

Blueprint for the Use of Evidence in Language of Instruction (LoI) Decisions (BUILD)

Senegal Report

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Contents

Acronym List	v
Acknowledgements.....	1
Executive Summary.....	2
Introduction	4
Objectives.....	5
Overarching BUILD Approach	5
The BUILD Framework	6
The BUILD Progression Scale	11
The Science of Bilingual Reading	15
Senegal Evidence Review.....	17
Methods.....	18
FLN Goals and Language Policy.....	24
Evidence and Data	33
Teaching and Learning.....	57
Monitoring and Evaluation	79
Summary and Assessment of System Progression	84
Senegal Blueprint.....	90
Annex A. Consultation Guide	103
Endnotes	113

Figures

Figure 1. BUILD approach	6
Figure 2. BUILD framework	6
Figure 3. AIR's biliteracy house	16
Figure 4. Timeline of bilingual education programming in Senegal	30
Figure 5. Student literacy task scores	40
Figure 6. Grade 1 student French scores	41
Figure 7. Language skills among students sampled in Dakar and Fatick	53
Figure 8. Language skills among students sampled in Matam	54
Figure 9. Language skills among students sampled in Kaolack	54
Figure 10. Relationship between L1 and French decoding skills among Senegalese learners	56
Figure 11. French decoding skills in relation to French language comprehension skills for Senegalese learners	57
Figure 12. Guide lesson concepts	59
Figure 13. Guide lesson concepts	60
Figure 14. Image examples of key MOHEBS guides	68
Figure 15. FLIP materials	69
Figure 16. Pedagogical guide formative evaluation example	70
Figure 17. AIR GPE KIX pilot strategies tied to formative assessment results	70
Figure 18. Head teachers' rankings on increasing dedicated school time for L1	76
Figure 19. Progression criteria for LoI policies	85
Figure 20. Progression criteria for evidence and data use	86
Figure 21. MOHEBS curriculum strengths and areas for growth	86
Figure 22. Progression criteria for curriculum and materials	87

Figure 23. Progression criteria for teacher recruitment and placement	88
Figure 24. Progression criteria for teacher PD.....	88
Figure 25. Progression criteria for community engagement.....	89
Figure 26. Progression criteria for M&E	89

Tables

Table 1. BUILD progression scale	14
Table 2. Data and/or project reports reviewed for quantitative analysis	23
Table 3. MOHEBS Curriculum	58

Acronym List

AIR	American Institutes for Research
ACER	Australian Council for Educational Research
ADLAS	Association for the Development of the Saafi Language
AMPL	Assessments for Minimum Proficiency Levels
ARED	Associates for Research and Education for Development
BUILD	Blueprint for the Use of Evidence in Language-of-Instruction Decisions
CBEB	Curriculum Bilingue de l'Éducation de Base
CE1	Cours Élémentaire 1
CE2	Cours Élémentaire 2
CEB	Curriculum de l'Education de Base
CFEE	Certificat de Fin d'Études élémentaires
CI	Cours d'Initiation
CP	Cours Préparatoire
CRFPE	Centres Régionaux de Formation des Personnels de l'Éducation
CVC	Consonant-Vowel-Consonant
CWPM	Correct Words per Minute
DALN	Directorate for Literacy and National Languages
DPLN	Directorate of the Promotion of National Languages
EGRA	Early Grade Reading Assessment
ELAN	Programme École et Langues Nationales
ELAN-Afrique	École et Langues Nationales en Afrique
EMiLe	Projet d'Education Multilingue
EMIS	Education Management Information System
FCFA	Franc de la Communauté Financière Africaine
FLN	Foundational Literacy and Numeracy
FLIP	Foundational Literacy Improvement Package
G2G	Government-to-Government

IAS	Inspections d’Académie
INEADE	Institut National d’Etude et d’Action pour le Développement de l’Education
KAP	Knowledge, Attitudes, and Practices
L1	First Language
L2	Second Language
LITES	Language of Instruction Transition in Education Systems
LMICs	Low- and Middle-Income Countries
LoI	Language of Instruction
LPGS	Lettre de Politique Générale pour le Secteur de l’Éducation et de la Formation
LPSD	Lettre de Politique Sectorielle de Développement
LPT	Lecture Pour Tous
M&E	Monitoring and Evaluation
MEN	Ministry of National Education
MILO	Monitoring Impacts on Learning Outcomes
MOHEBS	Harmonized Model of Bilingual Education in Senegal
PADES	Plan d’Amélioration et de Développement de l’Éducation du Sénégal
PALME	Partenariat pour l’Amélioration de la Lecture et des Mathématiques à l’Ecole Élémentaire
PAQEEB	Projet d’Amélioration de la Qualité et de l’Équité de l’Éducation de Base
PAQUET	Programme d’Amélioration de la Qualité, de l’Équité et de la Transparence
PAQUET-EF	Program for Improving Quality, Equity and Transparency in Education and Training
PASEC	Programme d’Analyse des Systèmes Éducatifs de la CONFEMEN
PD	Professional Development
PISA	Program for International Student Assessment
PNLSE	Programme National de Lecture Scolaire à l’Elémentaire
RELIT	Renforcement de la Lecture Initiale pour Tous
RNSE	Rapport National de Suivi de l’Éducation
SDI	Service Delivery Indicators
SoBR	Science of Bilingual Reading
SIMEN	Système d’Information pour la Gestion de l’Éducation Nationale

SNERS	Système National d'Évaluation des Rendements Scolaires
TLM	Teaching and Learning Materials
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development

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Executive Summary

Senegal is at a pivotal moment in its education reform journey, with foundational learning and language of instruction (LoI) at the heart of national priorities. The BUILD framework—Blueprint for the Use of Evidence in Language of Instruction Decisions—developed by AIR with Gates Foundation support, offers a comprehensive, evidence-based approach to guide Senegal’s LoI policy and practice. This framework is designed to ensure that every child acquires foundational literacy and numeracy (FLN) skills in languages they understand, while also preparing them for success in French and beyond.

