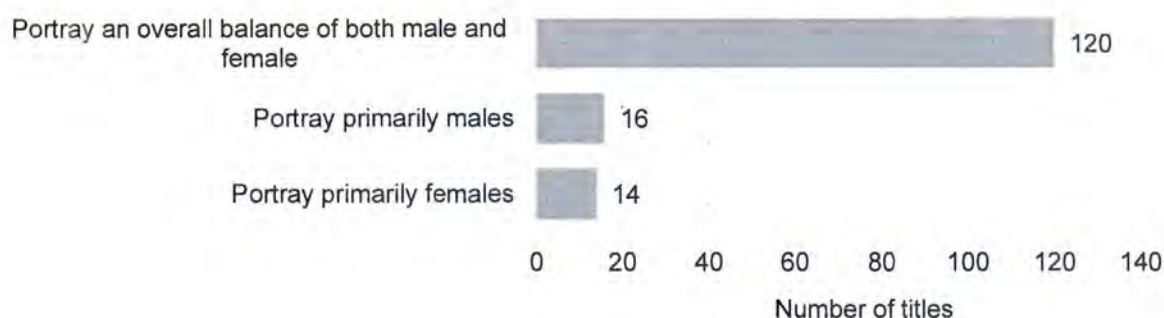
In addition, for 133 titles, the data collectors evaluated whether the illustrations portrayed male and female characters with "equal skills, knowledge, accomplishments, or roles." The data collectors judged that the male and female characters were portrayed comparably in 95 of these titles (71 percent) and unequally in 14 (11 percent). For the remaining 24 titles (18 percent), the data collectors considered that there was an insufficient basis for comparison.

Ethnic and Religious Group Identity

Similarly to gender, the data collectors examined the illustrations of 208 titles for the frequency of representation of different ethnic and religious group members, when apparent. Out of those titles, 200 (96 percent) were deemed to not portray characters with obvious ethnic or religious group identity markers (**Figure I-8**). The data collectors judged three titles (one percent) to portray different groups proportionally to their presence in the population, and five titles (two percent) to portray exclusively one ethnic or religious group in cases where the target population was composed overwhelmingly of that group. The data collectors did not identify any titles as portraying one group to the exclusion of another group present in the target population.

For the overwhelming majority of titles, the data collectors judged that there was insufficient basis for comparison of the nature of the portrayal, if any, of ethnic or religious groups in the illustrations. The data collectors evaluated only 11 titles for the question of whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles," and of those, they determined that only one (nine percent) portrayed the different groups comparably, versus 10 (91 percent) that portrayed them unequally.

Figure I-8. Frequency of ethnic and religious group representation in the illustrations.
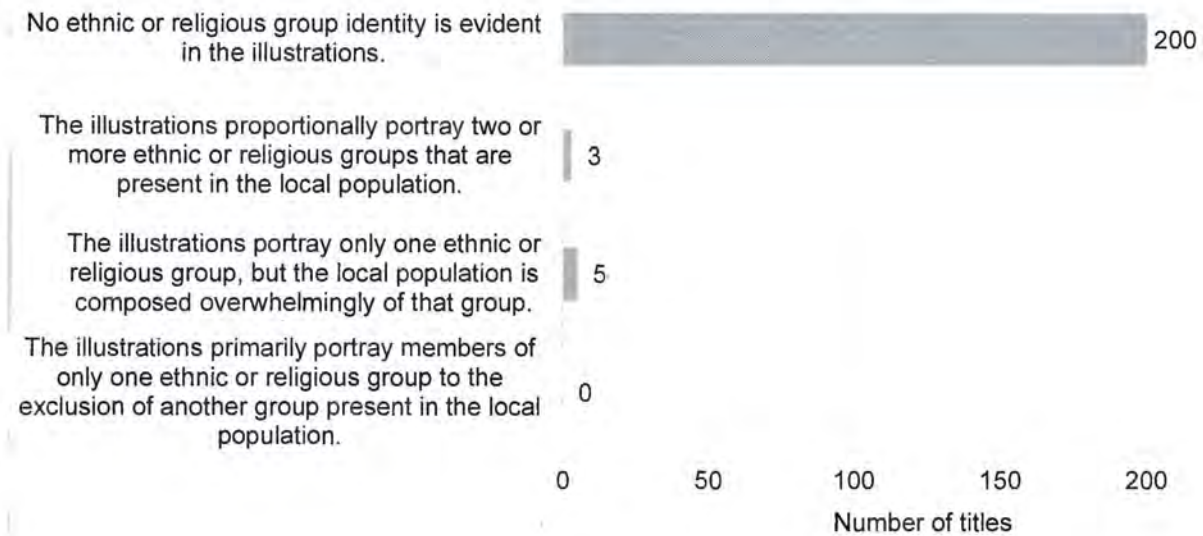
No ethnic or religious group identity is evident in the illustrations. — 200

The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population. — 3

The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group. — 5

The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population. — 0

Number of titles
(0, 50, 100, 150, 200)

Disability

The data collectors also examined the illustrations of 209 titles for the frequency of representation of people with disabilities. Overwhelmingly, the materials lacked any illustrations of people with any type of disability; they appeared in just two titles (less than one percent; **Figure I-9**). Of those two titles, one was judged to portray people with disabilities "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

Figure I-9. Frequency of the representation of people with disabilities in the illustrations
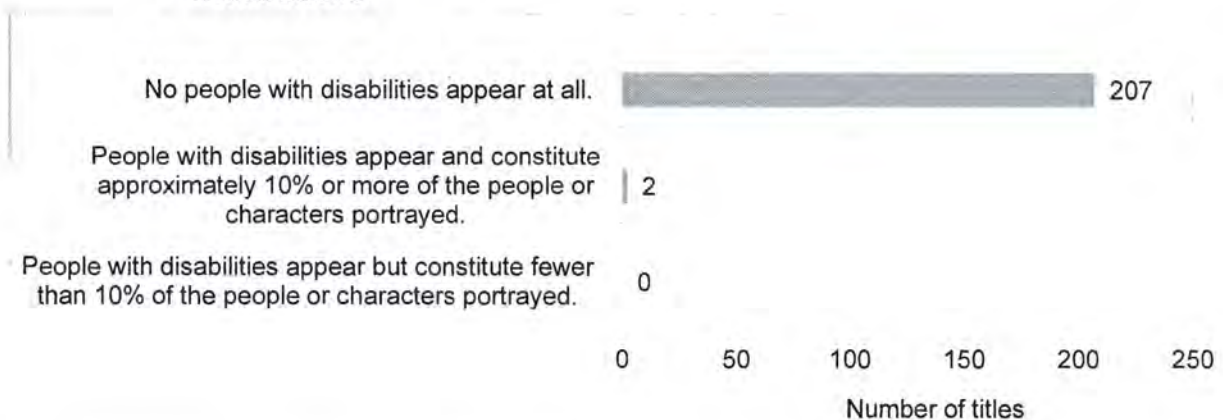
No people with disabilities appear at all. — 207

People with disabilities appear and constitute approximately 10% or more of the people or characters portrayed. — 2

People with disabilities appear but constitute fewer than 10% of the people or characters portrayed. — 0

Number of titles
(0, 50, 100, 150, 200, 250)

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

Out of the 387 titles surveyed, 363 (94 percent) contained a copyright symbol. In addition, 360 (93 percent) contained an explicit statement with the equivalent meaning of "All Rights Reserved." The data collectors did not identify any titles that contained an explicit statement granting permissions for reuse or a Creative Commons license.

Medium

The survey included 29 titles (seven percent) that were available in both hard and soft copies. These titles were from the U.S. Agency for International Development (USAID) Tanzania 21st Century Basic Education Project, as well as Room to Read materials. The remaining 358 titles (93 percent) were only available in hard copy.

D. Landscape of the Production of Children's Reading Materials in Tanzanian Languages

Publisher Types

The largest number of titles identified during the survey were produced by private commercial publishers, with 354 titles (91 percent) (**Figure I-10**). This was the highest percentage of involvement from the commercial publishing sector of the 11 countries in the study. Private noncommercial, nonprofit, and NGO publishers trailed far behind with only 30 titles (eight percent), and bilateral and multilateral organizations produced 16 of the titles (four percent) in the survey. The Tanzanian government, academic organizations, or faith-based organizations produced a few titles. According to the data collectors' observations, faith-based organizations tend to focus on the Bible or religious texts aimed at adults. This study suggests that the commercial publishing industry in Tanzania is more involved in developing children's secular reading materials in the country than are other types of organizations.

Figure I-10. Number of titles by publisher type.
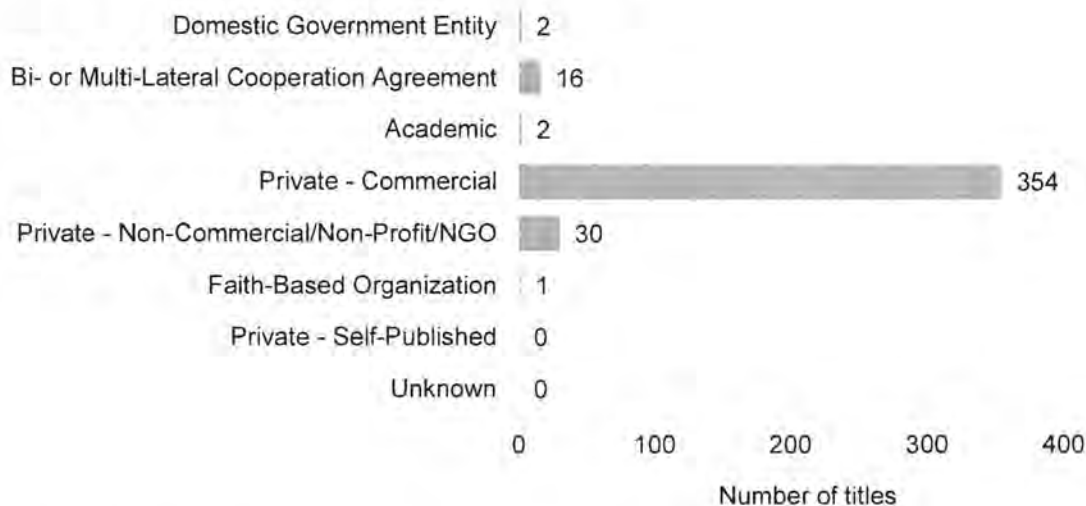
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

The data collectors recorded information regarding the year of publication for each of the titles (**Figure I-11**). Interestingly, none of the materials included in the survey was produced before 1991. Most of the materials (237 titles, [61 percent]) were published between 2000 and 2009. Because there were 94 titles (24 percent) published and included in the survey for the period between 2010 and March 2015, if this pace should continue through 2019, then a similar number of titles will be produced during the current decade.

Figure I-11. Year of publication.
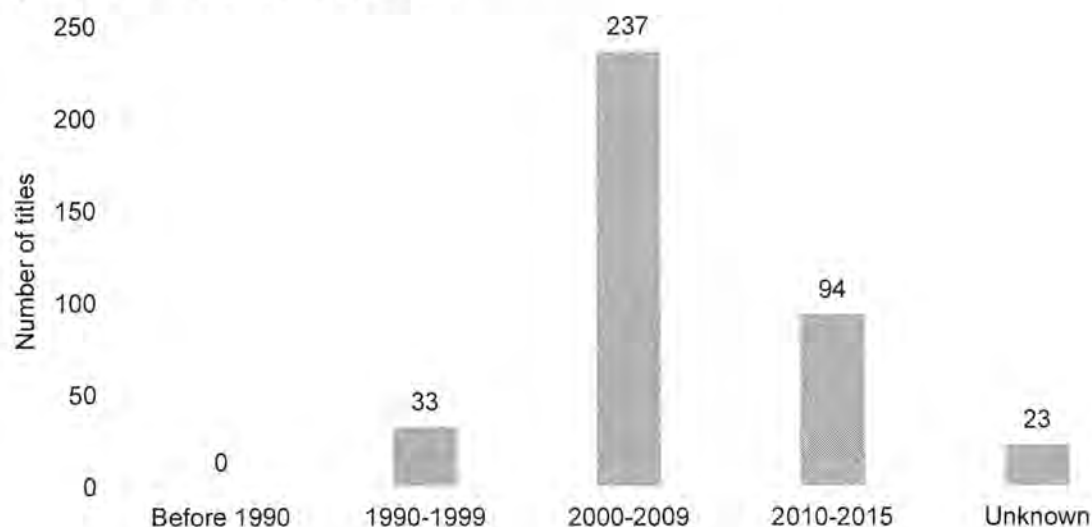
International Standard Book Number

Of the 387 titles surveyed, most (354 [91 percent]) had an International Standard Book Number (ISBN), and 33 titles (nine percent) did not. These findings may be related to the prevalence of titles produced by the commercial publishing industry.

Price

Out of the 387 titles surveyed, only 29 titles (seven percent) were free. These 29 titles are available online and are from the following sources: Tanzania 21st Century Basic Education Project, available on USAID's Development Experience Clearinghouse Web site (16 titles), and Room to Read (13 titles).

As described in **Table I-3**, the average price of a nonfree title included in the survey was $2.62 (U.S. dollars [USD]). The data collectors identified 52 titles (13 percent) for which the prices were unknown. The textbooks were slightly more expensive than the non-textbooks.

Table I-3.   Price of Hard-Copy Materials Available by Book Type

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Textbook-Related				
Student book	0	72	$3.25	$1.65–$4.95
Student workbook	0	2	$2.75	$2.48–$3.03
Teacher's guide	0	0	Not applicable	Not applicable
Non-textbook				
Narrative	0	201	$2.43	$0.83–$3.85
Informational	0	14	$2.67	$1.65–$3.85
Reference	0	3	$2.10	$1.10–$2.75
Poetry, etc.	0	12	$1.68	$1.54–$3.85
Unknown	0	2	$1.79	$1.38–$2.20
All Titles	**0**	**303**	**$2.62**	**$0.83-$4.95**

[a] The exchange rate was 1 Tanzanian Shilling = 0.00055 U.S. dollar (USD).

4.   Remarks

The findings from the survey in Tanzania show that the commercial publishing industry dominates the production of early grade reading materials in Kiswahili, and to the exclusion of all other Tanzanian languages. The prevalence of Kiswahili reflects the Government of Tanzania's policy regarding the LOI at the primary level; the policy has been in place for many years.

The lack of teacher's guides constitutes a striking gap in the inventory. Other types of books that were relatively rare include textbooks or workbooks for the pre-primary level and supplementary

reading materials for the earliest stages of literacy development. Although the existing textbooks contain a variety of pedagogical components, they rarely employ a phonics approach to reading instruction. The data collectors deemed that overall, the content of the existing materials was appropriate for the target audience and portrayed a good gender balance. However, more could be done to incorporate individuals with disabilities into educational materials.

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Annex J. Summary of the Early Grade Reading Materials Survey in Uganda

Geography and Demographics

Size:	241,038 square kilometers (km²)
Population:	37 million (2015)
Capital:	Kampala
Urban:	16% (2015)
Administrative Divisions	111 Districts + 1 Capital City
Religion	84% Christian 12% Muslim 3% Other 1% None

Source: Central Intelligence Agency (2015).

Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 6–12 years):[a]	7.9 million
Adult (aged >15 years)	74%	81%	67%	2013 Primary School GER:[a]	107%, down from 128% in 1999
Youth (aged 15–24 years)	87%	87%	87%	2013 Pre-primary School GER:[a]	11%
	Language:	Ganda			Mean: 18.1 correct words per minute
	When:	2009		Oral Reading Fluency:	Standard deviation: 2.5
Sample EGRA Results[b]	Where:	Central			26% zero scores
	Who:	927 P3 students		Reading Comprehension:	6% reading with ≥80% comprehension
					38% zero scores

The study found that the availability of reading materials at home and access to textbooks in the classroom are important predictors of achievement in literacy.

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P3 = Primary Grade 3. Percentages are rounded.
[a] Source: UNESCO (2015).
[b] Source: Piper (2010).

Language

Number of Living Languages [a]: 41

Major Languages[b]	Estimated Population[c]	Government Recognized Status
English	2.5 million (L2) (2003)	"Official"[d] language
Kiswahili	313,000 (L1) (2015) 33.8 million (L2) (2015)	"Official"[f] language
Ganda (i.e., Luganda)	4.1 million (L1) (2002) 1 million (L2) (1999)	LWC
Acholi, Chiga, Lango, Masaaba, Nyankore, Soga, and Teso	1.1–2.3 million (L1) (2002)	
Adhola, Alur, Konzo, Kumam, Lugbara, Ng'akarimojong, Nyoro, Pokoot, and Talinga-Bwisi	69,000–797,000 (L1) (2002-2004)	

Note: L1 = first language; L2 = second language; LWC = language of wider communication.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[c] Source: Lewis et al. (2015). The dates for the speaker population estimates are provided in parentheses.
[d] Source: Article 6, Section 1 of the Uganda Constitution.
[f] Source: Article 6, Section 2 of the Uganda Constitution.

Uganda Findings in Brief:

In 2007, the Government of Uganda launched the Thematic Curriculum, which currently mandates instruction in one of 12 local languages in early primary, with transition into English in Primary Grade 4. The study surveyed 786 titles in 33 languages. Although nearly one-fourth of the materials were published in Ganda, 18 additional languages had 10 or more titles each. The Uganda inventory stood apart from other countries in the survey in that textbook-related materials outnumbered supplementary materials at approximately a 2:1 ratio, and the supplementary materials were concentrated at the lowest reading difficulty as measured by words per page. Nonetheless, textbooks designated for the pre-primary level were almost nonexistent. The available reading materials can also be described as generally appropriate for early grade readers in terms of content themes, familiarity, and representation of gender, ethnicity, and religion, though people with disabilities were largely unrepresented. A majority of the materials (86 percent) were copyrighted, but 38 percent were explicitly granted some permissions for reuse, more than any other country in the study, thanks primarily to 213 titles provided by the African Storybook Project in Ugandan languages. Excluding those titles, commercial publishers contributed the most to the inventory.

1. Language in Education Policy in Uganda

While declaring English and Kiswahili as the official languages of Uganda, Article 6, Section 3 of the amended Constitution of the Republic of Uganda states that "… any other language may be used as a medium of instruction in schools or other educational institutions or for legislative, administrative or judicial purposes as Parliament may by law prescribe."

Early grade reading materials in Ugandan languages have been available since before Uganda's independence. The early work of missionaries led the production of these materials in the 1880s.

In the missionaries' quest to spread Christianity, they established literacy in languages in which the Bible was translated. The teaching of English was equally important because the colonial government needed clerks to facilitate the colonial administration (Tembe, 2006).

Later on, Luganda, Luo, Ng'akarimojong, Nyankore, Nyoro, and Teso and were taught from Primary Grades 1–6 as a subject until 1966.[1] These languages were selected partly because orthographies and materials had previously been produced by the missionaries. The need to develop a language policy for Uganda motivated the Education Policy Review of 1987–1989 to recommend that mother tongues be used as a medium of instruction in all educational programs up to Primary Grade 4. In 1992, the Government of Uganda adopted a mother tongue policy for public schools.

In 2007, the Government of Uganda introduced a thematic curriculum, consisting of 12 themes that are familiar to students, and directed that students be instructed in a Ugandan language from Primary Grades 1–3. During Primary Grade 4, the language of instruction (LOI) shifts from the Ugandan language to English (National Curriculum Development Centre, 2015).

According to a U.S. Agency for International Development (USAID) study in 2010, there is a high level of adherence to the LOI policy during these first three years of primary school (Piper, 2010). However, the study revealed that, in practice, teachers are not trained to teach in Ugandan languages and that the school environments are often multilingual, making it difficult to determine which language to use. Also, national examinations are conducted in English. Consequently, teachers do not stress education in the Ugandan languages (Piper, 2010). Also, several years after the adoption of the new curriculum, a survey was undertaken in 2013 by the Ministry of Education and Sports. The survey results indicated that there was still a lack of English and Ugandan language literacy materials in children's hands at the schools (Education Planning and Policy Analysis Department, 2013).

2. Data Collection

The data collectors surveyed a total of 786 titles, most of which were found in Kampala. Publishers provided most of the materials (456 titles [58 percent]), but 62 titles (eight percent) also came from libraries. The National Library of Uganda, another major stakeholder for reading materials, is mandated to keep a copy of each publication in the country, making the library a good source of material that is out of print. The data collectors obtained a total of 213 titles (27 percent) from the South African Institute for Distance Education's (SAIDE's) African Storybook Project.

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[1] This information came from Mr. Samuel Muwonge, the Inspector of Schools for the Buganda Region in 1961.

3. Findings

A. Availability of Materials for Early Grade Reading in Ugandan Languages

Materials by Language

The data collectors encountered titles in 32 African languages and one European language (English). **Table J-1** presents the number of titles and publishers found for each language and the size of each language group.

The largest number of titles (182) were found in Ganda (also called Luganda), which constituted nearly one-fourth of the inventory and had more than twice as many titles as the next highest language, Lugbara, with 82 titles, followed by Lango (72 titles) and Nyole (67 titles).

English is an official language and is spoken as a second language by an estimated 2.5 million Ugandans (Lewis et al., 2015). Although many materials exist in English, the focus of the study was on African language materials. Materials in English were considered only if they were bilingual with an African language or in a shell book (i.e., a book intended and authorized for adaptation and/or translation into other languages).

Materials were encountered in three languages listed in the *Ethnologue* (Lewis et al., 2015) as being indigenous to neighboring Kenya: Dholuo, Lubukusu, and Oluluyia. However, Oluluyia is commonly used as a second language by many Teso speakers.

Most of the titles surveyed (94 percent) were monolingual; only six percent were bilingual, and less than one percent were written in three or more languages. All titles were written in Latin-based scripts.

Table J-1. Languages in Which Reading Materials Were Found in Uganda

	Language[a]	Language ISO 639-3 Code[b]	Estimated Population of Speakers in Uganda[c]	Titles per Language	Percentage of Titles Surveyed[d]
1	Ganda	lug	4,130,000	182	23.1%
2	Lugbara	lgg	797,000	82	10.4%
3	Lango	laj	1,490,000	72	9.1%
4	Nyole	nuj	341,000	67	8.5%
5	English	eng	2,500,000 (L2)	47	6.0%
6	Teso	teo	1,570,000	46	5.8%
7	Masaaba	myx	1,120,000	45	5.7%
8	Konzo	koo	609,000	36	4.6%
9	Nyoro	nyo	667,000	32	4.1%
10	Nyankore	nyn	2,330,000	30	3.8%
11	Soga	xog	2,060,000	27	3.4%
12	Acholi	ach	1,170,000	25	3.2%

	Language[a]	Language ISO 639-3 Code[b]	Estimated Population of Speakers in Uganda[c]	Titles per Language	Percentage of Titles Surveyed[d]
13	Aringa	luc	300,000	23	2.9%
14	Gwere	gwr	409,000	23	2.9%
15	Chiga	cgg	1,580,000	21	2.7%
16	Gungu	rub	49,000	15	1.9%
17	Kumam	kdi	174,000	12	1.5%
18	Ng'akarimojong	kdj	736,000	12	1.5%
19	Dholuo	luo	4,044,000 in native Kenya	10	1.3%
20	Talinga-Bwisi	tlj	68,500	10	1.3%
21	Ma'di	mhi	356,000	4	0.5%
22	Alur	alz	617,000	3	0.4%
23	Adhola	adh	360,000	2	0.3%
24	Kupsapiiny	kpz	181,000	2	0.3%
25	Leb Thur[b]	Not applicable	Unknown	2	0.3%
26	Kinyarwanda (i.e., Fumbira)	kin	449,000	1	0.1%
27	Ik	ikx	7,500	1	0.1%
28	Kuku[e]	Not applicable	60,000	1	0.1%
29	Lubukusu	bxk	1,433,000 in native Kenya	1	0.1%
30	Oluluyia	luy	5,084,800 in native Kenya	1	0.1%
31	Runyakitara[f]	Not applicable	Not applicable	1	0.1%
32	Kiswahili	swh	2,330	1	0.1%
33	Tooro	ttj	488,000	1	0.1%

Note: ISO = International Organization for Standardization; L2 = second language.
[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al., 2015. The dates of the speaker population estimates vary by language, but most of them date from 2002.
[d] Leb Thur, a small Ugandan language, does not have an ISO 639-3 code.
[e] Kuku is a language used in northern Uganda and southern Sudan. Kuku is a member of the Bari (bfa) language family, but does not have an International Organization for Standardization (ISO) 639-3 code of its own.
[f] Runyakitara is a hybrid of Chiga and Tooro (Lewis et al., 2015).

Types of Materials

Table J-2 details the types of materials found and by language. Key observations include the following:

- 515 titles (66 percent) were literacy textbooks or related materials compared to 271 (34 percent) supplementary, non-textbook titles.

- The majority of literacy textbook-related titles (469 [91 percent]) were student textbooks or primers.
- Student textbooks (469) outnumbered teacher's guides (45) by ratio of more than 10:1.
- The data collectors found only one student literacy workbook.
- The majority of supplementary, non-textbook titles (228 [84 percent]) were narrative. All other types (e.g., informational, reference, poetry) were rare, with fewer than 20 titles each.
- Four languages (i.e., Ganda, Lugbara, Masaaba, and Nyole) together accounted for the majority of all narrative titles (89 percent).
- English was used as a second language in 44 titles (six percent) with 17 different languages.

Table J-2. Number of Different Types of Materials Identified, by Language

Languages[a]	Textbook-Related					Supplementary/Non-textbook							
	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry. etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Acholi	23	—	—	23	2.9%	—	—	—	—	0	0.0%	23	2.9%
Acholi/English	—	—	2	2	0.3%	—	—	—	—	0	0.0%	2	0.3%
Adhola	1	—	—	1	0.1%	—	—	1	—	1	0.1%	2	0.3%
Alur	2	—	1	3	0.4%	—	—	—	—	0	0.0%	3	0.4%
Aringa	17	1	4	22	2.8%	1	—	—	—	1	0.1%	23	2.9%
Chiga	13	—	1	14	1.8%	2	—	1	3	6	0.8%	20	2.5%
Chiga/English	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Chiga/English/ Kiswahili	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
English	—	—	—	0	0.0%	3	—	—	—	3	0.4%	3	0.4%
Fumbira	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Ganda (Luganda)	90	—	—	90	11.5%	68	13	1	5	87	11.1%	177	22.5%
Ganda/English	—	—	3	3	0.4%	1	—	—	—	1	0.1%	4	0.5%
Gungu	13	—	—	13	1.7%	2	—	—	—	2	0.3%	15	1.9%
Gwere	19	—	2	21	2.8%	1	—	—	—	1	0.1%	22	2.8%
Gwere/English	—	—	1	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Konzo	28	—	—	28	3.6%	1	—	—	3	4	0.5%	32	4.1%
Konzo/English	—	—	1	1	0.1%	—	—	3	—	3	0.4%	4	0.5%
Kuku	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Kumam	11	—	1	12	1.5%	—	—	—	—	0	0.0%	12	1.5%
Kupsapiiny English	2	—	—	2	0.3%	—	—	—	—	0	0.0%	2	0.3%
Lango	60	—	2	62	7.9%	5	—	1	—	6	0.8%	68	8.7%
Lango/English	—	—	4	4	0.5%	—	—	—	—	0	0.0%	4	0.5%
Lebthur	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Lugbara	27	—	—	27	3.4%	45	2	—	—	47	6.0%	74	9.4%
Lugbara/English	4	—	2	6	0.8%	—	—	1	—	1	0.1%	7	0.9%
Lugbara/Ganda	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Luo	2	—	—	2	0.3%	—	—	—	—	0	0.0%	2	0.3%
Luo/English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Lwo	7	—	—	7	0.9%	—	—	—	—	0	0.0%	7	0.9%
Ma'di	3	—	1	4	0.5%	—	—	—	—	0	0.0%	4	0.5%
Masaaba	3	—	—	3	0.4%	39	—	—	—	39	5.0%	42	5.3%
Masaaba/English	—	—	2	2	0.3%	1	—	—	—	1	0.1%	3	0.4%
Ng'akarimojong	10	—	1	11	1.4%	—	—	—	—	0	0.0%	11	1.4%
Ng'akarimojong/ English	—	—	1	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Nyankore	21	—	1	22	2.8%	3	—	1	—	4	0.5%	26	3.3%
Nyankore/English	—	—	3	3	0.4%	—	—	—	—	0	0.0%	3	0.4%
Nyole	12	—	1	13	1.7%	47	3	—	—	50	6.4%	63	8.0%
Nyole/English	—	—	1	1	0.1%	1	—	—	—	1	0.1%	2	0.3%
Nyole/Oluluyia	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Nyoro	29	—	1	30	3.8%	—	—	—	—	0	0.0%	30	3.8%
Nyoro/English	—	—	1	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Nyoro/Tooro	—	—	1	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Runyakitara	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Soga	18	—	—	18	2.3%	4	—	1	1	6	0.8%	24	3.1%
Soga/English	1	—	1	2	0.3%	—	—	1	—	1	0.1%	3	0.4%

Languages[a]	Textbook-Related					Supplementary/Non-textbook							
	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	Percentage of Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Talinga-Bwisi	8	—	—	8	1.0%	1	—	—	—	1	0.1%	9	1.1%
Talinga-Bwisi/ Lubukusu	—	—	—	0	0.0%	—	—	—	1	1	0.1%	1	0.1%
Teso	39	—	3	42	5.3%	1	—	—	—	1	0.1%	43	5.5%
Teso/English	—	—	3	3	0.4%	—	—	—	—	0	0.0%	3	0.4%
Total	469	1	45	515	65.5%	228	18	12	13	271	34.5%	786	100.0%

Note: Percentages may not sum exactly to 100% because of rounding.
[a] Languages are presented in alphabetical order. Most languages go by several different names; several languages have the same name. In case of confusion, refer to the language International Organization for Standardization (ISO) code and the *Ethnologue* at www.ethnologue.com.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The 515 textbook-related materials were analyzed with regard to their pedagogical components. The most common components of the materials were vocabulary development and/or exercises (392 [76 percent]) and reading passages (330 [64 percent]), though fewer than half as many titles (149 [29 percent]) contained accompanying comprehension questions (**Figure J-1**). The least common component was grammar instruction and/or exercises, appearing in only 29 (six percent) of the titles. Less than one-third of the titles (141 [27 percent]) used what could be construed as a phonics approach to reading instruction.[2]

Figure J-1. Pedagogical components in textbook-related materials
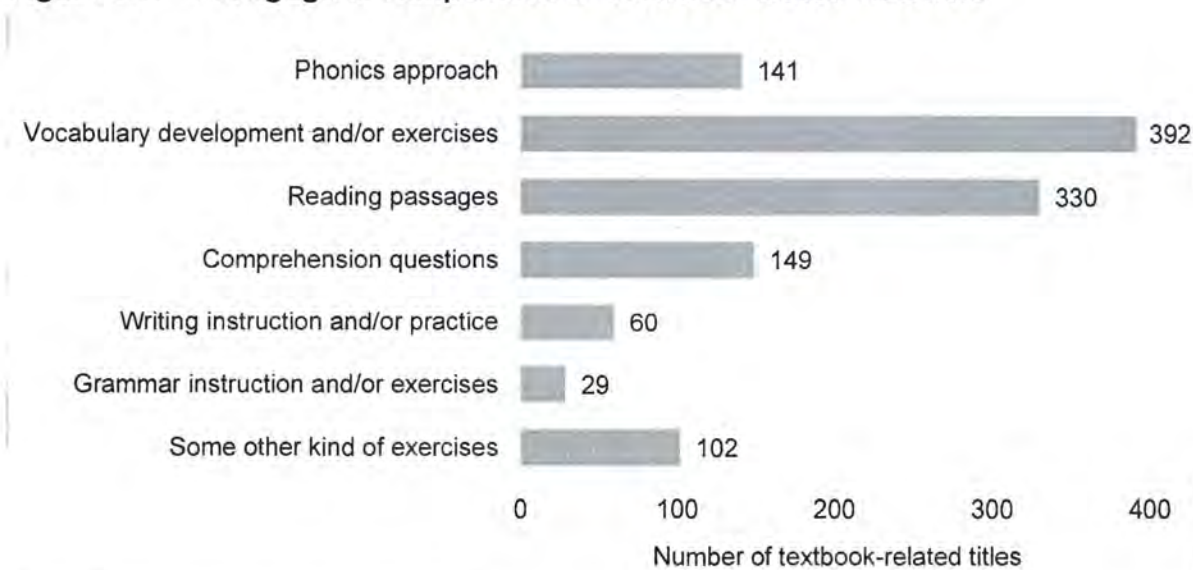
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Out of the 515 titles that were textbooks and related materials, 350 were explicitly labeled for a grade level. The highest number of titles (i.e., 174) were labeled for Primary Grade 1, followed by Primary Grade 2 (i.e., 119), followed by a drop in number of titles at the Primary Grade 3 level (i.e., 39) and beyond (**Figure J-2**). Although the survey targeted kindergarten through Primary Grade 3 materials, the data collectors included materials that were designated for higher primary grades if they judged them to be potentially useful in lower grades. In this case, the data collectors included 26 titles designated for Primary Grade 4. However, they found only two titles

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[2] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

for preschool, nursery, and kindergarten, even though these levels were specifically targeted as part of the study.

Figure J-2.   Publisher-designated levels for textbook-related materials
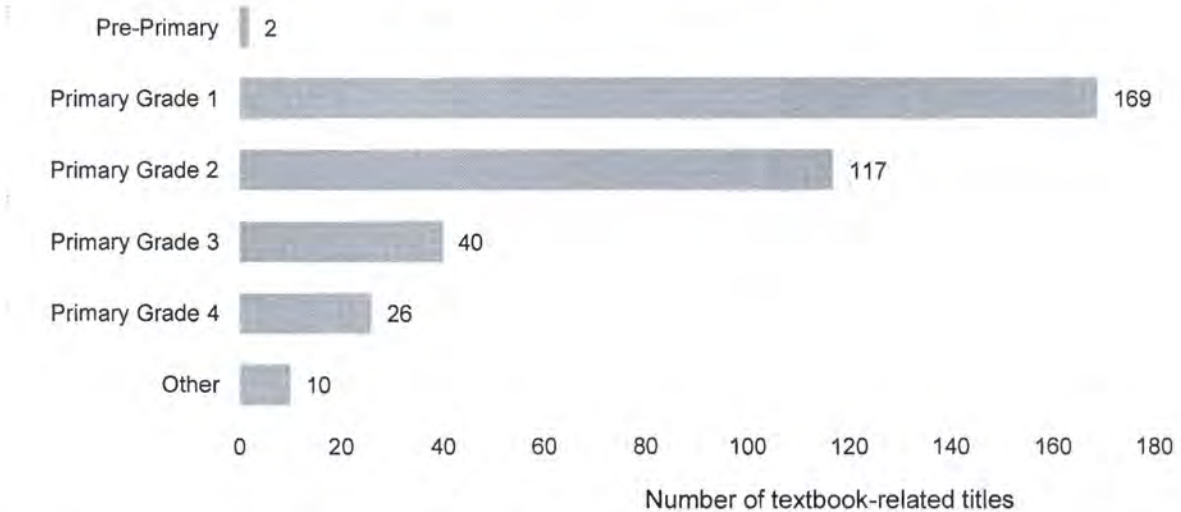
Note: Multiple responses were possible per title.

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this count for 238 narrative and informational texts.

In contrast to the results in most other countries in this study, a slightly greater number of the non-textbook titles (**Figure J-3**) were written at the lowest reading levels (e.g., 1–10 wpp) than at the higher levels.

Figure J-3. Number of narrative and informational non-textbook titles by maximum words per page

1-10 Words per page	61 / 10
11-25 Words per page	40 / 4
26-50 Words per page	49
51-75 Words per page	38
>75 Words per page	32 / 4

Number of non-textbook titles

■ Narrative   Informational
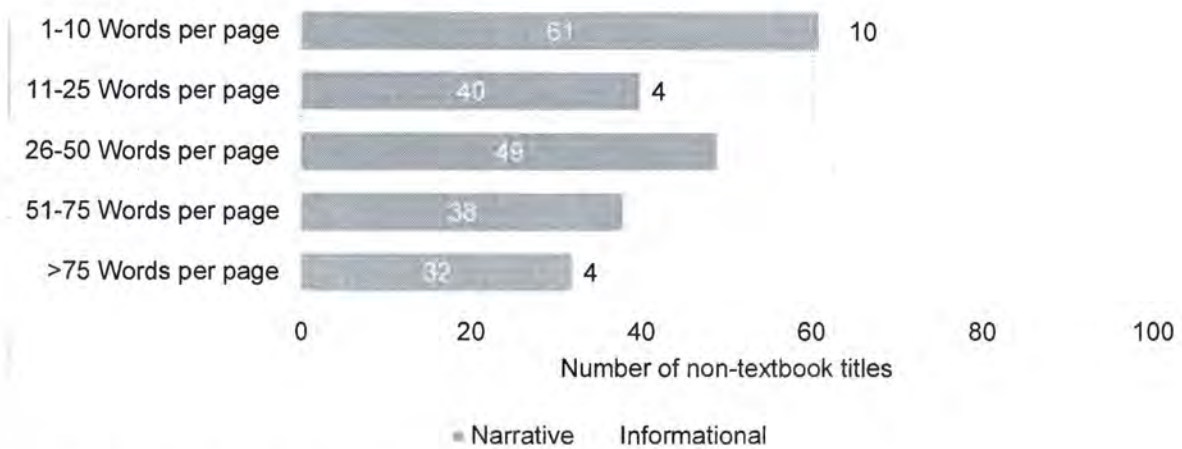
Note: This calculation was not performed for poetry or reference titles.

Illustrations

Most of the books surveyed (729 [93 percent]) were illustrated (**Figure J-4**). The most common type of illustration (i.e., black and white and/or grayscale) was used in 354 of the titles (45 percent), but nearly the same number of titles (335 [43 percent]) appeared in full color. Both commercial and nonprofit publishers used both types of illustrations.

Figure J-4. Presence and type of illustrations

Is the book illustrated?