Drawing on evidence from an extensive document review process, in-depth stakeholder consultations, and quantitative review of existing datasets, we have identified four high priority actions across the system:

1. **System-Wide Language Mismatch Alignment.** There is significant mismatch across student language ability, teacher language ability (linguistic skills and pedagogical abilities), and school LoI policies and practices. These dimensions need to be tracked with high-quality data that is multilingually sensitive, and then all components of the system need to be updated to reflect the data and to support teachers to teach both the Senegalese languages they are expected to teach, and to teach the transition to French appropriately.
2. **Full Integration of French Transition and Bilingualism Across the Curriculum.** While the country has made immense leaps in the design of Senegalese language foundation learning, there is still very little scientifically backed and practically oriented focus on transitioning to French LoI by upper primary grades. This requires a thorough understanding of transitioning including timing, teaching, and testing, and the technical design for a full L1-L2 transition model to support bilingual foundational learning outcomes.
3. **Teacher Professional Development and Ongoing Support for Implementation of MOHEBS.** One clear issue that was apparent across all tiers of the education system is that teachers need much more targeted and *ongoing support for the implementation of the national education policy, Modèle Harmonisé d’Enseignement Bilingue au Sénégal (MOHEBS)*. While MOHEBS is a scientifically grounded policy direction on paper, teachers need continuous support on the implementation of the policy.
4. **Better Bilingually Designed Monitoring and Evaluation (M&E) Systems and Research Priorities.** It is recommended to include explicit bilingual FLN targets (e.g., L1 decoding

thresholds, oral French vocabulary thresholds, words-correct-per-minute benchmarks for reading comprehension by language and grade) and generate evidence on the effectiveness of MOHEBS language transition models. This also includes the need for research to deepen our understanding of classroom-level transfer thresholds across key language pairs (e.g., Wolof-French, Pulaar-French), using cohort tracking and econometric models (SEM, GAM) to determine when L1 decoding and L2 oral language skills are sufficient to safely accelerate French literacy instruction and French-medium instruction transitions. In the longer term, there is a need for institutionalization and scale of the system. This would require building a bilingual research database and hub, training inspectors, regional offices and teachers to routinely use foundational learning assessments, MOHEBS and classroom assessment data to level learners and plan “language-sensitive pedagogy,” and aligning coaching and deployment policies with aligned language mapping data.

Introduction

Foundational learning—the ability to read and do basic arithmetic—has a profound influence on lifelong learning and earning potential.¹ However, millions of children across low- and middle-income countries (LMICs) are nowhere near acquiring foundational literacy and numeracy (FLN) skills.² While this problem includes many facets, language plays a central role. At least half—and in some countries over 90%—of all children in LMICs are being taught in languages they do not use and understand.^{3,4} Most children will have to learn to read at least two languages in their schooling years, making **bilingual and multilingual foundational learning** the norm across LMICs.

The fact that students need to learn in their own language to acquire foundational skills is not only intuitive but backed by evidence from across the world and from across disciplines.^{5,6,7} The benefits include better cognitive and learning outcomes in *both* the first language (L1) and in the second (or later acquired) language (L2);^{8,9} prolonged school attendance, more engagement from parents and communities;¹⁰ and some evidence of cost efficiency.^{11,12}

At the same time, education stakeholders increasingly demand access to education in a child's L2—most often a post-colonial language—earlier in their educational trajectory, given the strong relationship between skills in these languages and socioeconomic mobility.^{13,14} Governments often opt to educate children *only* in the post-colonial language. In addition, varying political agendas cause the sociopolitical milieu affecting LoI choices to constantly shift.¹⁵ Therefore, decisions related to which language(s) to teach in, for how long, and to what end must be both politically palatable and empirically effective to improve FLN outcomes.

To support these decisions, there is an urgent need to treat FLN goals through the lens of bilingualism and multilingualism—not by framing the question of the acquisition of one language against another but by promoting learning outcomes in bilingual and multilingual education contexts. Decision makers need a systematic framework that politically and empirically reconcile this tension between the need to teach children in a familiar language for as long as possible and the need to teach children in an unfamiliar language as early as possible.

To meet this need, American Institutes for Research® (AIR), in collaboration with the Gates Foundation, has developed the **Blueprint for the Use of evidence In Language of instruction (LoI) Decisions (BUILD)** to provide an *empirically grounded and politically workable* framework to guide decision makers to improve bilingual and multilingual foundational literacy outcomes across LMICs. We are working closely with education decision makers and stakeholders across four countries in sub-Saharan Africa—Cote d'Ivoire, Mozambique, Rwanda, and Senegal—to

apply the BUILD project framework and create actionable blueprints in each country to help leaders improve foundational learning outcomes.

Objectives

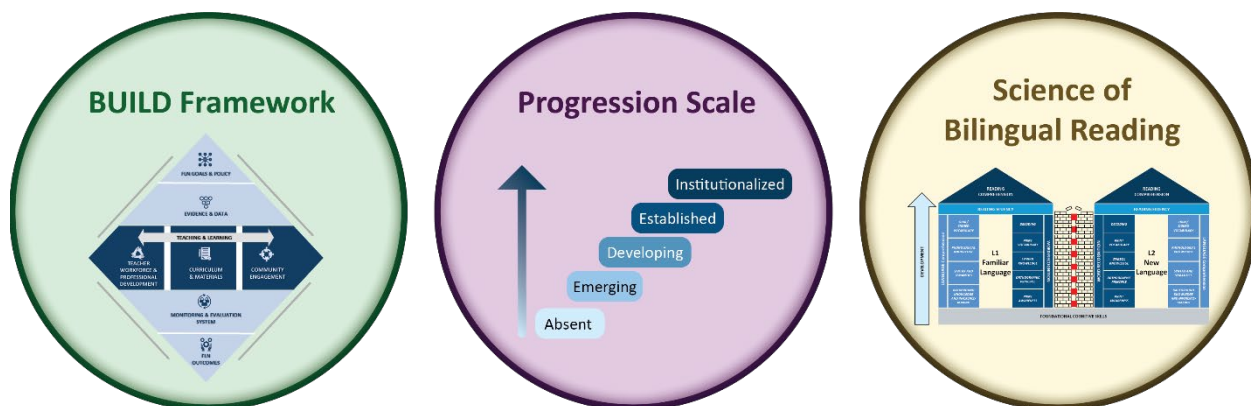
The main objective of the BUILD project is to support governments and education stakeholders to make effective LoI decisions to improve foundational literacy outcomes in their countries. BUILD aims to bring holistic understanding about how language is at the heart of improving foundational learning outcomes, including empirical, practical, and political considerations at key levels of the education system. The BUILD project specifically focuses on the question: ***What language(s) are educators going to use to overcome the foundational learning crisis in a specific country, and—once that is decided—how?***

This perspective allows us to overcome the consistent and prevalent issue of either advocating for instruction solely in children’s familiar languages without much foresight into the transition process or focusing solely on the post-colonial language without much planning for the integration of the familiar languages to better support foundational learning outcomes. The BUILD project also aims to support decision makers to get a better sense of how different bilingual education models¹⁶ may be effective given all aspects of a country’s education system.

Overarching BUILD Approach

Our approach to this work includes the development of three components (see Figure 1) – the BUILD framework, the BUILD progression scale, and the theoretical model for the Science of Bilingual Reading (SoBR), also known as AIR’s Biliteracy House Model. The **BUILD framework** (Figure 2) encompasses the components of the educational system that will influence the relationship between language and learning. The **progression scale** (Table 1) helps track a country’s progress on the path toward effective integration of language considerations into solving learning poverty. The **theoretical model** (Biliteracy House; Figure 3) outlines the scientific underpinning of reading acquisition in bilingual contexts, which is central to all other decisions. Bringing these together, the BUILD project provides stakeholders with a blueprint for achieving the desired foundational literacy outcomes in bilingual and multilingual contexts.

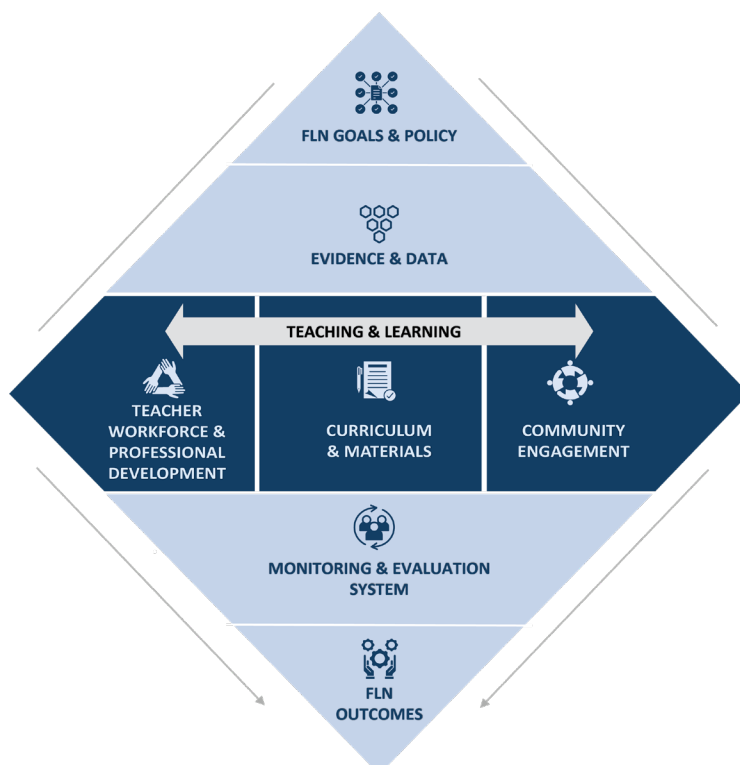
Figure 1. BUILD approach



The BUILD Framework

The BUILD framework is designed as a series of tiers, representing the core components of the education system that are likely to influence the relationship between language and learning. The tiers are arranged in a diamond shape from top to bottom, with arrows indicating improvement of FLN outcomes as the overall goal. The top tier and the bottom tier are narrower than the center as they represent more focused topics: the FLN goals (topmost tier) and FLN outcomes (bottommost tier). These are presumably the most important components but the least “expansive” in terms of the components and concepts they cover—and thus are represented as taking up less space. As we work down the model toward the middle, the conceptual coverage increases, with the center of the model being the widest, as it represents the largest sections of the system together. These pieces work in tandem conceptually and temporally and are therefore represented next to each other as opposed to above or below each

Figure 2. BUILD framework



other. In other words, curriculum and materials, teacher professional development (PD), and community components are all pieces of the education system that must be effective and functional at the same time. Each represents a large swathe of ideas, people, and materials involved, justifying its central and wide space in the model. In the following sections, we discuss each tier and present a set of questions that guide us in unpacking and understanding that tier in each country.

FLN Goals and Policy

The top tier, FLN goals and policy, represents the key objectives and policies that guide national education decision making at the primary-school level in terms of foundational learning. While foundational learning itself may or may not be part of the policy, there is an increasing presence of the term (or similar terms such as “early reading,” “early math,” or “basic education outcomes”) in policy documents and policy dialog, propelled in large part by evidence for its centrality in lifelong outcomes.¹⁷



The reason the BUILD framework uses “FLN goals” rather than “LoI goals” or another term that focuses solely on language is that the separation of language policies and FLN policies is part of the problem with identifying how to improve FLN outcomes (the top of the diamond) across the remaining systemic components of an education system. Decision makers need effective tools and guidance to articulate and define a country’s FLN goals *through language*. In other words, national FLN goals (e.g., “the objective of all children reading”) should clearly state the language(s) in which students should achieve learning goals (e.g., “all children will be reading in X language[s]”). At a minimum, policymakers must understand and articulate the language(s) in which students should achieve their goals.