No, 7%

Yes, all B&W and/or grayscale, 45%

Yes, all color, 43%

Yes, some B&W and some color, 5%
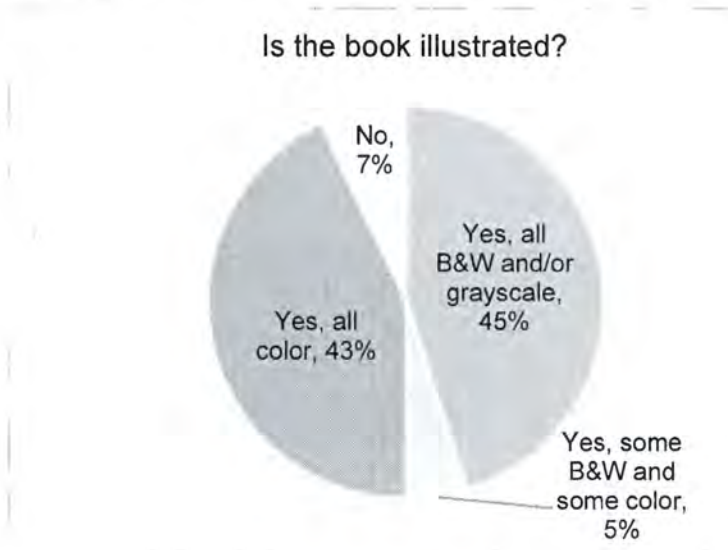
Content Themes

The data collectors examined 729 of the titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts and/or illustrations and checked off the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in Figure J-5.

The most common theme was morals/values, appearing in 352 titles (46 percent), followed closely by home life (343 [45 percent]), family (300 [39 percent]), and education/school (283 [37 percent]). The least common themes found in the surveyed titles were media (with one [less than one percent]), energy (with two [less than one percent]), and biography (with three [one percent]).

Out of the 729 titles reviewed for content themes, the data collectors found 101 (13 percent) with religious content, 96 titles with references to Christianity, and 32 with references to Islam (30 of referenced both religions).

Figure J-5. Content themes

Theme	Number of titles
Adventure	44
Agriculture	127
Alphabet	63
Animals	269
Biography	3
Business	77
Careers/Professions/Jobs/Work	45
Colors or Shapes	4
Community	184
Culture	164
Education/School	283
Energy	2
Environment	91
Family	300
Food/Nutrition	140
Friendship	93
Health/Personal Hygiene	167
History	7
Holidays/Celebrations	25
Home Life	343
How-to/Skill Development	102
Human Body	48
Humor	101
Media	1
Morals/Values	352
Numeracy/Counting/Math	41
Peace/Justice/Equality/Human Rights	29
Plants	62
Religion	101
Safety	81
Science	11
Social Studies/Civic Education	64
Technology	17
Travel/Transportation	147
Weather	61

Number of titles

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 729 titles for the familiarity of the content for the target audience (i.e., a typical child who was a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. The data collectors judged 567 titles (78 percent) as containing "very familiar" content, 125 titles (17 percent) as containing "semi-familiar" content, and 21 titles (three percent) as containing "mostly unfamiliar" content for the target audience.

The data collectors reviewed the illustrations of 729 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, sexual content, and other known cultural taboos (**Figure J-6**). The data collectors did not find any potentially sensitive content for the majority of the titles (655 [90 percent]) evaluated for this item. As shown in Figure J-6, the most common types of content flagged for its potentially sensitive nature was a traumatic event, which appeared in 30 titles (four percent), and gore, which appeared in 13 titles (two percent). The other categories were relatively rare, occurring in fewer than 10 titles each.

Figure J-6. Potentially sensitive content in the illustrations
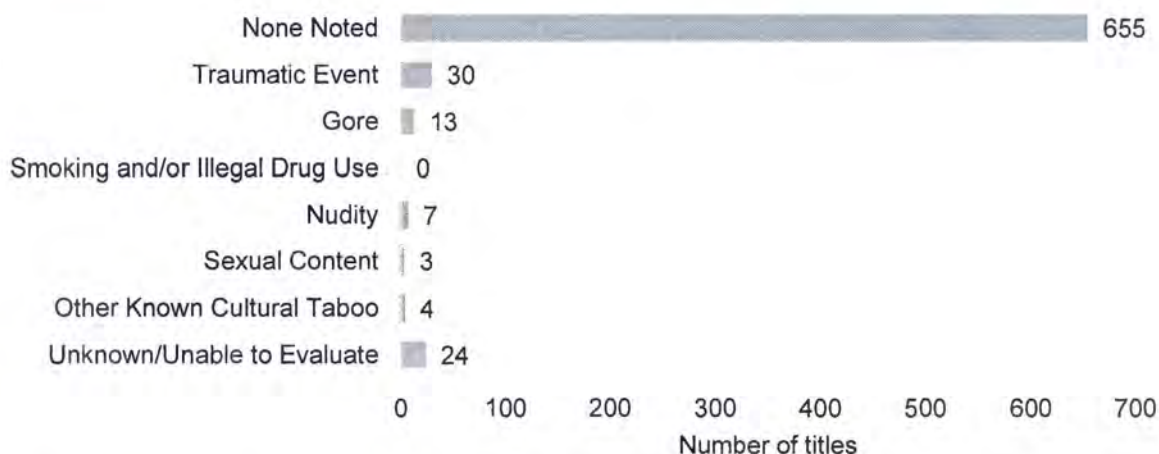
Note: Multiple responses were possible per title.

Frequency and Equality of Representation

The data collectors examined a subset of the materials for the frequency and equality of representation of people in the illustrations according to gender, ethnic and/or religious group identity, and disability. The data collectors did not evaluate all titles for these questions; exclusions included reference materials and titles that were not illustrated with humans or anthropomorphic animals.

Gender

The data collectors examined the illustrations in 570 titles for the frequency of representation of each gender and determined that gender was not apparent in 58 titles (10 percent), further

limiting the subset of materials evaluated for this item. Of the remaining 512 titles, the data collectors perceived 417 (81 percent) of them to portray an overall balance of both genders, and 59 (12 percent) to portray primarily male characters versus 36 (seven percent) that portrayed primarily female characters (**Figure J-7**).

Figure J-7. Frequency of gender representation in the illustrations
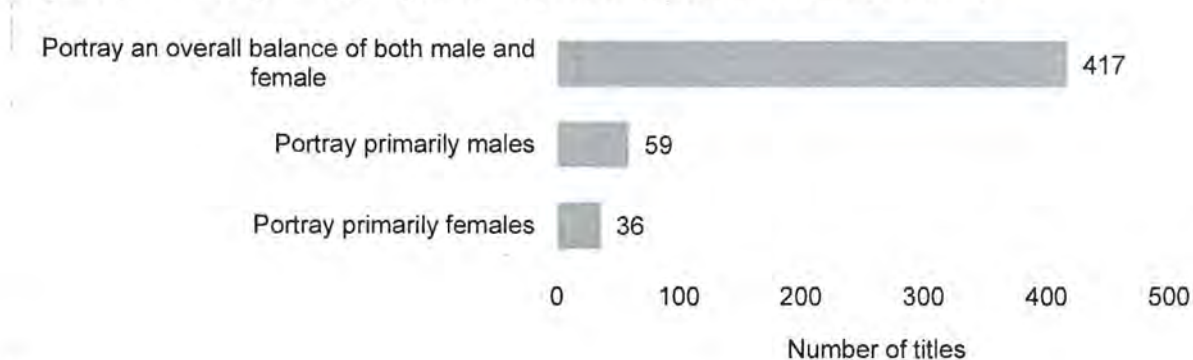
In addition, for 511 titles, the data collectors evaluated whether the illustrations portrayed male and female characters with "equal skills, knowledge, accomplishments, or roles." The data collectors judged that the male and female characters were portrayed comparably in 402 (79 percent) of these titles and were unequally represented in 16 titles (three percent). For the remaining 93 titles (18 percent), the data collectors considered that there was an insufficient basis for comparison.

Ethnic and Religious Group Identity

Similarly to gender, the data collectors examined the illustrations of 570 titles for the frequency of representation of different ethnic and/or religious group members, when apparent. Out of those titles, 370 (65 percent) were deemed to not portray characters with obvious ethnic or religious group identity markers (**Figure J-8**). Of the 200 titles that did, 64 titles (32 percent) were judged to portray exclusively one ethnic or religious group but in cases where the data collectors judged that the target population was composed overwhelmingly of that group. The data collectors judged 73 titles (37 percent) as portraying different groups proportionally to their presence in the population. Lastly, the data collectors judged 53 titles (27 percent) as portraying one group to the exclusion of another group present in the target population.

For the overwhelming majority of titles, the data collectors judged that there was an insufficient basis for comparison of the nature of the portrayal, if any, of ethnic or religious groups in the illustrations. The data collectors were able to evaluate only 90 titles for the question of whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles." Of those titles, the data collectors judged that 80 (89 percent) portrayed the different groups comparably, versus 10 (11 percent) that portrayed them unequally.

Figure J-8. Frequency of ethnic/religious group representation in the illustrations
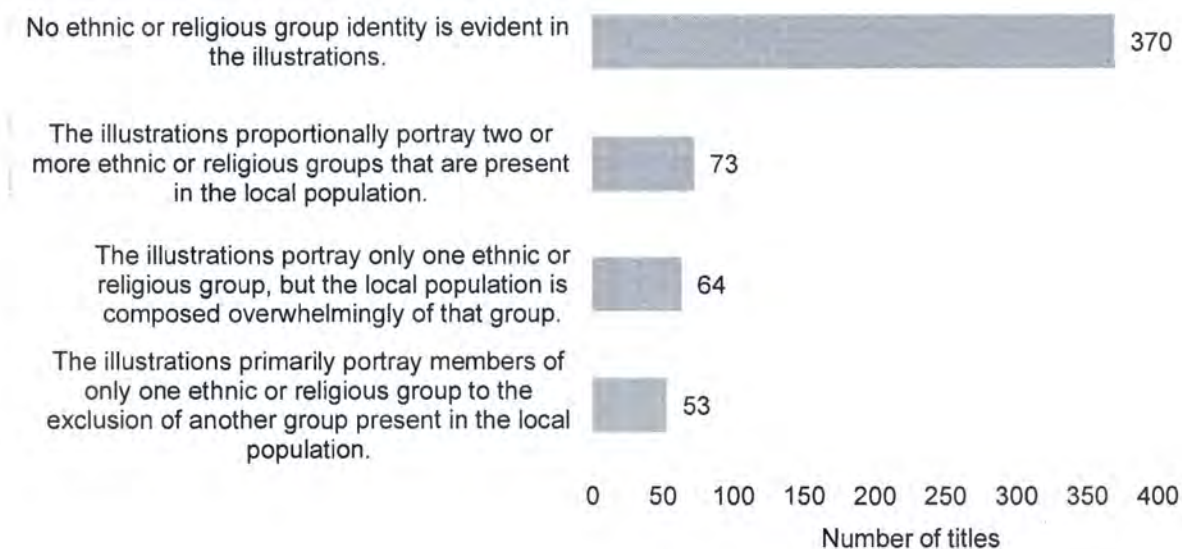
	Number of titles
No ethnic or religious group identity is evident in the illustrations.	370
The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population.	73
The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group.	64
The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population.	53

Disability

The data collectors also examined the illustrations of 570 titles for the frequency of representation of people with disabilities. The majority of the materials examined (514 [90 percent]) lacked any illustrations of people with any type of disability (**Figure J-9**). Of the 56 titles that illustrated people with disabilities, 21 (38 percent) came from USAID–sponsored or nonprofit–published materials. The remaining 35 (63 percent) came from commercial, for-profit publishers.

When people with disabilities were represented in the illustrations, the data collectors judged all but six titles (11 percent) as portraying people with disabilities "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

Figure J-9. Frequency of the representation of people with disabilities in the illustrations
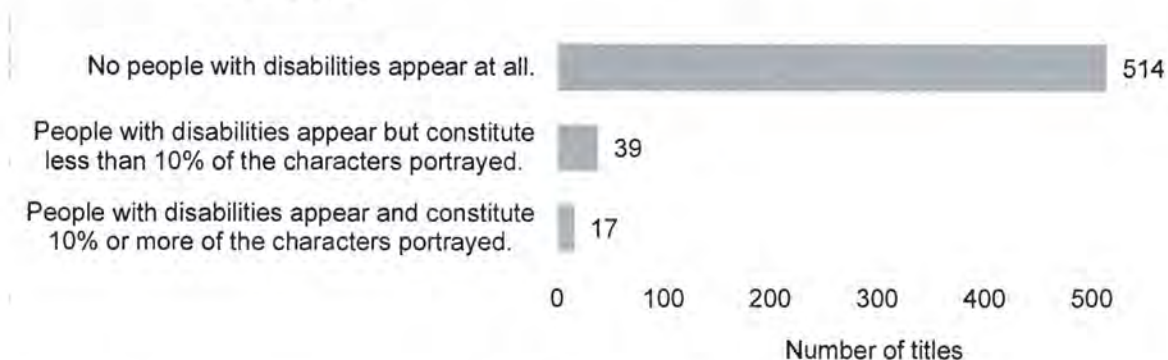
Category	Number of titles
No people with disabilities appear at all.	514
People with disabilities appear but constitute less than 10% of the characters portrayed.	39
People with disabilities appear and constitute 10% or more of the characters portrayed.	17

Number of titles (0 100 200 300 400 500)

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

The majority of titles surveyed (i.e., 678 [86 percent]) contained the copyright symbol. Regarding explicit statements about restrictions or permissions for reuse, 333 titles (42 percent) contained an explicit statement along the lines of "All Rights Reserved," 279 titles (36 percent) granted some permissions for reuse (most with a Creative Commons license), and the remaining 168 titles (21 percent) did not contain any explicit statements either way. However, the Creative Commons license was not used by Ugandan publishers. The 213 titles (27 percent) that contained these licenses all came from SAIDE's African Storybook Project.

Medium

The data collectors inventoried 525 hard-copy titles and 261 soft-copy titles. The soft-copy materials all came from SAIDE's African Storybook Project or from USAID.

D. Landscape of the Production of Children's Reading Materials in African Languages in Uganda

Publisher Types

Uganda has a well-established publishing sector. The survey captured materials from 71 different publishers. As shown in **Figure J-10**, an approximately even number of titles came from either private commercial publishers (i.e., 325 [41 percent]) or private nonprofit organizations (i.e., 362 [46 percent]); however, 213 (27 percent) of the nonprofit titles were from SAIDE's African Storybook Project, located outside of Uganda, leaving only 149 titles (19 percent) from nonprofits based inside Uganda. SIL International, both a nonprofit and a faith-based organization, accounted for 81 titles (10 percent). The largest number of titles from a commercial publisher came from Fountain Publishers (58 titles [seven percent]), followed by Baroque Publishers (56 titles [seven percent]), Macmillan Publishers Limited (48 titles [six percent]), MK Publishers Limited (24 titles [three percent]), and Pearson Education Limited (22 titles [three percent]). Bilateral donors supported the publication of 49 (six percent) of the surveyed titles, all of which came from USAID programming.

Figure J-10. Number of titles by publisher type
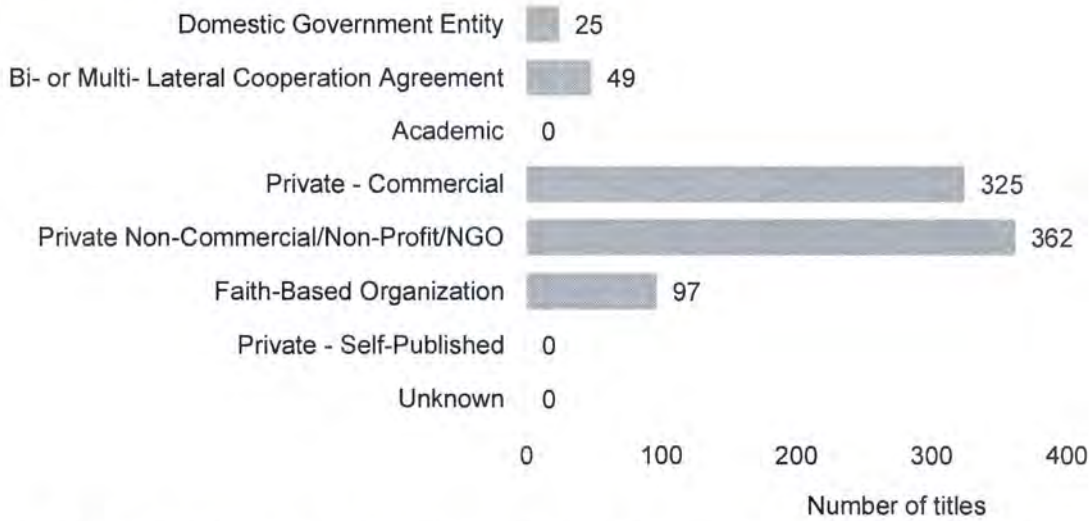
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations represented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

The inventory surveyed was relatively recent. Most of the titles (632 [80 percent]) were published in the past 15 years, but even more (i.e., 323 [41 percent]) in the past five years than in the decade before that (i.e., 309 [39 percent]) (**Figure J-11**). The year of publication was unknown for 107 titles (14 percent). The implementation of the Thematic Curriculum in 2007 and the shift to Ugandan language instruction in the lower primary grades has increased the need for instructional materials in these languages.

Figure J-11. Year of publication
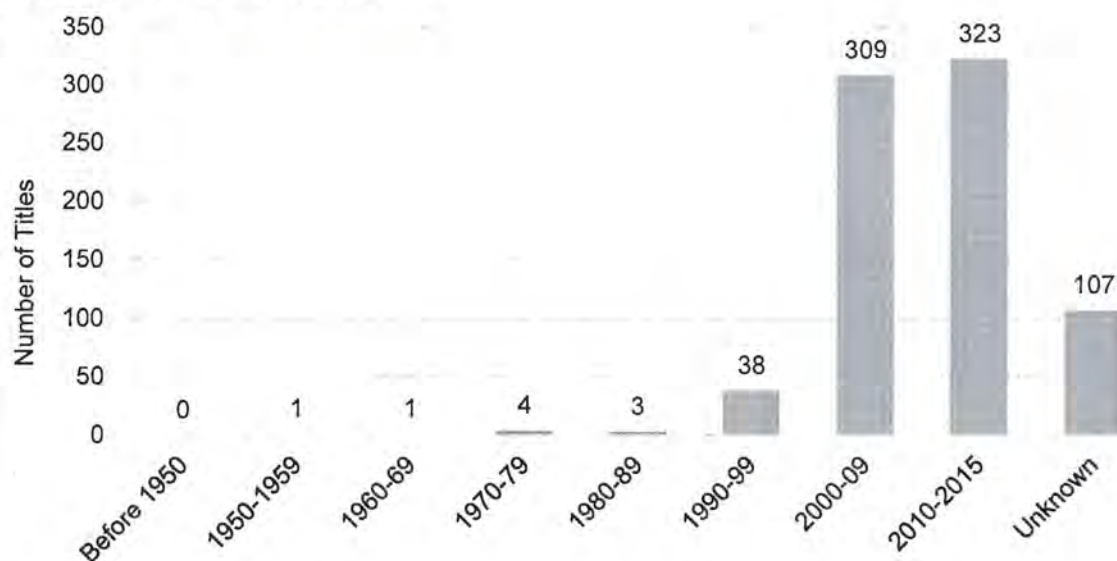
International Standard Book Number

Almost two-thirds of recorded materials (503 [64 percent]) did not have an International Standard Book Number (ISBN), but this percentage is heavily influenced by the soft-copy materials, all of which came from non-Ugandan publishers, and none of which had an ISBN. When considering only the 525 hard-copy titles, 283 (54 percent) of titles had an ISBN. The data collectors noted some irregularities concerning the ISBNs, including that that some were hand written, some titles shared the same ISBN, and some had a nine-digit ISBN instead of the required 10- to 13-digit number.

Price

Slightly less than half of the 525 hard-copy titles (i.e., 228 [43 percent]) had a known price; these titles came almost exclusively from commercial publishers. Of these titles, 18 (eight percent) were marked as free (**Table J-3**); the others ranged from $0.18 (U.S. dollars [USD]) to $7.35, with an overall average price of $1.84. Reference materials were the most expensive type of item surveyed, with an average price of $3.53.