In addition, each BUILD country report will provide a brief historical analysis of the LoI policies, stakeholder analyses, and key roadblocks in its implementation. FLN goals and policies are not static concepts. They are rooted in deep historical, cultural, and sociopolitical realities that constantly shift and influence each other over time.¹⁸ The key questions that we aim to answer under this tier are:

What are the country’s language-specific FLN goals?

What is the LoI policy (if there is one)?

What are the pertinent political realities that might affect the LoI policy’s implementation and future sustainability?

Evidence and Data

The second tier of the BUILD framework represents evidence and data on the status of learning and language use in the country. It represents a compilation of and secondary analysis of the extant data that our team could access at the time of publication of this report. It incorporates, for example, results on students' early grade reading or math scores, language abilities of students and teachers, empirical information on when children are best able to transfer from learning in one language to learning in another (if available), and the orthographic and linguistic properties of the languages students are expected to learn. This information helps us understand various aspects of the transfer of language and reading skills and timings of learning trajectories.



Too often, the generation, analysis, and application of evidence occurs in a vacuum, wherein the linkage to actual implementation and practice remains untapped. Filling this gap between the production of rigorous evidence and policymakers' use and demand of evidence is one of the bedrocks of the BUILD approach. By incorporating this step within the framework, stakeholders can see multidisciplinary results (or gaps in the evidence) for the most pertinent questions to developing and successfully implementing an Lol policy that is likely to improve FLN scores.

The following questions guide this section:

What are learners' current FLN levels across different languages, and how are these assessed?

What languages do teachers and learners understand best, and how do these align with the current languages of instruction (Lol)?

What factors influence first language (L1)–second language (L2) transfer and transition processes?

Data on the first question will allow stakeholders to assess whether and to what extent they are on track to achieving their FLN goals, get a better sense of indicators they need to measure for bilingual students, and help determine in what language(s) they should test students' FLN skills.

The second question helps us understand the *degree of proficiency* both students and teachers have in various languages. Most reports and available information tend to focus on children's FLN skills in a single language (most often the Lol). This makes it impossible to determine whether they have better skills in another language, whether they have skills in two or more languages, whether the level of their skill is strongest in the measured language, etc. Measuring

skills in only one language also makes it difficult to judge the extent of linguistic heterogeneity across students in a class. Furthermore, the lack of rigorous evidence on teacher skills—in terms of their own linguistic proficiency levels in the language they are teaching, as well as their pedagogical competence in teaching that language—is a serious impediment to effective teacher placement and training processes. Ultimately, classrooms should have as close a match as possible between the LoI, the proficiency levels of the teachers in both speaking/using that language and teaching that language, and the language proficiency of the majority of students (ideally *all*).

The third question focuses on the evidence that exists on L1–L2 transfer in the languages of the focus country and the impact of this evidence on the development of curricula, teacher training materials, and teaching and learning materials (TLMs). Most early learning programs treat L1 and L2 as separate entities, with many focused on improving national language education and others focused on supporting governments to implement a program in the post-colonial language. In the evidence and data tier, we aim to draw on the evidence of transfer between languages, orthographic and phonological processes that may affect such transfer, and other cognitive and linguistic processes (such as thresholds for transfer, thresholds for vocabulary, etc.) that may be necessary to plan and implement a program that accounts for bilingualism and multilingualism from the beginning.

Teaching and Learning

The central tier focuses on the heart of the education system in many ways—the teachers, curriculum and materials, and parents and communities—all of which support foundational learning outcomes in tandem.



In terms of teacher workforce, it is vital that teachers are placed in schools where they have high levels of proficiency in the language(s) they are expected to teach, as well as high levels of pedagogical skills to teach the language(s) they are expected to teach. In addition, teachers need training to teach bilingual children, in line with the SoBR. This requires a deep analysis of existing pre-service and in-service professional development (PD) opportunities regarding multilingual teaching.

At the classroom level, learning outcomes are only as good as the teachers and the teaching and learning materials (TLMs) they use. Growing evidence specifies some of the key elements that support good teaching and learning in LMICs. For example, education systems need a

strong link between policy expectations and classroom realities.¹⁹ To be effective, systems also need a combination of teacher trainings, high-quality student learning materials, and clear teacher support for teaching and learning.²⁰ What is less clear, however, is how educators should design and implement these materials in bilingual or multilingual programming. In the BUILD framework, we closely examine the TLMs in light of the SoBR and ensure that the curriculum, scope and sequence of skills, pacing guides, and all materials in the classroom align with this theoretical foundation.

The role of communities in supporting literacy is well established, especially the role of parents and caregivers and the home language and literacy environment.^{21,22,23} However, the conceptualization of the home literacy environment and parental involvement (especially in cases of nonliterate parents and mismatches between home and school language) needs careful consideration.^{24,25} As such, for any policy framework to connect with student-level outcomes, it is important to consider community-level engagements and perceptions toward bilingual education. The BUILD framework considers issues such as parental perceptions, especially in terms of demand for language education vis a vis post-colonial language education, the language mismatch between schools and homes, and the degree of parental literacy skills. Together, these dimensions can help leverage resources for nonliterate community members (e.g., by using transferable skills from oral language storytelling) and for places of language mismatch (e.g., by supporting the transfer of home language skills to school language skills).

The following questions guide this tier:

How are language considerations integrated into teacher recruitment, placement, and training (both pre-service and in-service)?

To what extent are the curriculum and TLMs designed to support bilingual and multilingual learners?