All 213 of the soft-copy titles from SAIDE's African Storybook Project are available for free online.

Table J-3. Price of Hard-Copy Materials by Book Type

Book Type	Number Recorded as Free	Number Recorded with Price >$0.00	Average Price in USD[a] for Nonfree Materials	Range
Textbook-Related:				
Student textbook	18	180	$1.91	$0.18–$4.90
Student workbook	0	0	0	Not applicable
Teacher's manuals	0	2	$1.75	$1.05–$2.45
Decodable book	0	1	$1.33	Not applicable
Supplementary:				
Narrative	0	10	$1.21	$0.70–$1.89
Informational	0	4	$1.48	$1.05–$1.75
Reference	0	6	$3.53	$0.70–$7.35
Poetry, etc.	0	8	$1.69	$0.70–$2.31
All titles	**18**	**210**	**$1.84**	**$0.18–$7.35**

[a] To compute the price in U.S. dollars (USD), a conversion rate of 1 Ugandan shilling (UGX) = 0.00035 USD was used.

4. Remarks

Language Use

There are several language-based indirect factors that affect the availability of and access to early grade reading materials in local languages. Some of the factors indicated in a personal communication from the National Curriculum Development Centre include negative attitudes toward mother-tongue instruction from parents and a belief that English promotes unity, whereas local languages intensify tribalism. Specific to commercial publishing, the low profitability of producing material for less common languages provides a disincentive for publishers to produce material for these language communities.

Piracy and Copyright Infringement

Although Uganda passed its Copyright and Neighbouring Rights Act in 2006, piracy is still widespread in the country. In addition, titles are copied and illegally sold at cheaper prices, creating an environment in which it is more difficult for publishers to make a profit. Many stakeholders hope that the Global Book Fund will support advocacy campaigns against piracy and will simultaneously support the enforcement of the Copyright and Neighbouring Rights Act of Uganda.

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Annex K. Summary of the Early Grade Reading Materials Survey in Zambia

Geography and Demographics

Size:	752,618 square kilometers (km²)
Population:	15 million (2015)
Capital:	Lusaka
Urban:	41% (2015)
Administrative Divisions:	10 provinces
Religion:	75% Protestant 20% Roman Catholic 3% Other 2% None

Source: Central Intelligence Agency (2015).

Note: Population and percentages are rounded.

Literacy

Projected 2015 Literacy Rates:[a]	Overall	Male	Female	2013 Primary School Age Population (aged 7–13):[a]	2.8 million
Adult (aged >15 years)	63%	71%	56%	2013 Primary GER:[a]	108%, up from 84% in 1999
Youth (aged 15–24 years)	66%	69%	62%	2013 Pre-primary GER:[a]	Data unavailable

Sample EGRA Results[b]	Language:	Bemba	Oral Reading Fluency:	Mean: 7.6 correct words per minute
	When:	2014		Standard deviation: 0.78
	Where:	Nationwide		52% zero scores
	Who:	4,855 P2 students	Reading Comprehension:	82% zero scores

Note: EGRA = Early Grade Reading Assessment; GER = Gross Enrollment Rate; P2 = Primary Grade 2. Percentages are rounded.
[a] Source: UNESCO Institute for Statistics (2015).
[b] Source: RTI International (2015).

Language

Number of Living Languages:[a] 42

Main Languages[b]	Estimated Population[c]	Government Recognized Status
English	110,000 (L1) (2003) 1.8 million (L2) (2003)	"Official" language
Bemba	3.8 million (L1)	de facto regional language and LWC

Nyanja	2.2 million (L1)	de facto regional language
Tonga	1.3 million (L1)	de facto regional language
Lozi	612,000 (L1)	de facto regional language
Lunda	225,000 (L1)	de facto regional language
Kaonde	206,000 (L1)	de facto regional language
Luvale	171,000 (L1)	de facto regional language

Note: L1 = first language; L2 = second language; LWC = language of wider communication.
[a] Source: Lewis et al. (2015).
[b] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[c] Source: Lewis et al. (2015). Unless otherwise noted, the dates for the speaker population estimates are from the 2010 census.

Zambia Findings in Brief:

Out of the 11 countries surveyed, Zambia is second only to Kenya in the number of reading material titles found (i.e., 881). The seven languages of wider communication—Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, and Tonga—are represented with the most materials found. Tonga ranks at the top of this list, although Bemba and Nyanja have higher speaker populations.

Data consultants found a large number of narrative supplementary materials and noted that their content is appropriate for early grade reading. This finding is encouraging because it means that local language materials are available beyond what is currently found in classrooms. Many student textbooks were also identified, which may point to an education and publishing sector that has taken seriously the recent policy change recommending local language instruction in early primary grades. Also of note, however, are the total lacks of textbook materials for preschool or kindergarten levels and of decodable readers, with only one title of such material found. Additionally, despite the high numbers of textbooks found, only slightly more than one-third were identified as containing a phonics approach to literacy instruction, which has been shown to be effective by literacy acquisition experts (NICHD, 2000). Overall, most titles were published in the past 15 years, with almost one-fourth being published since 2011.

A rise in commercial and non-governmental organization–sector publishing has occurred in recent years, likely because of an increased demand for local language materials. Virtually no titles were available for electronic transmission, and price data were very difficult to determine in the majority of cases.

1. Language in Education Policy in Zambia

Article 304, Section 23 of the Constitution of the Republic of Zambia names English as its official language, but adds that "a language, other than English, may be used as a medium of instruction in educational institutions or for legislative, administrative, or judicial purposes, as prescribed." Zambia's language in education policy is contained in the Zambia Education Curriculum Framework of 2013, produced by the Ministry of Education, Science, Vocational Training, and Early Education's Curriculum Development Centre (CDC). This policy, which was officially launched in 2014, recommends the use of familiar Zambian languages as the languages of instruction (LOIs) in preschool and the lower primary grades for Grades 1 through 4, with a

transition to English as the LOI starting in Grade 5 (Zambia Ministry of Education, Science, Vocational Training, and Early Education, 2013). The ideal situation is that this familiar language can be any of the many Zambian languages as long as it is understood by the majority of learners in any particular location. However, in most cases, the languages used are one of seven de facto regional languages—Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, and Tonga. To date, a study has not been conducted to determine the level of implementation of the language in education policy or the problems that may have been encountered in the process.

2.　Data Collection

The data collectors surveyed 881 titles. Most of the titles were encountered in Lusaka. The team contacted booksellers outside of Lusaka, but found that the materials in stock were from Lusaka-based publishers. Nearly half of the titles (403 [46 percent]) were obtained directly from publishers, followed by 215 (24 percent) from libraries.

3.　Findings

A. Availability of Materials for Early Grade Reading in Zambian Languages

Materials by Language

In all, 881 titles were surveyed in 21 languages: 18 African languages, one native to the Democratic Republic of the Congo (DRC), and two European (English and Portuguese), as shown in **Table K-1**. Although 836 titles (95 percent) were written in one of the seven regional lingua francas, one language did not dominate the inventory. Tonga had the highest number of titles (168 [19 percent]), and the bottom eight languages had only one title each.

As previously mentioned, although English enjoys official status in Zambia and many materials exist in English, this study focused on African language materials. Materials in English were considered only if they were bilingual with a Zambian language or, in rare cases (eight), were a reference grammar about a Zambian language. The one Portuguese title recorded was part of a multilingual book also written in Nyanja and Luba-Kasai. The vast majority of titles surveyed were monolingual (844 [96 percent]), 33 (four percent) were bilingual, and only four (less than one percent) were written in more than two languages. All the materials were written in Latin-based scripts.

Table K-1.　Languages in Which Materials Were Found in Zambia

	Language[a]	Language ISO 639-3 Code[b]	Estimated Population of Speakers in Zambia[c]	Titles per Language	Percentage of Titles Surveyed[d]
1	Tonga	toi	1,330,000	168	19.1%
2	Bemba	bem	3,810,000	159	18.0%
3	Nyanja	nya	2,180,000	146	16.6%
4	Lozi	loz	612,000	119	13.5%
5	Kaonde	kqn	206,000	96	10.9%

	Language[a]	Language ISO 639-3 Code[b]	Estimated Population of Speakers in Zambia[c]	Titles per Language	Percentage of Titles Surveyed[d]
6	Luvale	lue	171,000	76	8.6%
7	Lunda	lun	225,000	72	8.1%
8	English	eng	110, 000 (L1) (2003) 1,800,000 (L2) (2003)	44	5.0%
9	Lamba	lam	201,000	18	2.0%
10	Lenje	leh	128,000	4	0.5%
11	Lala-Bisa	leb	353,000	3	0.3%
12	Nkoya	nka	36,200	3	0.3%
13	Tumbuka	tum	366,000	2	0.2%
14	Luyana	lyn	2,880	1	0.1%
15	Mambwe-Lungu	mgr	207,000	1	0.1%
16	Nyamwanga	mwn	140,000	1	0.1%
17	Portuguese	por	Not applicable	1	0.1%
18	Zambian Sign Language	zsl	14,400	1	0.1%
19	Cokwe	cjk	17,700	1	0.1%
20	Luba-Kasai	lua	6,300,000 in native DRC	1	0.1%
21	Soli	sby	34,100	1	0.1%

Note: DRC = Democratic Republic of the Congo; ISO = International Organization for Standardization; L1 = first language; L2 = second language.
[a] Most languages go by several different names; several languages have the same name. In case of confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015).
[b] ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).
[c] Source: Lewis et al. (2015). Unless otherwise noted, the speaker population estimates are from the 2010 census.
[d] Due to bilingual titles, the total will surpass 100%.

Types of Materials

Table K-2 details the types of materials found by language. Key observations about these materials include the following:

- 281 (32 percent) were literacy textbooks or related materials, and 600 (68 percent) were supplementary, non-textbook titles.

- Of the 281 textbook-related materials, student textbooks were the most common (164 [58 percent]). Student textbooks outnumbered teacher's guides by slightly more than a 2:1 ratio, though this is lower than the average across the 11 countries in the study.

- Of the 600 supplementary titles, narratives were by far the most numerous type (498 [83 percent]).

Table K-2.   Number of Different Types of Materials Found, by Language

Languages[a]	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	% Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Bemba	27	8	23	58	6.6%	82	13	1	—	96	10.9%	154	17.5%
Bemba/English	—	—	—	0	0.0%	—	1	5	—	5	0.6%	5	0.6%
Cokwe/English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
English	—	—	1	1	0.1%	—	—	7	—	7	0.8%	8	0.9%
Ganda	1	—	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Kaonde	13	2	2	17	1.9%	73	6	—	—	79	9.0%	96	10.9%
Lala-Bisa/ English	—	—	—	0	0.0%	—	—	2	—	2	0.2%	2	0.2%
Lala-Bisa/ Lamba/English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Lamba	3	—	2	5	0.6%	5	3	—	—	8	0.9%	13	1.5%
Lamba/English	—	—	—	0	0.0%	—	—	4	—	4	0.5%	4	0.5%
Lenje	—	—	—	0	0.0%	2	1	—	—	3	0.3%	3	0.3%
Lenje/English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Lozi	27	1	14	42	4.8%	68	8	—	—	76	8.6%	118	13.4%
Lozi/English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Luba-Kasai/ English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Lunda	14	5	3	22	2.5%	46	3	—	—	49	5.6%	71	8.1%
Lunda/English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Luvale	14	1	4	19	2.2%	51	4	—	—	55	6.2%	74	8.4%
Luvale/English	—	—	—	0	0.0%	—	—	2	—	2	0.2%	2	0.2%
Luyana/ English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Mambwe- Lungu/ English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Nyanja	24	16	15	55	6.2%	74	6	1	1	82	9.3%	137	15.6%
Nyanja/English	—	—	1	1	0.1%	—	1	3	1	5	0.6%	6	0.7%

Languages[a]	Student Literacy Textbook	Student Literacy Workbook	Literacy Teacher's Guide	Subtotal	% Total Titles	Narrative	Informational	Reference	Poetry, etc.	Subtotal	Percentage of Total Titles	Total	Percentage of Total Titles
Nyanja/Tonga/ English	—	—	—	0	0.0%	2	—	—	—	2	0.2%	2	0.2%
Nyanja/ Portuguese	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Nkoya	2	1	—	3	0.3%	—	—	—	—	0	0.0%	3	0.3%
Nyamwanga	—	1	—	1	0.1%	—	—	—	—	0	0.0%	1	0.1%
Sign Language/ English	—	—	—	0	0.0%	—	—	—	—	0	0.0%	0	0.0%
Soli/English	—	—	—	0	0.0%	—	—	1	—	1	0.1%	1	0.1%
Tonga	37	6	11	54	6.1%	94	12	1	2	109	12.4%	163	18.5%
Tonga/English	—	—	—	0	0.0%	—	—	3	—	3	0.3%	3	0.3%
Tonga/ Tumbuka/ English	—	—	—	0	0.0%	—	1	1	—	2	0.2%	2	0.2%
Tumbuka	—	—	—	0	0.0%	1	—	—	—	1	0.1%	1	0.1%
Unknown	2	—	—	2	0.2%	—	—	—	—	0	0.0%	2	0.2%
Total	164	41	76	281	31.9%	498	59	39	4	600	68.1%	881	100.0%

Note: Percentages may not sum exactly to 100% because of rounding.

[a] Languages are presented in alphabetical order. Most languages go by several different names; several languages have the same name. In case of confusion, refer to the language International Organization for Standardization (ISO) code and the *Ethnologue* at www.ethnologue.com.

B. Usefulness of Available Materials for Early Grade Children

Pedagogical Components of Textbooks

The data collectors analyzed the 281 textbook-related materials with regard to their pedagogical components (**Figure K-1**). The most common components encountered were vocabulary development and/or exercises, in 250 titles (89 percent), and reading passages in 186 titles (66 percent). Fewer titles, however, contained accompanying comprehension questions (129 titles [46 percent]). The least common component encountered was grammar instruction and/or exercises. Only 104 titles (37 percent) used what could be construed as a phonics approach to reading instruction.[1]

Figure K-1. Pedagogical components in textbook-related materials
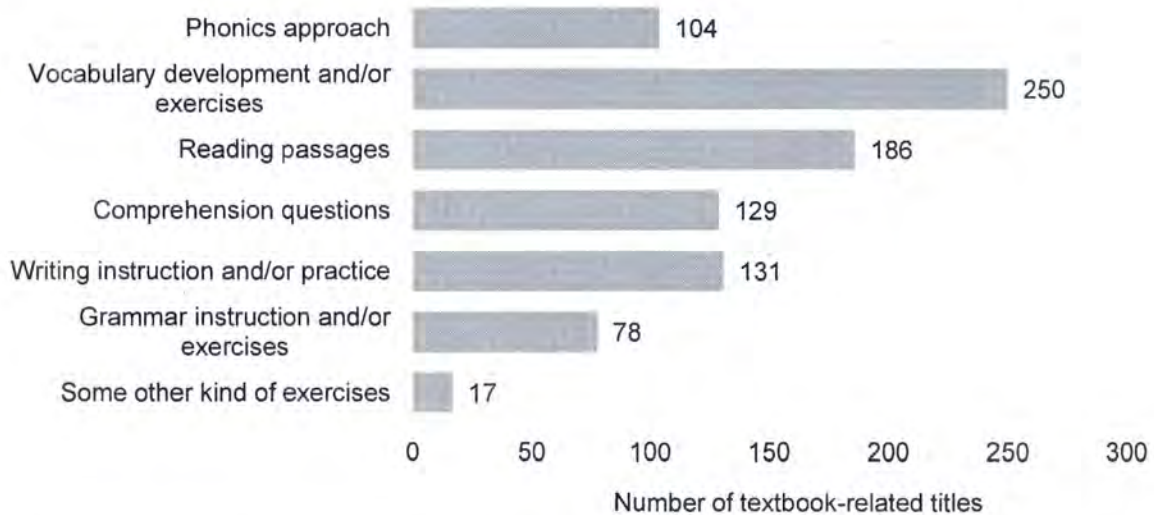
Note: Multiple responses were possible per title.

Level

Designated Textbook Levels

Out of the 281 titles that were textbook-related material, 261 (93 percent) were explicitly labeled for a particular grade level (**Figure K-2**). Out of the 16 titles (six percent) in the "Other" category, 14 (five percent) were from a literacy series published in 2004 that used a color system to identify the textbooks' relative levels. The highest number of books was found for Primary Grade 1. Although the survey targeted kindergarten through Primary Grade 3 materials, the data collectors included materials that were designated for higher primary grades if they judged them to be potentially useful in lower grades. In this case, the data collectors included 45 titles (16

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[1] A "phonics approach" focuses on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises involving sound recognition and manipulation, blending sounds into syllables or words, and segmenting syllables and words into individual sounds.

perent of the textbook-related materials) labeled for Primary Grade 4. However, the data collectors did not find any preschool or kindergarten books, even though they were targeted by the study.

Figure K-2. Publisher-designated levels for textbook-related materials.
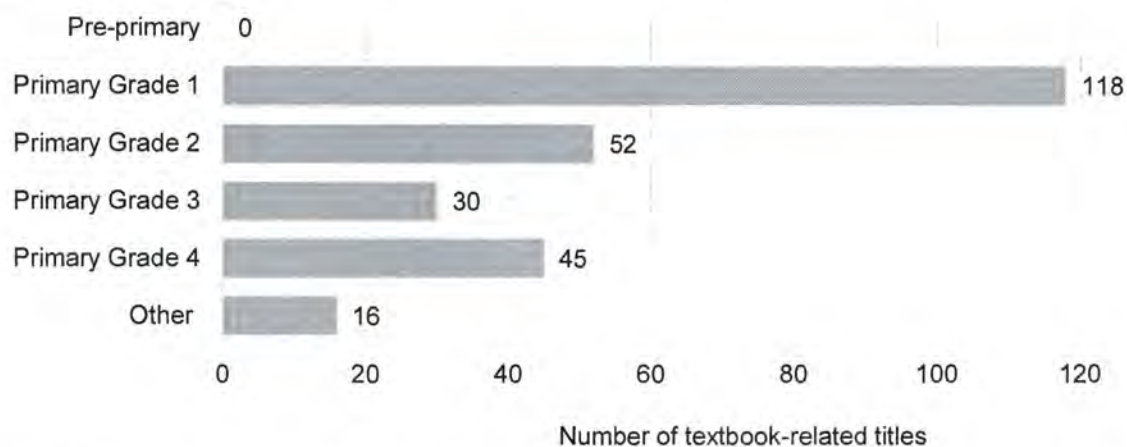
Note: Multiple responses per title were possible.

Non-textbook Levels

Because supplementary materials were not expected to be labeled for a particular grade level in most cases, the data collectors used a count of the maximum words per page (wpp) to serve as an approximate proxy for relative reading difficulty levels. The data collectors performed this count for narrative and informational texts.

As shown in **Figure K-3**, the materials were approximately evenly distributed between the various reading levels. The lowest number of titles was found in the intermediate range of 51–75 wpp, similar to the overall findings of the study. However, the Zambia inventory stands out from that of many other countries in the study with its relatively large number of supplementary titles appropriate for the lowest reading level (1–10 wpp).

Figure K-3. Number of narrative and informational non-textbook titles by maximum words per page

Words per page	Narrative	Informational
1-10 Words per page	101	5
11-25 Words per page	109	4
26-50 Words per page	125	19
51-75 Words per page	43	14
>75 Words per page	120	17

Number of non-textbook titles (0, 50, 100, 150)

● Narrative   Informational
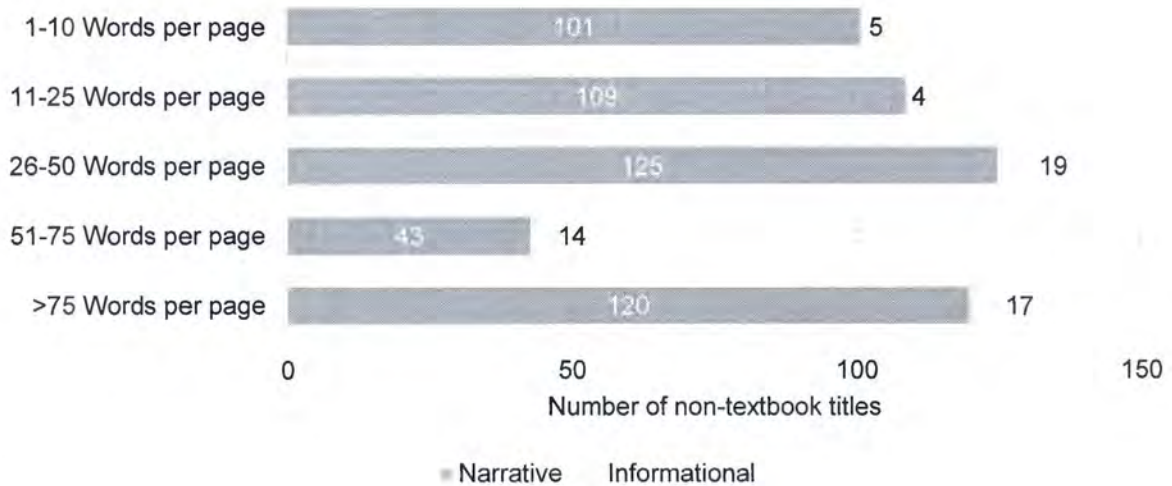
Illustrations

Of the 881 titles surveyed, most titles (746 [85 percent]) were illustrated, with the majority of them (523 [59 percent]) appearing in all color (see **Figure K-4**).

Figure K-4. Presence and type of illustrations

Is the book illustrated?

- No, 15%
- Yes, all B&W and/or grayscale, 24%
- Yes, some B&W and some color, 1%
- Yes, all color, 59%
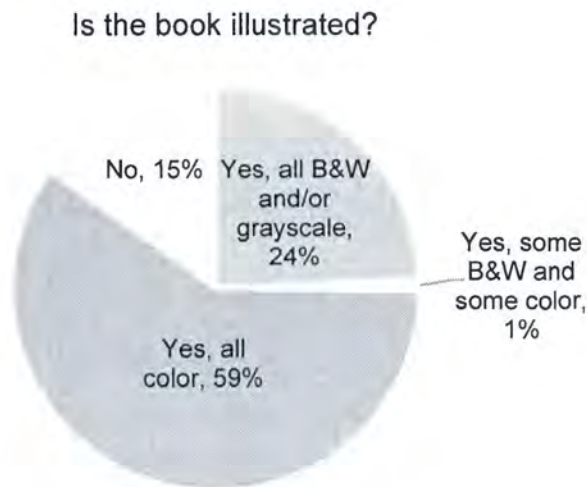
Note: Percentages may not sum to 100% due to rounding.

Content Themes

The data collectors examined 766 of the titles for content themes, excluding teacher's guides and reference materials. The data collectors skimmed the texts and/or illustrations and checked off the most prominent themes featured from a set list. The data collectors could select any number of themes because no limits were set for the minimum and maximum numbers. The number of titles tagged for each theme is presented in **Figure K-5**.

The most common theme was animals, appearing in 387 titles (51 percent), followed by morals/values (271 [35 percent]), community (229 [30 percent]) and home life (193 [25 percent]). The least number of topics found in the surveyed titles included biography and science (each with 1 title [less than one percent]) and energy and media (with zero titles).

Religious content appeared in only 28 titles (four percent) of the titles surveyed. Of those titles, 25 (three percent) contained references to Christianity and 10 (one percent) to Islam.

Figure K-5. Content themes

Theme	Number of titles
Adventure	158
Agriculture	91
Alphabet	90
Animals	387
Biography	1
Business	11
Careers/Professions/Jobs/Work	17
Colors or Shapes	46
Community	229
Culture	93
Education/School	147
Energy	0
Environment	94
Family	181
Food/Nutrition	74
Friendship	170
Health/Personal Hygiene	171
History	10
Holidays/Celebrations	5
Home Life	193
How to/Skill Development	47
Human Body	43
Humor	64
Media	0
Morals/Values	271
Numeracy/Counting/Math	45
Peace/Justice/Equality/Human...	20
Plants	23
Religion	28
Safety	119
Science	1
Social Studies/Civic Education	26
Technology	14
Travel/Transportation	65
Weather	20

Number of titles

Note: Multiple responses were possible per title.

Content Familiarity and Appropriateness

The data collectors analyzed 758 titles for the familiarity of the content for the target audience (i.e., a typical child who is a native speaker of the language of publication). Teacher's guides and reference materials were excluded from this item. The data collectors judged 746 titles (98 percent) as containing "very familiar" content and 12 titles (two percent) as containing

"semi-familiar" content. The data collectors did not judge any titles as containing "mostly unfamiliar" content for the target audience.

The data collectors reviewed the illustrations of 766 titles for any potentially sensitive content such as traumatic events, gore, smoking and/or illegal drug use, nudity, sexual content, and other known cultural taboos (**Figure K-6**). The data collectors did not find any potentially sensitive content for the majority of the titles (745 [97 percent]) evaluated for this item. As shown in Figure K-6, the most common type of content flagged for its potentially sensitive nature was traumatic event, which appeared in 10 titles (less than one percent). The data collectors were unable to determine if nine titles (one percent) contained any potentially sensitive content; all of the remaining categories each had five titles or fewer.

Figure K-6. Potentially sensitive content in the illustrations
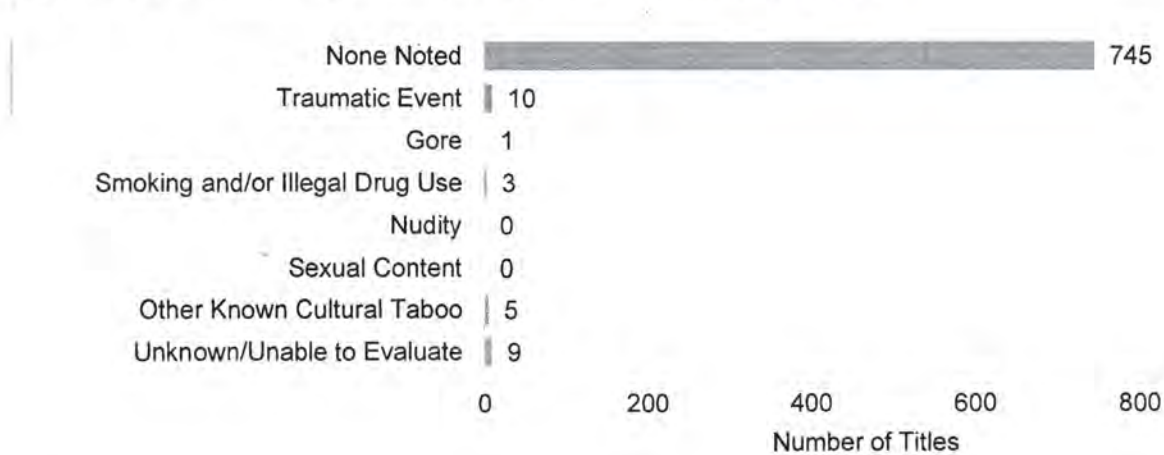
Frequency and Equality of Representation

The data collectors examined a subset of the materials for frequency and equality according to gender, ethnic or religious group identity, and disability of people represented in the illustrations. The analysis of elements related to equal frequency of representation is based only on illustrated materials in which illustrations depicted humans or anthropomorphized animals or objects. In the case of Zambia, this subset of material contained 695 titles.

Gender

Of the 695 titles, the data collectors determined that gender was not apparent in the illustrations in 116 (17 percent) of the titles, thus furthering limiting the subset of titles used to evaluate gender balance and roles. Of the remaining 579 titles, the data collectors judged 475 titles (82 percent) to portray an overall balance of both genders (**Figure K-7**). However, when a title primarily featured one gender, then male characters were slightly more likely to be featured (60 titles [10 percent]) than female characters (44 titles [eight percent]).

Figure K-7. Frequency of gender representation in the illustrations.
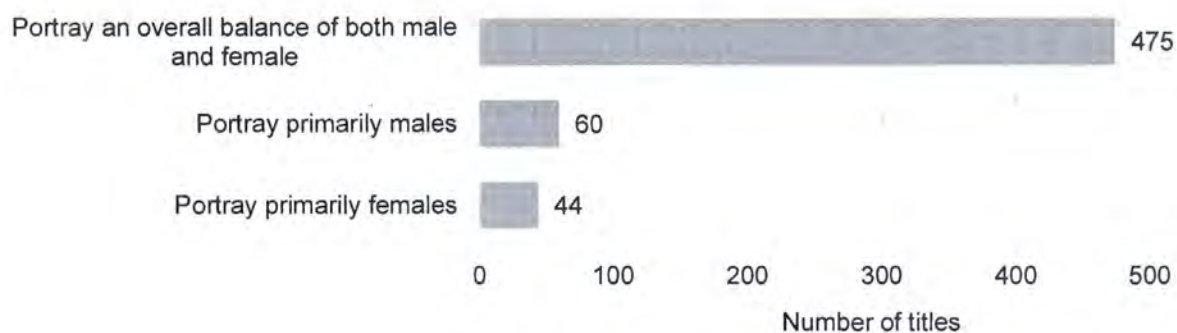
For 543 titles in which gender was apparent, the data collectors judged whether male and female characters were portrayed "with equal skills, knowledge, accomplishments, or roles" and found that in most cases (i.e., 409 [75 percent]) they were. However, in 52 titles (10 percent), the data collectors judged that male and female characters were portrayed unequally. For the remaining 82 titles (15 percent), the data collectors judged that there was an insufficient basis for comparison.

Ethnic and Religious Group Identity

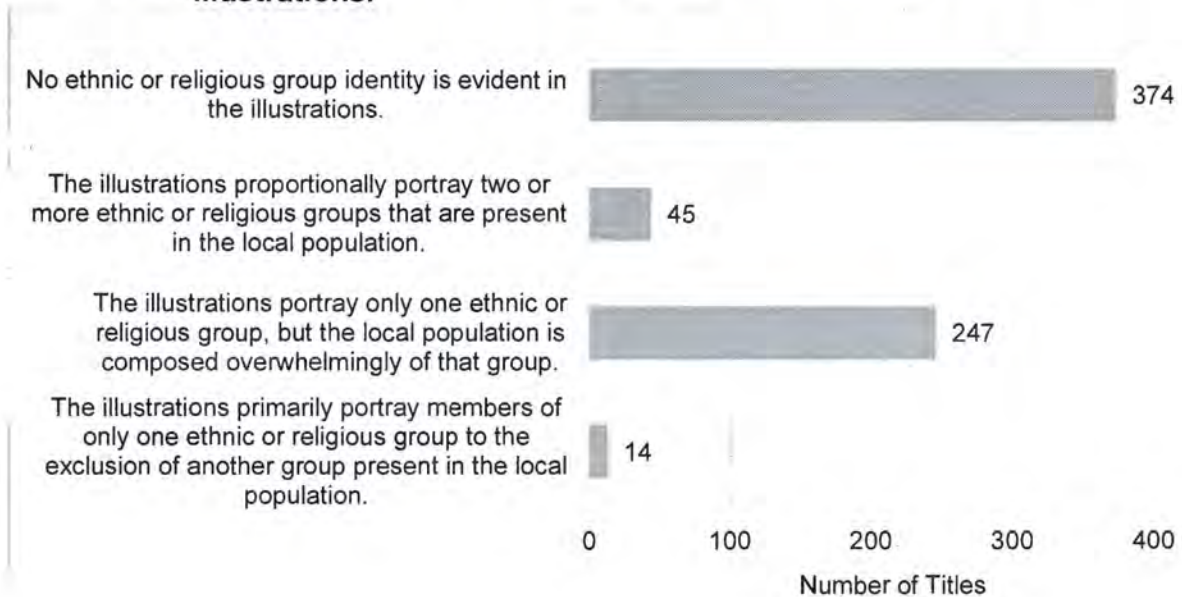Similarly to gender, the data collectors examined the illustrations of 680 titles for the frequency of representation of different ethnic and/or religious group members, when apparent. Out of those titles, 374 (55 percent) were deemed as not portraying characters with obvious ethnic or religious group identity markers (**Figure K-8**). Of the 306 titles that did, the most common scenario, with 247 titles (81 percent), was when the illustrations were judged to portray exclusively one ethnic or religious group in cases where the target population was composed overwhelmingly of that group. A much smaller number (i.e., 45 [15 percent]) of titles was deemed to portray different groups proportionally to their presence in the population, and only 14 titles (five percent) were judged to portray one group to the exclusion of another group present in the target population.

For the overwhelming majority of titles, the data collectors judged that there was an insufficient basis for comparison of the nature of the portrayal, if any, of ethnic or religious groups in the illustrations. The data collectors were able to evaluate only 51 titles for the question of whether different ethnic or religious groups were depicted "with equal skills, knowledge, accomplishments, or roles." Of those titles, the data collectors judged that 42 titles (82 percent) portrayed the different groups comparably, versus nine (18 percent) that portrayed them unequally.

Figure K-8. Frequency of ethnic/religious group representation in the illustrations.

No ethnic or religious group identity is evident in the illustrations. — 374

The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population. — 45

The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group. — 247

The illustrations primarily portray members of only one ethnic or religious group to the exclusion of another group present in the local population. — 14

Number of Titles
(0, 100, 200, 300, 400)

Disability

The data collectors also examined the illustrations of 695 titles for the frequency of representation of people with disabilities. Overwhelmingly, the surveyed materials lacked any illustrations of people with any type of disability; they appeared in only 16 titles (two percent; **Figure K-9**). Of those 16, the data collectors judged five (31 percent) as portraying people with disabilities "with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities."

Figure K-9. Frequency of the representation of people with disabilities in the illustrations
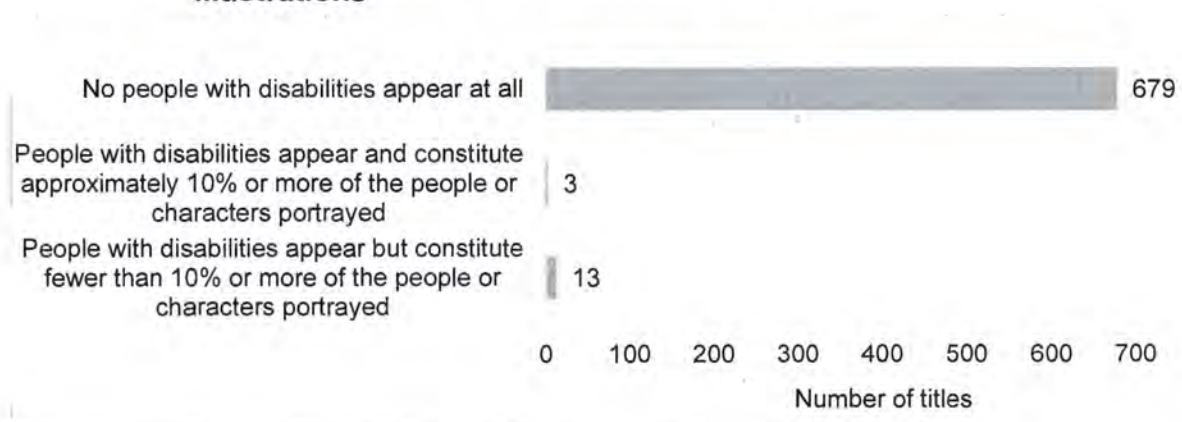
No people with disabilities appear at all — 679

People with disabilities appear and constitute approximately 10% or more of the people or characters portrayed — 3

People with disabilities appear but constitute fewer than 10% or more of the people or characters portrayed — 13

Number of titles
(0, 100, 200, 300, 400, 500, 600, 700)

C. Feasibility of Reusing, Adapting, and Reproducing Available Titles

Copyright, Restrictions, and Permissions

The vast majority of titles (i.e., 762 [86 percent]) contained a copyright symbol. Regarding explicit statements about restrictions or permissions for reuse, 376 titles (43 percent) contained an explicit statement along the lines of "All Rights Reserved." None of the titles contained a statement granting permissions for reuse or were licensed under Creative Commons. The remaining 498 titles (57 percent) did not contain any explicit statements indicating either restrictions or permissions.

Medium

The data collectors surveyed only one soft-copy title (an audio file of songs); they encountered all the other titles in hard copy.

D. Landscape of the Production of Children's Reading Materials in Zambian Languages

Publisher Types

In Zambia, the private sector constitutes the most productive publisher type in Zambian language materials for early grade reading. That sector is responsible for 459 (52 percent) of the titles surveyed (**Figure K-9**). However, the CDC, nongovernmental organizations (NGOs), and some local cultural associations are also major contributors to materials production. The introduction of Zambian languages as the medium of instruction in the lower primary grades has led to an increase in the number of publishers involved in materials production in these languages.

Figure K-10. Number of titles by publisher type
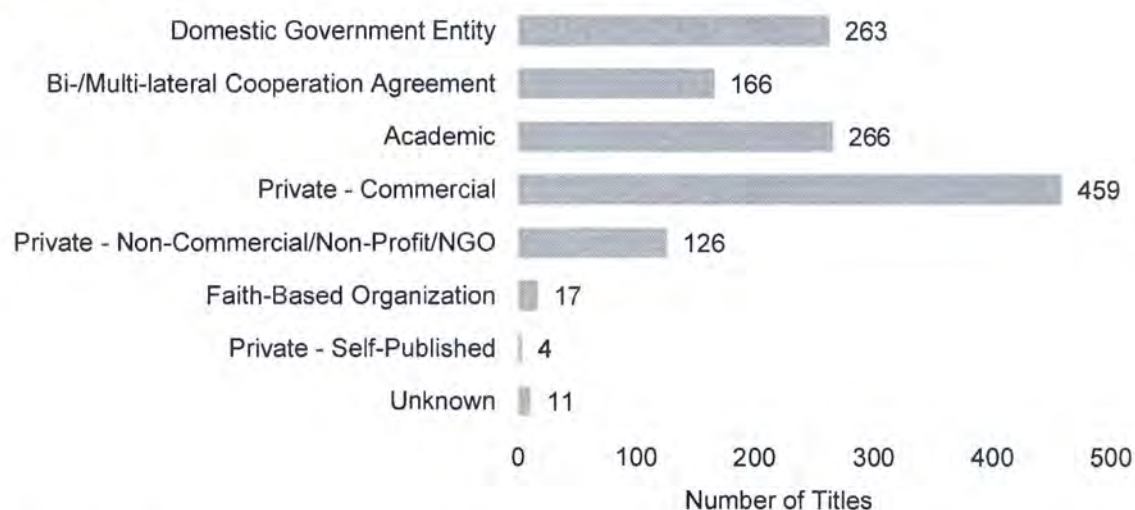
Note: Many titles were produced jointly by two or more organizations; therefore, the number of organizations presented here exceeds the number of titles surveyed. Publishers can also be included under multiple categories.