How are parents and community members involved in decisions about the LoI?

Monitoring and Evaluation System

In a previous tier of the BUILD framework, we covered evidence and data – which represented an analysis and understanding of the evidence at any given moment in time. In addition, an education system must be able to track, understand, improve, and sustain FLN outcomes over time. A functioning measurement and evaluation (M&E) system ensures that each tier of the education system functions as intended and progresses toward the overarching FLN outcomes.



We conceptualize the M&E tier as a continuous process of data collection, analysis, and data use by system actors to inform programs and interventions to improve learning outcomes. This tier explores whether the country's M&E mechanisms effectively assess the clarity, dissemination, and implementation of FLN goals and policies. It also examines if the M&E systems evaluate the effectiveness of teacher PD, the appropriateness and use of curriculum and materials, and the extent of community engagement. These assessments help identify areas for improvement and inform iterative adjustments to program implementation. Importantly, M&E also supports accountability by providing stakeholders with timely, actionable insights that can guide decision making and resource allocation.

This tier will be guided by the following questions:

Does the country have a regularly updated M&E plan, and are there national or subnational mechanisms to use these data for continuous improvement in FLN outcomes?

To what extent does M&E incorporate linguistic considerations, including data on teachers' and learners' Lol?

How are M&E findings used to inform and revise curriculum, teacher training, and Lol policies?

By embedding M&E within the BUILD framework, the model promotes a culture of evidence-based practice and continuous improvement, ensuring that all components respond to the dynamic needs of learners and the education system.

The BUILD Progression Scale

Within each tier, BUILD will support countries to determine their level of development and lead that into an action plan through the BUILD Progression Scale, as shown in Figure 2. The purpose of this scale is to consider each BUILD tier within the country context and—based on the analysis of the available evidence—decide the level at which countries are prepared to institutionalize their FLN goals.

The **BUILD Progression Scale** serves as a diagnostic and planning tool that enables countries to assess their readiness to improve FLN goals through their Lol policies and systems. Organized into five developmental stages—Absent, Emerging, Developing, Established, and Institutionalized—the scale reflects a country's journey from fragmented or nonexistent efforts to full integration of Lol within national education systems. Each stage highlights progress across key system components: policy, teacher workforce, professional development, curriculum and materials, community engagement, and monitoring and evaluation. Countries

may be at different stages for different criteria; for example, a country may be at the “Institutionalized” stage for its FLN goals and Lol policy but at the “Absent” stage for its teacher recruitment and placement practices.

At the **Absent** stage, countries lack an official Lol policy to support FLN goals. Teacher recruitment and placement practices do not consider language skills, and educators receive no training to accommodate Lol to understand and improve FLN goals. Instructional materials in relevant languages do not exist, and the curriculum fails to reflect linguistic realities. No systems exist for monitoring learning or evaluating language-related teaching practices. Communities do not engage in conversations about language in education, and parents do not know which languages schools use or why they matter for learning.

The **Emerging** stage marks the beginning of awareness and early action related to language. An Lol policy may exist, but it is often fragmented or poorly aligned with FLN goals. Teacher recruitment practices may acknowledge, but not yet operationalize, language dynamics. Training on multilingual instruction is minimal and insufficient for teacher preparedness. Some instructional materials begin to reflect language considerations, but they are inconsistent and limited in scope. Community engagement is largely one-way, consisting of awareness campaigns or information sharing, with minimal opportunities for parent or community input. Monitoring systems, where they exist, focus on outputs rather than learning outcomes.

At the **Developing** stage, countries demonstrate increased commitment to incorporating evidence related to language needs. Countries have more clearly defined Lol policies, which they back by government action. Teacher recruitment and placement practices begin to consider language backgrounds more systematically, though gaps remain. Pre-service and in-service training become more robust, incorporating both theoretical and practical strategies for teaching in multilingual classrooms. Instructional materials and curricula begin to reflect the SoR and students’ language contexts. Education systems consult communities through activities such as language mapping or early reading initiatives but do not fully consider their input for decision making. Policymakers monitor student learning outcomes, although they do not consistently use data to refine strategies.

The **Established** stage is characterized by coherent and systematic implementation of evidence-based practices related to bilingual and multilingual learning. Clear operational guidelines and implementation structures accompany the Lol policy. The linguistic context informs teacher placement practices, and training systems integrate comprehensive professional development related to L1 teaching and transition. Instructional materials and curricula align with multilingual pedagogy and the SoBR. Monitoring and evaluation systems produce data on learning outcomes, which decision makers use to adapt and improve policies and practices.

Education systems engage communities strategically by empowering families to support learning in home languages. Local leaders may contribute to school governance or teacher support, thus reinforcing Lol implementation.

At the **Institutionalized** stage, national systems deeply embed evidence-based Lol considerations. Education leaders routinely review and adapt all components of the education system, from policy to practice, in alignment with FLN goals. Teacher training is dynamic and responsive to shifting linguistic and demographic realities. Educators regularly update high-quality, evidence-based instructional materials. Monitoring and evaluation systems track both immediate outcomes and long-term impacts of Lol policies, thus supporting data-driven decision making. Community engagement is no longer a peripherality, a formalized and valued part of the education ecosystem. Parents and community members actively shape curriculum, materials, and school governance, ensuring that language choices reflect and support learners' needs.

Ultimately, the BUILD Progression Scale underscores that effective implementation of Lol policies requires comprehensive system-level reform. It depends on sustained political commitment, investment in teachers, high-quality resources, strong accountability systems, and genuine partnerships with the communities that schools serve.