Year of Publication

Most of the surveyed materials (613 titles [70 percent]) were published during the past 15 years (**Figure K-11**). The production of materials in the current decade is more or less on pace with that of the previous (196 titles [22 percent] in five years, compared to 417 [47 percent] in 10 years), but unlike in many other countries in the survey, the rate of publication does not appear to be accelerating. The data collectors also inventoried a significant number of titles with publication dates dating back decades to even before national independence. This finding may be the result of the large number of titles found in libraries, where older material is more likely to be retained. In 51 titles (six percent), publishers either did not label their work with publication dates or the books were missing the cover page or front matter.

Figure K-11. Year of publication.
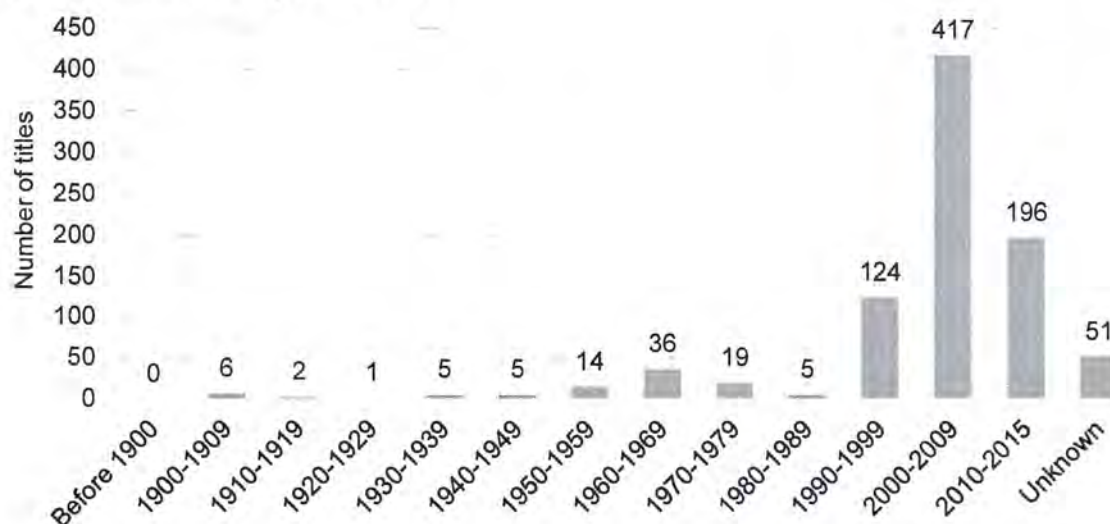
International Standard Book Number

A large majority of the titles (i.e., 723 [82 percent]) contained an International Standard Book Number (ISBN). The presence of an ISBN was not related to the publisher type, but rather to the year of publication, with the older material less likely to have an ISBN and newer material more likely to have an ISBN.

Price

The data collectors marked the price as being known for only 23 titles (three percent). Most of the books that the data collectors inventoried were from publishers and libraries. The data collectors reported that the publishers were reluctant to divulge price information for fear of competition. In a few situations, the books with marked prices were outdated. Therefore, due to the scarcity of price data, no reliable generalizations can be drawn regarding the price of books.

4. Remarks

For the lower primary grades being studied, the data collectors noticed that although there are Zambian language materials available starting for Primary Grade 1, in general, no materials have been developed in the local languages for teaching preschool or kindergarten children. In the past, this level of education has always been in the hands of the private education sector, which has been championing the use of English in preschool. Only recently have efforts been made to bring this sector into government programs, but not much has been done to date, and local language materials for this sector have yet to be developed.

As expected by the Ministry of Education regarding materials used in schools, books were of very good quality in terms of content and adherence to orthographic and dialectal conventions. The CDC provides quality control, inspection, and approval of all materials before they are used in schools. In fact, it is required that all books used in schools bear the inscription that the CDC has approved them for use in schools.

Although materials generally adhered to standardized orthographies, some orthographic variations do exist. The data collectors even found variations in the spelling of language names, such as Citonga, Chitonga, and Tonga. However, these variations come primarily from material produced before Zambia adopted standardized orthographies for its languages in 1977.

Publishing in Zambia is based on creating material for schools. Thus, the tendency is only to publish material in languages that are used as mediums of instruction, and most inventoried material was, in fact, written in one of the seven regional languages of wider communication. However, among these seven languages, there were some discrepancies in the number of publishers publishing in each language. All publishers that were inventoried publish in Bemba, Nyanja, Lozi, and Tonga, but only a few publishers also publish in Kaonde, Lunda, and Luvale. This disparity in publishing is based on the profitability of publishing in a specific language. Because Kaonde, Lunda, and Luvale speakers compose a much smaller portion of the Zambian population, publishers' profits from publishing in these languages are smaller than in publishing material for the more commonly used languages. Although translations are generally available in all languages, in some cases, the CDC has had to publish books in languages for which limited material was available.

Nevertheless, the data collectors did find some books in lesser known languages, , produced by local cultural associations. Although the data collectors surveyed materials in the Lamba and Namwanga languages, they were informed that materials were also being developed for the Lenje and Tumbuka languages. The data collectors also found narratives, dictionaries, and grammar books in old missionary materials that were written in languages with smaller speaker populations, such as Chokwe, Bisa, Mambwe, Tumbuka, Lenje, and Ila.

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Annex L. Number of Titles Found in Each Country, by Language

No.	Language Name[a]	Language ISO Code[b]	DRC	Ethiopia	Kenya	Malawi	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda	Zambia
1	Acholi	ach										25	
2	Adhola	adh										2	
3	Afan Oromo (West Central)	gaz		52									
4	Afar	aar		5									
5	Alur	alz	1									3	
6	Amharic	amh		366									
7	Anuak	anu		3									
8	Aringa	luc										23	
	Ateso—see Teso [teo]												
9	Bali	bcp	2										
	Bamanankan—see Bambara [bam]												
10	Bambara	bam					155						
11	Bandial	bqj								32			
12	Bangala	bxg	12										
13	Bemba	bem				4							159
14	Bench	bcq		36									
15	Berta	wti		10									
16	Bomu	bmq					3						
17	Borna	bwo		3									
18	Bozo (Tieyaxo)	boz					1						
19	Budu	buu	2										
20	Bushoong	buf	2										
21	Chichewa/Nyanja	nya			13	309		41					146
22	Chiga	cgg										21	
	Chinyungwe—see Nyungwe [nyu]												
	Chinyanja—see Chichewa/Nyanja [nya]												
23	Chopi	cce						7					
24	Chuwabu	chw						8					
25	Cokwe	cjk											1
26	Dawro	dwr		5									
27	Dholuo	luo			31							10	
28	Digo	dig			1								

No.	Language Name[a]	Language ISO Code[b]	DRC	Ethiopia	Kenya	Malawi	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda	Zambia
29	Dizin	mdx		24									
30	Dogon (Tene Kan)	dtk					4						
31	Dogon (Tomo Kan)	dtm					3						
32	Dogon (Toro So)	dts					4						
33	Duruma	dug			2								
34	Ekegusii	guz			14								
35	English	eng	5	29	35	8	1	3	45	5		47	44
36	French	fra	64				32	1	6	101			
37	Fulfulde (Adamawa)	fub							11				
38	Fulfulde (Central)	fuv							5				
39	Fulfulde (Maasina)	ffm					46						
40	Fuliiru	flr	10										
	Fumbira—see Kinyarwanda [kin]												
41	Gamo	gmv		1									
42	Ganda	lug										182	
43	Gedeo	drs		2									
44	Gikuyu	kik			36								
45	Gofa	gof		1									
46	Gumuz	guk		1									
47	Gungu	rub										15	
48	Gusilay	gsl								4			
49	Gwere	gwr			1							23	
50	Hadiyya	hdy		15									
51	Hausa	hau			8				91				
52	Igbo	ibo							126				
53	Igikuria	kuj			1								
54	Ijaw	ijc							9				
55	Ik	ikx										1	
56	Jola-Fonyi	dyo								31			
57	Jola-Kasa	csk								7			
58	Kafa	kbr		1									
59	Kakwa	keo			1								
60	Kalenjin	kln			2								
61	Kamba	kam			70								
62	Kambaata	ktb		6									
63	Kaonde	kqn			3								96

No.	Language Name[a]	Language ISO Code[b]	DRC	Ethiopia	Kenya	Malawi	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda	Zambia
64	Karon	krx								21			
65	Kiembu	ebu			7								
66	Kigiryama	nyf			15								
67	Kikongo	kng	88										
68	Kimiiru	mer			10								
69	Kinyarwanda	kin			47							1	
70	Kipfokomo	pkb			9								
71	Kiswahili	swh	1		424						382	1	
72	Kitharaka	thk			27								
73	Kituba	ktu	42										
74	Kiwiilwana	mlk			7								
75	Kokola	kzn				1							
76	Komo (DRC)	kmw	1										
77	Komo (Ethiopia)	xom		1									
	Kongo—see Kikongo [kng]												
78	Konso	kxc		3									
79	Konzo	koo			10							36	
80	Koorete	kqy		1									
81	Kuku											1	
82	Kumam	kdi										12	
83	Kupsapiiny	kpz										2	
84	Kuwaataay	cwt								37			
85	Lala-Bisa	leb											3
86	Lamba	lam											18
87	Lango	laj			2							72	
88	Latin	lat	1										
89	Leb Thur											2	
90	Lendu	led	3										
91	Lenje	leh											4
92	Lika	lik	4										
93	Lingala	lin	105										
94	Logo	log	4										
95	Lomwe (Malawi)	lon			9	10							
96	Lomwe (Mozambique)	ngl						9					
97	Lozi	loz			5								119
	Luba-Kasai—see Tshiluba [lua]												

No.	Language Name[a]	Language ISO Code[b]	DRC	Ethiopia	Kenya	Malawi	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda	Zambia
98	Lubukusu	bxk			17							1	
	Luganda—see Ganda [lug]												
99	Lugbara	lgg			3							82	
	Lugwere—see Gwere [gwr]												
	Luhya—see Oluluyia [luy]												
100	Lulogooli	rag			11								
101	Lunda	lun			5								72
	Lunyole—see Nyole [nuj]												
	Lusoga—see Soga [xog]												
102	Luvale	lue			3								76
103	Luyana	lyn											1
104	Ma'di	mhi										4	
105	Maasai	mas			54								
106	Majang	mpe		3									
107	Makhuwa	vmw						56					
108	Makonde	kde						41					
109	Mambwe-Lungu	mgr											1
110	Mandinka	mnk								10			
111	Mandjak	mfv								20			
112	Mangbetu	mdj	3										
113	Maninkakan (Eastern)	emk					1						
114	Mankanya	knf								12			
115	Manyika	mxc						4					
116	Marakwet	enb			8								
117	Masaaba	myx			1							45	
118	Mayogo	mdm	1										
119	Mbandja	zmz	5										
120	Me'en	mym		29									
121	Mono	mnh	7										
122	Mundu	muh	3										
123	Mwani	wmw						36					
124	Nandi	niq			1								
125	Ndau	ndc						14					
126	Ndut	ndv								12			
127	Ng'akarimojong	kdj										12	
128	Ngbaka	nga	70										

No.	Language Name[a]	Language ISO Code[b]	DRC	Ethiopia	Kenya	Malawi	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda	Zambia
129	Ngbandi (Northern)	ngb	7										
130	Ngbandi (Southern)	nbw	1										
131	Ngiti	niy	2										
132	Ngombe	ngc	1										
133	Nkoya	nka											3
134	Noon	snf								10			
135	Nuer	nus			1								
136	Nyamwanga	mwn											1
137	Nyamwezi	nym									1		
	Nyanja—see Chichewa/Nyanja [nya]												
138	Nyankore	nyn										30	
139	Nyole	nuj			1							67	
140	Nyoro	nyo										32	
141	Nyungwe	nyu			4			14					
142	Oluluyia	luy			6							1	
143	Olusamia	lsm			1								
144	Oluwanga	lwg			15								
145	Omi	omi	12										
146	Oniyan	bsc								8			
147	Orma	orc			4								
	Oromo—see Afan Oromo (West Central) [gaz] or Oromo (Borana–Arsi–Guji/Southern) [gax]												
148	Oromo (Borana–Arsi–Guji/Southern)	gax			1								
	Otetela—see Tetela [tll]												
149	Pagibete	pae	4										
150	Pokoot	pko			1								
151	Portuguese	por	1					43					1
152	Pulaar	fuc					1			35			
153	Rendille	rel			10								
154	Ronga	rng						7					
155	Runyakitara											1	
	Rwanda—see Kinyarwanda [kin]												
156	Saafi-Saafi	sav								34			
157	Sabawoot	spy			5								
158	Sagalla	tga			1								
159	Samburu	saq			5								
160	Sena (Malawi)	swk				2							

No.	Language Name[a]	Language ISO Code[b]	DRC	Ethiopia	Kenya	Malawi	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda	Zambia
161	Sena (Mozambique)	seh						7					
162	Sénoufo (Mamara)	myk					27						
163	Sénoufo (Supyire)	spp					7						
164	Sénoufo (Syenara)	shz					11						
165	Sepedi	nso			1								
166	Serer-Sine	srr								122			
167	Sheko	she		31									
168	Shi	shr	1										
169	Sidamo	sid		15									
170	Silt'e	stv		10									
171	Soga	xog			38							27	
172	Soli	sby											1
173	Somali	som		20	4								
174	Songhay (Koyra Chiini)	khq					3						
175	Songhay (Koyraboro Senni)	ses					14						
176	Soninke	snk					14			3			
177	Suba	sxb			1								
178	Suri	suq		36									
	Swahili—see Kiswahili [swh] or Swahili (Congo) [swc]												
179	Swahili (Congo)	swc	30										
180	Talinga-Bwisi	tlj										10	
181	Tamasheq	taq					5						
182	Taveta	tvs			1								
183	Tembo	tbt	10										
184	Teso	teo			24							46	
185	Tetela	tll	25										
186	Tewe	twx						6					
187	Tigrigna	tir		18									
188	Tonga (Mozambique)	toh						11					
189	Tonga (Zambia)	toi			5								168
190	Tooro	ttj			1							1	
191	Tshiluba	lua	11										1
192	Tsonga	tso			1			24					
193	Tswa	tsc						9					
194	Tugen	tuy			1								
195	Tumbuka	tum				18							2

No.	Language Name[a]	Language ISO Code[b]	DRC	Ethiopia	Kenya	Malawi	Mali	Mozambique	Nigeria	Senegal	Tanzania	Uganda	Zambia
196	Turkana	tuv			12								
197	Waata	ssn			1								
198	Wamey	cou								6			
199	Wolaytta	wal		11									
200	Wolof	wol								57			
201	Xaasongaxango	kao					1						
	Xichangana—see Tsonga [tso]												
202	Yao	yao				14		32					
203	Yoruba	yor							107				
204	Zambian Sign Language	zsl											1
	Unknown			1						3	4		

Note: DRC = Democratic Republic of the Congo; ISO = International Organization for Standardization.

a   Most languages go by several different names; several languages have the same name. If there is confusion, refer to the *Ethnologue* at www.ethnologue.com (Lewis et al., 2015). Language/dialect distinctions that have been assigned separate ISO 639-3 codes are given in parentheses.

b   ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages (SIL International, 2015).

References

Lewis, M. P., Simons, G. F., & Fennig, C. D. (Eds.). (2015). *Ethnologue: Languages of the world.* (18th edition). Dallas, TX: SIL International. Retrieved from http://www.ethnologue.com/

SIL International. (2015). *ISO 639-3*. Retrieved from http://www-01.sil.org/iso639-3/

Annex M. Data for Education Research and Programming (DERP) in Africa Reading Materials Survey Instrument

How to use or adapt this survey instrument
This instrument was originally developed for the *Survey of Children's Reading Materials in African Languages in 11 Countries* (henceforth referred to as the Reading Materials Survey) under Data for Education Research and Programming (DERP) in Africa, Task Order 19 of the Education Data for Decision Making (EdData II). The DERP Reading Materials Survey collected and analyzed information about multiple aspects of the existing supply of early grade reading materials in African languages in 11 countries in sub-Saharan Africa. The instrument was used to collect information about each individual title in the sample. The instrument is available in English and French. A digital version of the instrument was built in Tangerine®,[1] a software application for collecting survey data that has an open-source code. Data collection was conducted on tablets.

Organizations and individuals who are interested in studying the availability of early reading materials in a particular market, country, or region are free to use, translate, abbreviate, or otherwise modify this instrument for data collection. The organizations and individuals may decide how to store and analyze data, but they have the option of collecting data digitally by using Tangerine or another software package of their choice.

To have access to the instrument on Tangerine, interested parties should fill out the contact form.[2] Users who would like to host Tangerine on their own server will be provided the instrument file for integration. Tangerine is free of charge for a low level of usage (2,000 results per year.) Beyond that level, users will be charged a subscription fee to cover the costs of Web hosting and maintenance.

Interested parties may also use the Tangerine code for this survey instrument at no cost, host it on their own Web server, and pay for their own Web host directly.

Finally, interested parties may use this Word document to build a version on another data collection software package. |

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[1] More information about Tangerine is available at http://www.rti.org/page.cfm?obj=4AC4ED57-5056-B100-31BB4AE8FC3AAD07

[2] The contact form is available at http://www.tangerinecentral.org/contact

DERP Reading Materials Survey with Guidelines for Data Collectors
(English Version)

For all data entries, Tangerine will automatically record your user name when you log in. It is important to use your own user name each time you log in.

Note: Tangerine cannot combine fill-in-the-blank answer options with check-the-box answer options in the same question item. In these cases, instructions will be given to enter "888" (numbers only, no quotation marks) for "Unknown" as a shortcut to writing out the word.

<u>Preliminary Information</u>
1. Unique Book Identification
Tangerine will automatically generate a unique six-letter identification (ID) code for each book title. You do not have to do anything except tap "Generate," make note of the code generated, and then tap "Next."

Copy the code generated to a small piece of paper. When you finish the survey, you will take photographs of the books with the Unique Book ID code visible next to it. Currently, it is not possible to attach the photo file directly to the entry in Tangerine, so the photo files must be submitted separately. All of the photo files will eventually need to be renamed and saved with the Unique Book ID code. (Note: If the photographs are taken with the tablet camera, then this may not be possible until the photo files are transferred to a computer, but the code in the photo will help you match the file to the correct book entry.) For soft copies, you will submit the entire file (with permission) or will take screen shots of the relevant pages (see the end of the survey), renaming them with the corresponding Unique Book ID code.

2. Country
Choose your country location from the list. This is the country that you have been assigned to inventory, regardless of the origin of the book itself.

□ **Democratic Republic of the Congo (DRC),** □ **Ethiopia,** □ **Kenya,** □ **Malawi,**
□ **Mali,** □ **Mozambique,** □ **Nigeria,** □ **Senegal,** □ **Tanzania,** □ **Uganda,** □ **Zambia,**
□ **Other (Please specify:** _____)

3. Book Location: Where did you find this book? *(Choose all that apply.)*
For the book "was provided to me by..." options, you should include digital and hard-copy transmissions, regardless of the physical location of either the provider or the recipient.

□ **The book was provided to me by the publisher (or funder or sponsoring organization).**
□ **The book was provided to me by a government official or public school personnel.**
□ **The book was provided to me by private school personnel.**
□ **The book was found in the market (i.e., at a bookstore, shop, open air stand, or other distributor not directly affiliated with the publisher or government).**

☐ The book was provided to me by a secular non-governmental organization (NGO) or community organization not directly affiliated with the publisher or government.