Table 1. BUILD progression scale

Component	Absent	Emerging	Developing	Established	Institutionalized
FLN goal(s) and Lol policy	No official Lol policy is in place to reach the FLN goal(s).	A Lol policy exists, but it is vague, fragmented, or not aligned with the FLN goal(s).	A Lol policy is defined, with growing government commitment and early implementation to achieve the FLN goal(s).	A Lol policy is applied in practice and supported by implementation structures in support of the FLN goal(s).	A Lol policy is embedded in national education systems and reviewed regularly in alignment with the FLN goal(s).
Evidence and data	Education stakeholders do not use or have access to evidence related to student language skills to inform and adapt policies and practices.	Education stakeholders have access to some data related to student language skills, but the data are only available on a limited scale or have suboptimal quality.	Education stakeholders have access to student language mapping on a large scale, some evidence on language transfer between some L1s and the desired L2, and some other Lol indicators.	Education stakeholders have access to student and teacher language mapping data on a national scale, language transfer data between the most prominent L1s and the desired L2, and data on additional Lol indicators.	Education stakeholders not only have access to language mapping, language threshold data, and other Lol indicators aligned with all BUILD tiers but also regularly use and update those data to inform policies and practices.
Teacher recruitment and placement	No official teacher recruitment or placement plan is in place that accounts for teachers' language skills.	A teacher recruitment and placement plan that accounts for teacher language skills exists, but it is vague, fragmented, and not operationalized.	A teacher recruitment and placement plan exists with a focus on Lol, though it is in early implementation and not fully operationalized.	A strong teacher recruitment and placement plan exists with a focus on Lol and is supported by implementation structures.	A strong teacher recruitment and placement plan that focuses on Lol exists, is embedded in national education systems, and is reviewed regularly in alignment with FLN goal(s).
Teacher PD	Teachers receive no pre-service or in-service training on teaching in multilingual contexts or using national languages for instruction.	Teachers receive limited training on teaching in multilingual contexts or using local Lols, but that training is not sufficient for teachers to feel prepared to teach in local languages.	Teachers receive more notable trainings on teaching in multilingual contexts and using Lols, yet these trainings are not yet comprehensive and system-wide. Some gaps exist in teacher preparedness.	Trainings on teaching in multilingual contexts and using national Lols are integrated extensively into in-service and pre-service teacher training.	Ongoing, adaptive training responds to demographic and linguistic shifts among teachers and learners.
Curriculum and materials	The curriculum does not address multilingual teaching. Instructional materials in local languages are unavailable.	The curriculum addresses multilingual teaching to a minimal extent. Some instructional materials integrate language considerations.	The curriculum and materials incorporate the science of reading for multilingual learners, reflecting students' linguistic contexts. Instructional materials increasingly integrate language considerations.	The curriculum and materials are fully aligned with the science of reading for multilingual learners, reflecting students' linguistic contexts.	A high-quality, regularly updated curriculum and corresponding materials support evolving FLN and Lol goals.
Community engagement	Communities are largely unaware of the benefits of multilingual education. Little or no sensitization efforts are in place. Communities have no tools to support children to read in school languages. Communities are not engaged in supporting education in school languages.	Information-sharing efforts such as awareness campaigns may be in place, but they are not yet at scale with proven effectiveness. Families and communities have limited involvement in supporting multilingual education.	Families and communities are generally aware of the benefits of multilingual education. Communities are somewhat engaged in decisions and/or implementation of multilingual education through, for example, language mapping, focus groups, materials development, or supporting student language and literacy development at home.	Families and communities are largely aware of the benefits of multilingual education. Parents and communities actively support learning in the home language and/or the transition to the L2.	Community engagement and commitment to multilingual education is deep and sustained. Families and community members are continually involved in governance, curriculum feedback, material development, and home language and literacy support.
Monitoring and evaluation	No systems are in place to monitor student learning or assess Lol-related practices.	Some basic monitoring of outputs occurs (e.g., enrollment, textbook distribution) but not of student learning outcomes.	Student learning outcomes are tracked but not yet used to refine or inform Lol strategies.	Outcomes are continuously monitored; early evidence of what works is used to adjust approaches.	Robust systems track learning outcomes, assess the impact of Lol policies, and inform iterative policy adaptation.

The Science of Bilingual Reading

As mentioned above, the BUILD framework is grounded in the science of learning to read. Decades of research have led to several influential theoretical frameworks on learning to read (and reading to learn). Given that our current focus is foundational literacy, we rely on the theories of early reading development. We incorporate well-established theoretical models as well as emerging empirical trends from learning to read across languages and scripts and from across monolingual, bilingual, and multilingual models of learning.

First, in terms of the earliest stages of learning to read, the Universal Grammar of Reading²⁶ posits that all writing systems, regardless of language, fundamentally map orthographic (written) to phonological (auditory) information. However, the nature of this mapping varies across languages, influencing how children learn to read. Key dimensions that affect the reading process include:

- orthographic depth (how consistently letters map to sounds),
- symbol set size (the number of unique symbols or graphemes a learner needs to recognize and identify in order to decode words),
- phonological unit size (e.g., syllables vs. phonemes),
- visual complexity of the script, and
- tonality in tonal languages.

These factors are critical in shaping the scope, sequence, and timing of reading instruction.

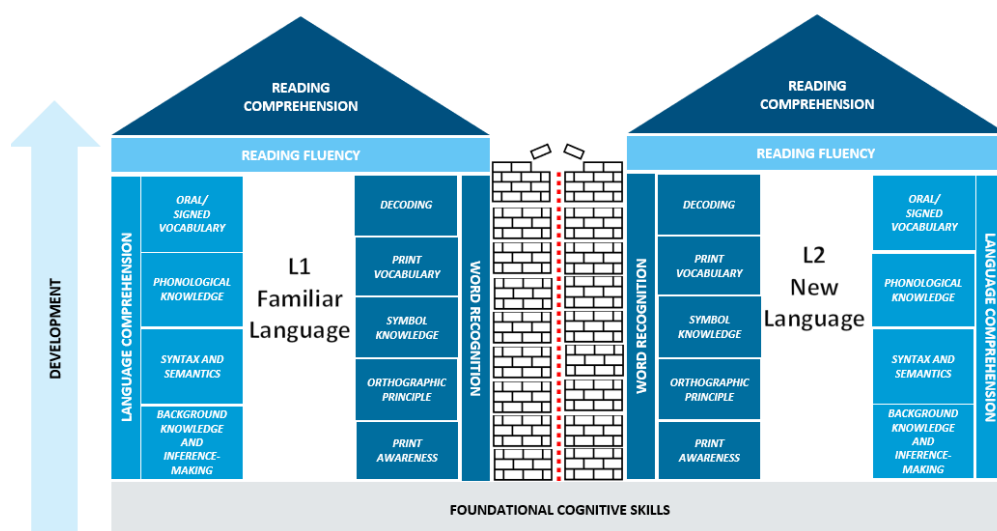
As students' ability develops beyond initial mapping of sounds and symbols toward basic reading comprehension abilities, the Cognitive Foundations of Reading Acquisition Model, articulated by Hoover and Tunmer, provides one of the most influential models of reading comprehension development.²⁷ This model, previously articulated by the authors as the Simple View of Reading, emphasizes that reading comprehension in any language depends on the integration of two core skill sets: language proficiency and decoding (or word recognition). Through a review of multiple studies across language types, it is clear that language proficiency includes a series of subskills such as background knowledge and inference making, knowledge of syntax and semantics (including morphological and other skills), phonological knowledge (i.e., understanding of sounds and sound patterns), and oral or signed vocabulary.²⁸ Word recognition also includes a series of subskills, including print awareness (i.e., understanding of the basic principles of text), knowledge of orthographic principles (i.e., understanding of *how*

sounds and symbols correspond with each other), symbol knowledge (i.e., understanding exactly *what* sounds correspond with specific symbols), and decoding (i.e., the ability to sound out words and symbols).^{29, 30, 31} Language proficiency and decoding then support the acquisition of reading fluency, which is the automatic (quick and accurate) sounding out of words and passages. Altogether, these abilities support reading comprehension—the overall goal of reading comprehension (or foundational literacy).

In bilingual settings, the Transfer Facilitation Model³² offers a framework for understanding how L1 and L2 abilities influence reading skills in L2. According to this model, predictable and significant patterns of transfer, cross-linguistic cognitive resource sharing, and transfer facilitation affect literacy acquisition. This means that skills acquired in one language can support and enhance reading development in another, highlighting the interconnected nature of bilingual literacy acquisition. Children who learn to read two or more languages develop a metaphorical “house” for each language, as illustrated in AIR’s Biliteracy House Model (see Figure 3). The model provides an intuitive and metaphorical representation of the skills and subskills (pillars and bricks) and transferable skills (shared walls) needed to support the development of biliteracy acquisition. In these cases, the child’s L1 impacts the development of reading in second or later-acquired languages in significant and predictable ways, namely the transfer of decoding skills from an L1 to an L2 when an empirically defined threshold level is reached.^{33, 34, 35}

The BUILD framework will apply the biliteracy house as its theoretical underpinning for the Science of Bilingual Reading (SoBR), and as such, the model will guide all aspects of our analyses and the development of the country Lol blueprints.

Figure 3. AIR’s biliteracy house



These theoretical models provide a comprehensive foundation for understanding how children learn to read in bilingual and multilingual contexts. By integrating insights from the Universal Grammar of Reading, the Cognitive Foundations of Reading Acquisition, and the Transfer Facilitation Model, the BUILD framework offers a robust, evidence-based approach to biliteracy development. The biliteracy house model operationalizes these theories into a practical structure that highlights both language-specific and transferable skills. As the guiding framework for BUILD, it will inform all aspects of our analysis and the design of country-specific Lol blueprints, ensuring that our work is grounded in the science of how children learn to read and read to learn across languages.

Senegal Evidence Review

Senegal, a focus country for the Blueprint for the Use of Evidence in Language-of-Instruction Decisions (BUILD) project has been in the process of integrating national languages in primary school education for years. After many experiments with bilingual learning over the past decades,^{36,37} the Ministère de l'Éducation Nationale (Ministry of National Education, or MEN) has chosen to implement bilingual educational reform throughout the country. The national reform, called the *Modèle Harmonisé d'Enseignement Bilingue au Sénégal* (Harmonized Model of Bilingual Education in Senegal, or MOHEBS), is a standardized model for national language instruction, building off previous experiments in the country. With the support of national and international partners, the MEN is implementing MOHEBS through large-scale programs in six national languages and French in twelve of fourteen regions of the country, with plans to expand to two additional languages in school year 2025-26, and to the remaining regions by 2028.



AIR and the Gates Foundation's BUILD project aims to help stakeholders in Senegal's primary education system effectively use evidence for Lol decisions as they expand bilingual programming across the country. There is widespread commitment to improving bilingual outcomes for children in primary school across the nation, especially at national and regional stakeholder levels. There have been numerous TLMs developed in multiple national languages, structured programs for teaching FLN mainly through national languages with some focus on French transition and French subjects. There is also a variety of TLMs and teacher training resources available and tested mainly in Wolof, Pulaar, and Seereer. The impactful Ndaw Wune

remediation program for foundational learning, developed by ARED, a Senegalese NGO, has recently been evaluated by AIR and shown significant improvements in key foundational literacy outcomes of decoding and reading comprehension in Senegalese national languages. There are currently plans for large-scale expansion of remediation through existing education infrastructure. Given this critically important juncture in time in Senegal educational history, this report provides national leaders an evidence-based and politically sensitive framework to support bilingual and biliteracy outcomes in the country.

The main objective of this country report is to conduct a comprehensive review of the evidence on the role of LoI for supporting bilingual foundational literacy outcomes in country by providing empirical answers to the guiding question for the BUILD framework, highlighting areas where evidence is sparse or non-existent, and designing a blueprint for the nation's roadmap to improving FLN outcomes across the nation. In the following sections, we describe the methods employed to review the evidence, and the results of the evidence review, and key actions that stem from each result to support country leaders to design a bilingual education FLN roadmap.