☐ The book was provided to me by a faith-based NGO or religious organization (e.g., church) not directly affiliated with the publisher or government.

☐ The book was found in a library.

☐ The book was found in an individual's private collection.

☐ The book was found on a Web site.

☐ Other (Please specify: _____)

General Information

4. Book Title: [title] or ☐ Unknown ("888")

You should record the title as it appears on the outside cover of the book.

If the title is in Latin script (also called Roman script), but uses special characters or diacritics that are not available in the tablet keyboard, then you should enter the closest Latin-character equivalent, or the character without diacritics. It is important to note that the tablet keyboards are equipped with the most common diacritics; you should tap and hold the character button to view the options.

For non-Latin-based scripts, the title is sometimes written in Latin script on the inside cover or in the front matter of the book (e.g., the inside cover, title page, copyright page, acknowledgements, dedication, and preface, if any). Alternatively, if you know how the title is pronounced, then you can transliterate it (approximately) from its native script into Latin-based script. If neither is possible, then you should enter "888" (numbers only, no quotation marks) for "Unknown," but you should make note of the Unique Book ID code that you generated on the previous screen (use the "Back" button if necessary) so that you can easily match it to the photographs of the book that you will take at the end of the survey.

Note: You should employ these same strategies for all other fields (e.g., author's name, publisher's name, illustrator's name) when the same issues apply.

5. Author(s): [name] or ☐ Unknown ("888")

You should record up to three names who are listed as author(s) or writer(s) on the cover or inside cover. You should record the names as they appear, in the order in which they appear, separated by commas. If more than three names are listed as author on the cover, you should record the first three, and then add "and Others" at the end. If a particular person is not named, then you should record the responsible and/or sponsoring organization, if known. For anthologies (collections of pieces written by many different authors), if the names of editors are listed on the cover, then you should record those names; otherwise, you should record the authors listed on the first three pieces in the anthology and add "and Others." If the author is listed as "Anonymous," then you should record "Anonymous." If the book does not list the names of an author or writer, the responsible and/or sponsoring organization, or an editor, then you should enter "888" for "Unknown."

6a. Year of Publication: [four-digit number] or ☐ Unknown ("888")
You should record the four-digit year of publication (e.g., 1997). If there have been multiple editions of the book, then you should only record the most recent date. If a publication date is not noted, then you should enter "888" for "Unknown."

> **6b. For Ethiopia Only: This year of publication is according to the**
> ☐ Ethiopian calendar
> ☐ Gregorian calendar
> ☐ Unknown

Publisher

7. Publisher/Sponsoring Organization(s): [name] or ☐ Unknown ("888") *(If "Unknown," skip Question 8.)*
You should record the name of the publisher as listed on the cover or in the front matter of the book. If a publisher's name is not listed, but a responsible and/or sponsoring organization is identified (either by name or by logo), then you should record the organization's name, up to three, in the order in which they appear, following the similar instructions for multiple authors. If a publisher's name is not listed, but more than three responsible and/or sponsoring organizations are identified, then you should list the first three names in the order in which they appear and add "and Others," following the similar instructions for multiple authors. (It is important to note that the publisher and the responsible and/or sponsoring organization may be one and the same.) If the name of a publisher or responsible or sponsoring organization is not identified, then you should enter "888" for "Unknown."

8a. Publisher/Sponsoring Organization Category: *(Choose all that apply.)*
You may select more than one option for the publisher/sponsoring organization category, if this information is known. For example, for a joint initiative of the Ministry of Education and the U.S. Agency for International Development (USAID), you would check the first two options. For SIL International, you would check both "Private—Not for Profit/NGO" and "Faith-Based Organization." A private university may also be both "Academic" and "Private—Not for Profit/NGO." When in doubt, you should not guess; instead, you should attempt to find out this information for sure (e.g., ask the publisher, research the information online).

> ☐ **Domestic Government Entity**
> (Examples of this type of entity include the local federal government, the Ministry of Education, the Basic Education Board or equivalent, or any other recognized branch of the country's government at any level [e.g., federal, state, local]).

> ☐ **Bi- or Multi-lateral Cooperation Agreement**
> (These types of agreements are joint initiatives between government-sponsored organizations of two or more nations. If the book was published under one of these agreements, then there will probably be a logo or acknowledgement of such.)

> > **8b. If "Bi- or Multi-lateral Cooperation Agreement," please specify with whom.** *(Choose all that apply.)*
> > ☐ Agence Francaise de Développement (AFD)
> > ☐ Belgian Technical Cooperation (BTC)

☐ Canadian Department of Foreign Affairs, Trade, and Development (formerly known as the Canadian International Development Agency [CIDA])

☐ Department of Foreign Affairs and Trade (DFAT, formerly the Australian Agency for International Development [AusAID])

☐ Department of International Development (DFID, formerly UKaid)

☐ Japan International Cooperation Agency (JICA)

☐ Swiss Agency for Development and Cooperation (SDC)

☐ United Nations Educational, Scientific, and Cultural Organization (UNESCO)

☐ United Nations Children's Fund (UNICEF)

☐ USAID

☐ World Bank/Global Partnership for Education (GPE)

☐ World Health Organization (WHO)

☐ Other (Please specify: _____)

☐ **Academic**
(This category is usually a university or university-sponsored entity; possibly a secondary school.)

☐ **Private–Commercial**
(Examples of this category include any for-profit publishing house or organization [e.g., Pearson, Scholastic].)

☐ **Private–Non-Commercial/Not-for-Profit /NGO**
(Examples of this category include SIL International, Save the Children, Room to Read, and the African Storybook Project)].

☐ **Faith-Based Organization**
(Examples of this category include any religiously affiliated organization [e.g., SIL International, World Relief, Watch Tower Society].)

☐ **Private–Self-published**
(This category is used when a publisher or sponsoring organization was not involved [e.g., published by the author(s) with personal funds].)

☐ **Unknown**
(This category is used when a no information is known and no reasonable guess can be made about the publisher, even after conducting research.)

You will make a separate inventory of the contact information of the publishers encountered, including as much of the following information as is known about each publisher: address and contact information, contact person, and Web site. When you finish entering all of the data for this item, you should remember to enter any known contact information for this publisher in the

separate **"Publisher/Provider Contact Information"** survey, if you have not already done so. You will only need to enter contact information for each publisher once.

9. International Standard Book Number (ISBN): [10–13 digit number] or ☐ None noted/Unknown ("888")
You should record the ISBN if it is noted in the book. The ISBN can often be found on the back cover and/or on the copyright page (in the front matter). In addition, if a bar code was generated using the ISBN, then it will be found on the back cover of the book. The ISBN will be the number found above the bar code (see red arrow in the example below) and will clearly be labeled as such. The ISBN will not be the number underneath the bar code.

The ISBN will contain either 10 or 13 digits. If both the 10 and the 13 digit codes are listed, then you should record only the longer number (13 digits). You should only record the digits (no dashes). Not every book has an ISBN. If an ISBN is not noted in the book, then you should enter "888" for "Unknown."

Medium
10. In which medium is the book available? *(Choose all that apply.)*
 ☐ **Hard copy**
 ☐ **Soft copy (digital)**

You should record the medium of the copy that they are reviewing. In addition, to the best of your knowledge (e.g., based on information from the Internet or provided directly to you from the publisher), if the title is also available in the other medium, then you should check it as well.

If the book is not available in hard copy, then skip Questions 11 and 15.
If the book is not available in soft copy, then skip Questions 12, 13, and 16.

11. If the book is available in hard copy, what are the dimensions?
 ☐ **A5 (approximately 21 × 15 centimeters [cm])**
 ☐ **A4 (approximately 30 × 21 cm)**
 ☐ **A3 (approximately 42 × 30 cm)**
 ☐ **Other—Length in centimeters: [length]**
   Width in centimeters: [width]
 ☐ **Unknown**

With the book closed, you should measure the sides to the closest centimeter. The length is the longer side. You may choose one of the options listed if the both dimensions (i.e.,

length and width) are within a centimeter of the dimensions given. Otherwise, you should choose "Other" and enter the dimensions, in whole numbers, rounding up or down to the closest centimeter. You should choose "Unknown" if you do not have a hard copy available for measuring.

12. If the book is available in soft copy, in which format is it provided? *(Choose all that apply.)*
☐ **.pdf**
☐ **.pub**
☐ **.epub**
☐ **.ppt(x)**
☐ **.rtf/doc(x)**
☐ **.htm/.html**
☐ **.azw (Kindle)**
☐ **.mobi or .prc (Mobi)**
☐ **SIL Bloom**
☐ **Other (Please specify: _____)**
☐ **Unknown**

If the file is available in soft copy, the file extension reveals the type of format in which it is provided. (The previously mentioned options are all examples of file extension codes, except for "SIL Bloom."). The file extension is often included as part of the file name (i.e., the last three or four letters after a period or full stop), and/or may be deduced by the software program used to open it (see examples below). If the file is part of an online collection, the Web site will often explicitly state the type of format(s) in which the files are available. You should be familiar with the most common file formats.

Some of the software programs used to open each file type are presented as follows (Note: Other programs may also work, but these are the most common):
- .pdf: Adobe Reader/Acrobat
- .pub: Microsoft Publisher
- .epub: Most eBook readers/apps (except Kindle)
- .ppt(x): Microsoft PowerPoint
- .rtf/.doc(x): Microsoft Word
- .htm/html: Web browsers (e.g., Internet Explorer, Firefox, Google Chrome, Safari)
- .azw: Kindle eBook reader/app
- .mobi or .prc: Mobipocket, Kindle, or many mobile phone ebook reader/apps

13a. If the book is available in soft copy, is a copy publically available for free online?
☐ **Yes**
☐ **No**
☐ **Unknown**

13b. If yes, where?
☐ **Publisher's or Funder's Web site**
☐ **EdData II Web site**
☐ **USAID's Development Experience Clearinghouse**
☐ **Other (Please specify: _____)**
If it is available on the Publisher's Web site, be sure to include the Web site address in the Publisher Contact Details.

14. Draft vs. Final: Some materials may come to you in "draft" (non-finalized) form. To your knowledge, is this book in draft form?
☐ **Yes, it is still a draft.**
☐ **No, it is finalized.**

The copy may have the words "Draft" marked on it, or the publisher or person providing the copy to you may indicate that it is still in draft form. Some drafts may be very close to finalized, but they are just awaiting approval. If there is no indication either on the book itself or from the provider that it is a non-final draft version, then you may assume that it is a final version.

<u>Price</u>
Prices may vary according to location, quantity purchased, and the status of the buyer (e.g., discounts applied to specific groups), among others. You should enter the best estimation of the price of the copy you are reviewing if you were to purchase it new as a private individual.

The currency codes for Questions 15b and 16b are presented as follows:
    CDF: Congolese Franc
    CFA: West African CFA (for Mali and Senegal)
    ETB: Ethiopian Birr
    EUR: Euro
    KES: Kenyan Shilling
    MWK: Malawian Kwacha
    MZN: Mozambican Metical
    NGN: Nigerian Naira
    TZS: Tanzanian Shilling
    UGX: Ugandan Shilling
    USD: United States Dollar
    ZMK: Zambian Kwacha

15a. If the book is available in hard copy, how much does the hard copy cost? [price] or ☐ Unknown ("888")
If the book is free to the public, you should enter zero; otherwise, you should enter the price to the closest whole number. If the price is not known, then you should enter "888" for "Unknown."

15b. If the book is not free or "Unknown," in which currency is the price quoted in 15a?

☐ CDF, ☐ CFA, ☐ ETB, ☐ EUR, ☐ KES, ☐ MWK, ☐ MZN, ☐ NGN, ☐ TZS, ☐ UGX, ☐ USD, ☐ ZMK

16a. If the book is available in soft copy, how much does the soft copy cost? [price] or ☐ Unknown ("888")
If the book is free to the public, you should enter zero; otherwise, you should enter the price to the closest whole number. If the price is not known, then you should enter "888" for "Unknown."

16b. If the book is not free or "Unknown," in which currency is the price quoted in 16a?
☐ CDF, ☐ CFA, ☐ ETB, ☐ EUR, ☐ KES, ☐ MWK, ☐ MZN, ☐ NGN, ☐ TZS, ☐ UGX, ☐ USD, ☐ ZMK

Pages and Illustrations
17. Number of Pages: [number]
You should record the page number from the last page. If the book is not numbered, then you should count the number of pages. Normally front matter (e.g., the inside cover, title page, copyright page, acknowledgements, dedication, and preface, if any) is excluded from the page count.

18. Illustrations: Is this book illustrated?
☐ Yes, all black and white or greyscale
☐ Yes, some black and white and some color
☐ Yes, all color
☐ No *(In this case, skip Questions 19 and 36 through 43.)*

For a book to be considered as illustrated, it must contain at least one illustration within the body of the book. If the only illustration is on the outside cover, inside cover, or front matter (e.g., title page), then you should check the box for "No." Illustrations may be in the form of drawings, clip art, and/or photographs—basically any non-text image. You should not consider decorative borders to be illustrations.

19. If the book is illustrated, what is the name of the illustrator(s)?: [name] or ☐ Unknown ("888")
You should follow the same guidelines for recording illustrators' names as for authors (i.e., record up to three names who are listed as illustrators). You should record the names as they appear, in the order in which they appear, separated by commas. If more than three names are listed as illustrator, then you should record the first three and add "and Others" at the end. If an illustrator is not noted in any identifiable way, then you should enter "888" for "Unknown."

Copyright
20. Is the book marked with a copyright symbol (©)? ☐ Yes or ☐ No/Not apparent
The copyright symbol, if any, is usually noted on the copyright page in the front matter of a book. *(If the copyright page is not marked with a copyright symbol, then skip Question 21.)*

21. If the book is marked with a copyright symbol, then who is the copyright owner (i.e., whose name is stated next to the symbol [©])? *(Choose all that apply.)*

    ☐ The publisher or sponsoring organization (i.e., at least one of the same organizations noted under Question 7)

    ☐ The author (i.e., at least one of the same names noted under Question 5)

    ☒ The illustrator (i.e., at least one of the same names noted under Question 19)

    ☐ Other (i.e., either the name next to the copyright symbol does not match the publisher, the author, or the illustrator, or there is another name in addition to any of the above)

22a. Is the book licensed under Creative Commons?

    ☐ Yes *(If yes, then skip Question 23.)*

    ☐ No Creative Commons license is apparent/Unknown

22b. If yes, which type?

        ☐ CC-BY

        ☐ CC-BY-NC

        ☐ CC-BY-SA

        ☐ CC-BY-NC-SA

        ☐ CC-BY-ND

        ☐ CC-BY-NC-ND

Creative Commons is a fairly recently developed license that gives copyright owners a structured way to retain copyright while still granting specific permissions for re-use of their work. If a book has been licensed under Creative Commons, it will be explicitly stated somewhere in the publication (usually on the copyright page and/or back cover), with or without the CC logo, such as shown in the following example, or simply with the letters: "CC-BY-NC-SA" (or any of the other options previously listed):
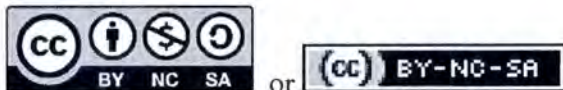
Examples of all six logos are presented on the Creative Commons Web page at https://creativecommons.org/licenses.

The statement and/or logo will contain one of the previously listed six options, sometimes followed by a number (e.g., 2.0, 3.0). If you see a Creative Commons logo or statement in a book, carefully match it to the correct option, ignoring any numbers at the end.

23. Other than Creative Commons, is there any explicit statement concerning permissions for re-use of this work?

    ☐ Yes, granting permission for non-commercial or non-profit purposes only

☐ Yes, granting permission for commercial purposes (as well as non-commercial/non-profit), including, but not limited to, anything that explicitly refers to the work being in the "public domain"

☐ Yes, granting other permission (Please specify: _____)

☐ There is a statement "All rights reserved" (or equivalent wording)

☐ No explicit statements concerning permissions are apparent

☐ Unknown/unable to evaluate

Sometimes copyright owners grant permission for others to use their books in various ways. In these cases, there should be an explicit statement such as "Permission is granted to use this work for non-commercial purposes" or something along those lines. (Any item that is permissible for commercial use will also be permissible for non-commercial use, but not vice versa.)

Some works are in the "public domain," meaning that the copyright has either expired or the copyright owner has relinquished all of his or her rights. The laws for what is and what is not in the public domain vary by country. Often, such works will not explicitly be marked as "public domain"; however, if there is an explicit statement referring to the work as being in the "public domain," then you should choose "Yes, for both commercial purposes (as well as non-commercial/non-profit)."

24. Optional comments on copyright issues, permissions, or restrictions: [comments]
This item is optional. You should use this space to note any relevant information or clarification about Questions 20 through 23; otherwise, you can leave it blank and tap "Next."

Book Type
25. Is this title part of a series or a set of related works?
    ☐ Yes
    ☐ No
    ☐ Unknown

Books with similar characteristics or subject matter may be formally identified as being part of a set or a series. A set or series can include a pupil textbook and workbook or teacher's guide that go together, a collection of textbooks by the same publisher for different grade levels (e.g., "Let's Learn! Grade 1," "Let's Learn! Grade 2), or a collection of decodable or leveled readers.

26. What type of book is this?
    ☐ **Primer or reading "textbook" or related material** *(If so, then skip Questions 28, 29, and 32.)*
    ☐ **Non-textbook/supplementary** *(If so, then skip Question 27.)*

If the book appears intended, at least in part, to support the teaching of reading skills (e.g., letters/phonics, decoding, fluency, vocabulary, comprehension), then you should choose the first option. You should include materials that have not necessarily been developed and/or sanctioned for a formal classroom setting, but that could potentially (or already do) serve as such. You should also include "language arts" textbooks that may have a slightly wider scope than just

reading, as long as reading-related activities are also a significant component. In addition, you should include related supporting materials such as workbooks and teacher's manuals.

27. If the book is a primer or reading "textbook" or related material, which type is it?
☐ Student textbook or primer
☐ Student workbook
☐ Teacher's manual or guide

28. If the book is non-textbook/supplementary, which type is it? *(If more than one type applies to the book, then choose the one that represents the majority of the content.)*
☐ Narrative (i.e., a story)
☐ Informational
☐ Reference (e.g., dictionary, reference grammar) *(If so, then skip Questions 29 through 43.)*
☐ Poetry, songs, riddles, proverbs, or similar
☐ Unknown/unable to evaluate

You should consider the following basic definitions:
- **Narrative** text is prose writing that tells a story. The story may be completely fiction (imagined) or based on fact. Elements that are basic to narrative text include the setting, characters, plot, conflict, and a resolution/ending. All narrative fiction (e.g., stories, folk tales, fairy tales, fables, myths, legends) will fit under this category. Texts that tell the story of someone's life (biography), or retell an event from history or the Bible by using storytelling devices (e.g., characters, plot) will also fit under this category.
- **Informational** text is prose writing that informs readers about a topic in the natural or social world that is based on facts, but without using storytelling devices. Examples of informational text are textbook chapters that describe real-world phenomena or brochures about a place or an organization. For example, texts that describe malaria transmission, or volcanoes, or dinosaurs (assuming the absence of a story structure) will fit under this category.
- **Reference** text can include a dictionary, glossary, or a reference grammar (i.e., a technical, linguistic analysis of a language).
- **Poetry and songs** are written in "verse" rather than in prose. Verses may be repeated, as a chorus, and they may rhyme with one other or at least have a meter and rhythm that is musical and that distinguishes it from the natural speech stream. Poetry and songs will be most evident from the arrangement of words on the page.
- **Riddles and proverbs** are short sayings (usually one or two sentences) that present either a puzzle to solve (riddles) or folk wisdom (proverbs).

29. In addition, if the book is non-textbook/supplementary materials, is it any of the following? *(Choose all that apply. If none applies, leave them all blank.)*
☐ "Big book"
☐ Decodable book
☐ Leveled reader

☐ Collection of texts by several authors (e.g., anthology)
☐ Magazine

You should consider the following basic definitions:

- A "**big book**" is an oversized children's book that is intended to be read aloud by a teacher to the whole class. (Note: Almost any size book can be read aloud to a class; big books are intentionally made extra large for this purpose (e.g., large enough that students can view the pages from their seats in the classroom). A "big book" may or may not be explicitly marked as such, so, in general, you should choose this option if the book seems to be oversized or exceptionally large in dimensions, font size, and illustrations.[3]

- **Decodable books** (sometimes called decodable stories, texts, or readers) are aligned to a particular early literacy curriculum and contain only or mostly words that learners should be able to sound out ("decode") at a particular point in that curriculum. Decodable books often focus on one or more particular letter sounds or patterns, either explicitly or implicitly, by including many words with those spellings. Often, decodable books will be explicitly labeled as such, but not always.

- **Leveled readers** are part of a larger collection of titles that are classified and labeled according to their level of difficulty as determined by the publisher. The levels may or may not correspond to grade levels; each publisher or series will have its own system of indicating the level. Leveled readers are distinguishable from textbooks, which are often labeled for a particular grade level, in that they are comprised only of texts (narrative or informational) intended for reading practice, but not lessons, exercises, or other elements often included in textbooks. You should only choose this option if the book is both explicitly labeled for a specific level and is not a textbook.

30a. Content Topic Tags *(Choose all that accurately describe the main subject[s] and intention of the book.)*

☐ Adventure	☐ Culture	☐ Home life
☐ Agriculture	☐ Education/school	☐ How-to/skill development
☐ Alphabet	☐ Energy	
☐ Animals	☐ Environment	☐ The human body
☐ Biography	☐ Family	☐ Humor
☐ Business	☐ Food/nutrition	☐ Media
☐ Careers/professions/ jobs/work	☐ Friendship	☐ Morals/values
☐ Colors or shapes	☐ Health/personal hygiene	☐ Numeracy/counting/ math
☐ Community	☐ History	
	☐ Holidays/celebrations	

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[3] Examples of "big books" in use are available at the following links:
- http://web.stanford.edu/~jbaugh/saw/studentphoto/Lizet/DSC00125.JPG
- http://www.kellydelaneydesign.com/images/1024/Ollie.jpg
- http://i.ytimg.com/vi/SSZ6OTtC2k0/0.jpg

☐ Peace/justice/equality/ human rights
☐ Plants
☐ Religion
☐ Safety

☐ Science
☐ Social studies/civic education
☐ Sports
☐ Technology

☐ Travel/transportation
☐ Weather
☐ Unknown/unable to evaluate

You should skim through the content and make note of any of the main themes or topics that are addressed. Most stories will likely touch upon many of these topics, some in major ways and others in minor ways. You should select the most important topics addressed and leave out any topics that are just touched upon in minor ways and are not a focal point of the content. Many textbooks will be arranged thematically, with different chapters devoted to different topics. In this case, if a given topic is the primary focus of an individual chapter, then you should include it, even if this results in many different topics being selected.

If you do not know the language of publication, see what clues you can deduce about the content from the illustrations, if any. If it is impossible to provide a reasonable judgment, then you should choose "Unknown/unable to evaluate."

30b. If you checked the box for "Religion" above, which religion(s)? *(Choose all that apply.)*

☐ **Buddhism**
☐ **Christianity: Catholic**
☐ **Christianity: Protestant**
☐ **Christianity: Unspecified or unknown tradition**
☐ **Hinduism**
☐ **Islam**
☐ **Jehovah's Witness/Watch Tower Society**
☐ **Mormonism/Church of Latter Day Saints**
☐ **Other (Please specify: _____)**
☐ **Unknown**

Level
31a. Is the book labeled for a particular level?
   ☐ Yes
   ☐ No
   ☐ Unknown

   31b. If "Yes," which level or equivalent?
   ☐ **Preschool/nursery/kindergarten**
   ☐ **Primary Grade 1**
   ☐ **Primary Grade 2**
   ☐ **Primary Grade 3**

☒ Primary Grade 4

☐ Other (Please specify: _____)

You should choose "Yes" if the publisher has explicitly indicated an intended or suggested level for this material (e.g., on the cover, in the front matter, introduction). If the suggested level is not for a specific grade (e.g., Beginner, Intermediate, Advanced), then you should choose "Other" and specify.

Level Proxy for Non-Textbook/Supplementary Materials: Maximum Words per Page

32. If the book is a non-textbook/supplementary material (except reference), what is the maximum number of words per page?

      32a. What is the total number of words on the first sample page? _____

      32b. What is the total number of words on the second sample page? _____

      32c. What is the total number of words on the third sample page? _____

You should choose the three pages from the main content with the longest/most amount of text. Count and record the number of words on each page. In most scripts, words will be separated from one another by spaces. If the book is bilingual or multilingual, count the longest text in an African language (e.g., non-European or Arabic).

Note: In the resulting output file (e.g., in Microsoft Excel), a column will need to be created to calculate the mean of the numbers given in Questions 32a through 32c. The calculated mean should then be sorted into one of the five following categories: 0–10 maximum words per page (wpp); 11–25 maximum wpp; 26–50 maximum wpp; 51–75 maximum wpp; and more than 75 maximum wpp. You do not need to perform this calculation themselves at the time of data entry.

Pedagogical Components

33. Does the book-apparently contain the following: *(Choose all that apply.)*

      ☐ A presentation of individual letters, letter sounds, and/or syllables or word parts that could be considered as part of a "phonics approach"

(Note: "Phonics approaches" focus on the connection between the written letters and the sounds they represent in speech. Phonics approaches may include exercises on sound recognition and manipulation, blending sounds into syllables or words, and/or segmenting syllables and words into individual sounds.)

      ☐ Vocabulary development and/or exercises

      ☐ Reading passages

      ☐ Comprehension questions

      ☐ Handwriting or writing instruction and/or practice

      ☐ Grammar instruction and/or exercises

      ☐ Some other type of exercises

Content Familiarity

34a. For the target audience (child speakers of the language of publication), the overall content is probably

      ☐ Very familiar

☐ Semi-familiar

☐ Mostly unfamiliar

☐ Unknown/unable to evaluate

You should consider the following basic definitions:

- **Very familiar:** The content relates directly to the learner's immediate environment (e.g., home, school, village), including familiar daily routines and activities around the home and at school; family relationships; friendships; common objects and animals; well-known folktales; and common occupations of adults in the immediate community (e.g., farming, fishing) to which that the children are likely to have been exposed.
- **Semi-familiar:** The content includes experiences that children may not have personally witnessed or experienced yet, but that are relatively common in the larger context of the region or country (i.e., experiences of which local adults would be aware and/or that which someone would be likely to encounter while travelling within the region or country as a whole)
- **Mostly unfamiliar:** The content includes significant elements of non-African culture and lifestyles that are relatively uncommon in the local context or is set in an exotic fictional world, among others.

You should attempt to generalize to the "typical" child in the language group. For example, many aspects of Western culture may be familiar to children in the upper socioeconomic classes in urban areas, but still unfamiliar to the majority of children in that language group across the country. For any monolingual books in non-indigenous African languages (i.e., shell books) that would potentially be translated into local languages, you should generalize your judgment to a typical child in the country as a whole.

If you do not know the language of publication, see what clues you can deduce about the content from the illustrations, if any. If it is impossible to provide a reasonable judgment, then you should choose "Unknown/unable to evaluate."

34b. Optional comments about content familiarity: [comments]
This item is optional. You should use this space to note any relevant information or clarification about Question 34a; otherwise, you can leave the space blank.

Content Appropriateness
Potentially sensitive content:
Potentially sensitive content includes information that local parents may object to or consider to be inappropriate for their children to read about or see. Many of the following topics can be presented in a culturally and age-appropriate manner without provoking objection or controversy. Because judgments of "content appropriateness" vary according to a child's age, as well as from culture to culture (and even among sub-groups within the same language community), it is left to the end users of these data to ultimately judge the appropriateness of the content for their own context and intentions. The following tags only serve to flag potentially sensitive content for further review by the end user.

35a. The content includes the following: *(Choose all that apply.)*

☐ Traumatic event

☐ Gore

☐ Smoking and/or illegal drug use

☐ Nudity

☐ Sexual content

☐ Other known cultural taboo for the target audience (*Please specify in Question 35b.*)

☐ None noted

☐ Unknown/unable to evaluate

You should consider the following basic definitions:

- **Traumatic event** includes depictions of excessive violence or cruelty, the death of a protagonist or loved one, suicide, murder, war, terrorist attack, abduction, enslavement, or natural disaster.
- **Gore** is a graphic depiction of life-threatening physical injury (e.g., losing a limb, decapitation, spilling excessive blood).
- **Smoking and/or illegal drug use** includes any depiction of characters smoking or getting high.
- **Nudity** is a complicated issue because cultural standards of acceptability vary widely; therefore, you should flag for further review any depictions of exposed genitalia, buttocks, or adult female breasts.
- **Sexual content** includes any implied or explicit depiction of sex, prostitution, sexual abuse, rape, or exploitation.
- Regarding **other known cultural taboo for target audience,** the audience is the speakers of the language in which the book is written. In the case of shell books to be translated later, the target audience is the general population of the country as a whole, which may include different cultural sub-groups with different taboos. You should flag and specify any known cultural taboos for any sub-group, including culturally taboo contact between the sexes, culturally inappropriate attire, and the consumption of alcohol or pork. You do not need to check this option for any of the preceding options already checked.

If you do not know the language of publication, see what clues you can deduce about the content from the illustrations, if any. If it is impossible to provide a reasonable judgment, then you should choose "Unknown/unable to evaluate."

35b. Optional comments about potentially sensitive content: [comments]
This item is optional. You should use this space to note any relevant information or clarification about Question 35a; otherwise, you can leave the space blank.

(If the book is not illustrated, then skip Questions 36 through 43.)
36. Do the illustrations portray any humans or anthropomorphized animals or objects (e.g., animal characters given human traits)?

☐ Yes

☐ No

(If "No," then skip Questions 37 through 43. Otherwise, for Questions 37 through 43, consider any anthropomorphized animals or objects to be the same as people if they are depicted with human attributes of gender, racial/ethnic or religious identity, or disability.)

Equal Frequency of Representation: Gender
37. Gender Balance in Illustrations

☐ **The illustrations portray primarily female characters.**

☐ **The illustrations portray primarily male characters.**

☐ **The illustrations portray an overall balance of both male and females characters (i.e., both genders appear with approximately equal frequency).**

☐ **Gender is not apparent in the illustrations.** *(If gender is not apparent, then skip Question 38.)*

"An overall balance" means that there is an *approximately* equal representation of male and female characters. "Primarily female characters" means that there are noticeably more female than male characters (e.g., 70% to 30%) or vice versa in the book.

Equitable and Transformational (Bias-Free) Roles: Gender
38. Gender: Do the illustrations portray both male and female characters with comparable skills, knowledge, accomplishments, and roles?

☐ **Yes**

☐ **No, male characters on the whole are portrayed with superior skills, knowledge, accomplishments, or roles**

☐ **No, female characters on the whole are portrayed with superior skills, knowledge, accomplishments, or roles**

☐ **Unknown/unable to evaluate**

To be "portrayed with comparable skills, knowledge, accomplishments, and roles" means that the genders on the whole are presented as social, intellectual, and moral equals. The female and male characters participate in similar activities and exercise traditional, non-traditional, leadership, and supporting roles in similar proportions to one another. Neither gender is exclusively portrayed in positions that are considered to be inferior, subservient, or demeaning. Although stories may contain antagonists who do "bad things" and are ultimately "defeated" by the protagonists, these characters are not portrayed as representing their gender.

Equal Frequency of Representation: Ethnic or Religious Group
39. Ethnic and Religious Group Balance in Illustrations

☐ **The illustrations proportionally portray two or more ethnic or religious groups that are present in the local population.**

☐ **The illustrations portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group.**

☐ **The illustrations portray primarily members of only one ethnic or religious group to the exclusion of another group present in the local population (i.e., under-represent one or more ethnic or religious groups that constitute 10% or more of the local population).**

☐ **No ethnic or religious group identity is apparent in the illustrations.** *(If no identity is apparent, then skip Question 40.)*

☐ **Unknown/unable to evaluate** *(If so, then skip Question 40.)*

You should consider the "local population" to be all speakers of the language of publication. In the case of shell books to be translated later, the local population should be considered as the general population of the country as a whole. Any ethnic or religious group that constitutes approximately 10% or more of the local population should be taken into consideration when answering this question. If a population consists overwhelmingly (greater than 90%) of only one ethnic or religious group, and the illustrations portray only that group, you should choose the second option ("portray only one ethnic or religious group, but the local population is composed overwhelmingly of that group.").

Equitable and Transformational (Bias-Free) Roles: Ethnic or Religious Group
40. Ethnic or Religious Groups: Do the illustrations portray the members of different ethnic or religious groups with comparable skills, knowledge, accomplishments, and roles?

☐ **Yes**

☐ **No, one ethnic or religious group is portrayed with "superior" skills, knowledge, accomplishments, or roles**

☐ **Unknown/unable to evaluate**

To be "portrayed with comparable skills, knowledge, accomplishments, and roles" means that the groups on the whole are presented as social, intellectual, and moral equals. The groups participate in similar activities and exercise traditional, non-traditional, leadership, and supporting roles in similar proportions to one another. No groups are exclusively portrayed in positions that are considered to be inferior, subservient, or demeaning for that group. Although stories may contain antagonists who do "bad things" and are ultimately "defeated" by the protagonists, these characters are not portrayed as representative of a whole group.

Equal Frequency of Representation: Disability
41. Disability: Do people with disabilities appear proportionally in the illustrations?

☐ **Yes, people with disabilities appear and constitute approximately 15% or more of the people or characters portrayed.**

☐ **No, people with disabilities appear, but constitute fewer than 15% of the people or characters portrayed.**

☐ **No, people with disabilities do not appear at all.** *(If people with disabilities do not appear at all, then skip Question 42.)*

It is important to note that people with disabilities represent approximately 15% of the world population, so to "appear proportionally," they would need to constitute approximately 15% of the people or characters portrayed.

Equitable and Transformational (Bias-Free) Roles: Disability

42. Disability: Do the illustrations portray the people with disabilities with skills, knowledge, accomplishments, and roles that are typically attributed to those without disabilities?

□ Yes

□ No

□ Unknown / Unable to evaluate

43. Optional comments on equal frequency of representation or on equitable and transformational roles (Questions 37 through 42): [comments]

This item is optional. You should use this space to note any relevant information or clarification about Questions 37 through 42; otherwise, you can leave this space blank and tap "Next."

<u>Language</u>

44a. This book is

□ **The original version**

□ **A translation**

□ **Both (i.e., if bilingual)**

□ **Unknown/unable to evaluate**

44b. If the book is a translation, then what is the name of the translator(s): [name] or □ Unknown ("888")

Follow the same guidelines for recording the translators' names as for authors (i.e., record up to three names who are listed as translators). You should record the names as they appear, in the order in which they appear, separated by commas. If more than three names are listed as translators, then you should record the first three names and add "and Others" at the end. If no translators are noted in any identifiable way, then you should enter "888" for "Unknown."

45. The text is

□ **Monolingual (one language and script)**

□ **Bilingual (two languages and/or scripts)**

□ **Multilingual (three or more languages and/or scripts)**

You should consider only the main text of the book (i.e., some front matter may be bi- or multi-lingual, but if the content of the book itself appears in only one language, then you should choose "Monolingual").

In probably rare cases, a book may be written in two scripts, even if the scripts depict the same language. In these cases, you should treat a dual-script book also as "bilingual," regardless of whether the languages depicted by each script are the same or different.

Note: Tangerine will repeat Questions 46 through 51 for up to three languages and/or scripts, depending on whether "monolingual, bilingual, or multilingual" is checked in Question 45.

46. Language Common Name: [language name]

47. ISO 639 Language Code: [three-letter code]
48. Dialect (if applicable): [dialect]

Before beginning data collection, Country Coordinators will provide a list of all the languages that you will most likely encounter in their respective countries. These languages will be available in the form of drop-down menus in Tangerine. You should choose the language common name, International Organization for Standardization (ISO) code, and dialect (if applicable) from the drop-down menu. You should choose the most specific option possible (e.g., the one for a specific dialect of that language, if known).

Note: Tangerine will automatically insert known information about the tonal status and orthography status of each language based on the options chosen earlier from the menu.

If this language is not on the drop-down menu, then you should select "Other" under the appropriate country. Tangerine will then prompt you to manually enter the data for Questions 46 and 47. (Note: Question 48: Dialect distinctions will not be considered in the case of lesser known languages.) Consultants should refer to the language names and ISO codes from the *Ethnologue* at the following Web site: http://www.ethnologue.com/browse.

49. The script in which the text is written is
    ☐ **Latin-based**
    ☐ **Arabic-based (e.g., Ajami, Wolofel)**
    ☐ **Sabean (Ethiopic)**
    ☐ **Amharic Fiedel**
    ☐ **Other, unknown**
    ☐ **Other, known (Please specify: _____)**

50. If the text is written in a Latin-based script, are diacritics used?
    ☐ **Yes**
    ☐ **No**
Examples of diacritics appear at the following Web site: http://en.wikipedia.org/wiki/Diacritic

51. If a standardized orthography exists for this language, either by official sanction and/or by general consensus, does this text appear to generally conform to that standard?
    ☐ **Yes, overall**
    ☐ **No, the text is written in an older or non-standard orthography that would need to be updated**
    ☐ **Unknown/unable to evaluate**

You should skim through the text and note the general orthography used. You should ignore minor typographical errors unless they are widespread and systematic. *Only answer this question if you have adequate expertise in this language to recognize whether it is written in the standardized orthography*; otherwise check "Unknown/unable to evaluate."

52. Optional Final Comments

You should use this space to record any other relevant comments or notes that you want to accompany this entry, including any clarifications of your entries for any items. If you do not have any comments, then you may leave this section blank and just tap "Next."

Final Submission Confirmation

Have you finished recording all the data for this entry, have you verified that it is correct, and are you ready to save and submit this entry once and for all?

If you are completely finished with this entry, tap "Yes," "Next," and then "Save Result." It is important to note that you will not be able to make any further changes to this entry after that. If you need to review or make changes now or later, then tap "No." Then, you can either tap the "Back" button to navigate back to the screen(s) that you want to review or change, or you can tap the Tangerine icon at the top of the screen to exit this entry for now and resume it at a later time.

Photographs

Before continuing to the next entry, take the following photographs of this book with the Unique Book ID code (that you copied down from Question 1) visible in the photo (Note: If you are taking the photograph with the tablet camera, you will need to exit the Tangerine application temporarily to do so.)

- Front and back covers
- Copyright page (if applicable)
- Table of Contents (if applicable)
- Three page spreads from the main content.

Be sure that the text is clearly visible in each photograph.