Methods

To address the key questions guiding the BUILD framework, we conducted an in-depth desk review of pertinent documents related to basic education and LoI policies and programming, consulted with key stakeholders, and conducted secondary quantitative data analysis on aspects of the BUILD framework related to LoI and foundational learning outcomes.

Document Review

Our evidence collection process included aggregating the documents and data that were available to our team from previous projects¹ related to LoI in Senegal and working with our national consultant, Professor Aliou Seck, a well-reputed linguist who is a leader of Senegal's bilingual education reform, to provide key documents for desk review. These documents covered each tier of the BUILD framework and included, for example, policy and strategy documents related to basic education, academic texts related to language use and multilingual education in the country, reports from governmental and nongovernmental organizations related to education programming and academic outcomes, and curricula and teaching materials for bilingual education programming.

¹ This includes our previous GPE KIX contract to conduct language mapping in Senegal – [link](#) – as well as our current work to build on this research, implementing supports for MOHEBS in Fatick to support foundational literacy – [link](#). This also builds on our current evaluation of ARED's Ndaw Wune program – [link](#).

After compiling 147 documents, we reviewed each for potential inclusion in the document review. To do so, a member of our review team, which comprised an AIR researcher, research assistant, and project associate who are all fluent in French and English, assessed whether each document contained information relevant to the guiding questions and was recent enough to provide pertinent data related to the BUILD framework topics.² The assessment of document relevance involved first reviewing the title and abstract/introduction (if available) and then scanning the content until the reviewer had obtained sufficient information to determine if the document contained relevant information to address the guiding questions. Documents were reviewed twice by different team members. In any case of uncertainty regarding document relevance, documents were retained for further analysis. The document review also relied on our understanding of the educational context in Senegal from other research projects that AIR has led, such as the GPE-KIX program supporting bilingual teacher professional development with the Fatick regional government in support of MOHEBS, and the independent impact and cost-effectiveness evaluation of the Ndaw Wune remedial education program.

During this review, we categorized documents by tier within the BUILD framework. For example, we tagged a document on national training and recruitment policies to the “Teacher Workforce and Professional Development” sub-tier, and we tagged a report on the implementation and outcomes of a bilingual education program to multiple relevant sub-tiers, including “Foundational Literacy and Numeracy (FLN) Assessment Data,” “Teacher Workforce and Professional Development,” and “Community Engagement.” Then, for each document in our evidence synthesis, the review team produced standardized analytical summaries using Open AI GPT 4.0 that included translated key findings. Two members of the review team (a researcher and a research assistant) each evaluated these syntheses to ensure accuracy to the original document. In cases of hallucination, we omitted the AI summaries in favor of human review.

The research team manually synthesized all relevant evidence from the documents and presented a robust and extensive review of evidence. Using the AI summaries for support, these AIR analysts conducted an additional, in-depth human review of the most relevant documents (i.e., key documents that provided the most crucial data related to the guiding questions) to integrate into the evidence review. For example, for documents related to teacher professional development, we deemed policy documents about teacher qualifications and documents detailing teacher training plans through MOHEBS as highly relevant for in-depth review, but we deemed a document related to training plans for teachers of nonformal, adult

² In many cases, we omitted documents that were published before recent bilingual education reforms, when the information therein would likely no longer apply to Senegal’s contemporary education context. We also excluded, for example, data on student language and literacy competencies when more recent data were available. We included documents related to language orthography, for example, as old as 2003, since that information would be more enduring.

literacy education in Senegal as not relevant to the topics of study. In cases where AIR found topical gaps in our document review, we sought out additional documents through online searches and requests for information from our national consultant and stakeholder (see the subsequent section).

This approach facilitated the processing of a wide breadth of literature in French and English while ensuring consistency in analysis and presentation. The methodology balanced efficiency in handling large document volumes with the analytical rigor required for meaningful review and synthesis of the literature.

Stakeholder Consultations

The AIR research team, in collaboration with local consultants—Professor Aliou Seck and the late Professor Moussa Daff—drew on their expertise in Senegal’s bilingual education to identify stakeholders through individual interviews and consultations. The list included MEN officials and advisors, linguists, academics, and implementing organizations, ensuring comprehensive coverage of expertise and all content tiers within the BUILD framework. Using the BUILD consultation guide (Annex A), our Senegal-based project associate and Professor Seck conducted virtual and in-person interviews with key stakeholders to gather insights on Lol issues in Senegal. These consultations also drew on prior work in the country, including the ongoing IDRC GPE KIX implementation and the Ndaw Wune impact evaluation.

- **Cheikh Beye**, MEN, inspector of elementary education and focal point for multilingual education programming
- **Mbacké Diagne**, MEN, technical advisor, general advisor for education and training
- **Papa Ndiaga Diome**, MEN, inspector of elementary education, manager of the protection and support office in the *Schooling Division for Elementary Education*
- **Elhadj Omar Diop**, MEN, inspector of elementary education
- **Hubert V. Ndecky**, MEN, inspector of elementary education, manager of the *Continuing Education and Training Division*
- **Ablaye Niang**, MEN, inspector of elementary education, principal advisor for the promotion of bilingual programming, manager of the *Quality Division*
- **Adjaratou Sall**, *Université Cheikh Anta Diop, Institut Fondamental d’Afrique Noire*, linguist
- **Dr Serigne Ndiaye**, MEN, inspector of elementary education, manager of the *Schooling Division* – key point of contact for IDRC, GPE KIX implementation

- **Amy Sene**, inspector of elementary education, educational specialist – literacy consultant for IDRC, GPE KIX implementation
- **Birama Toure**, *Institut National d'Etude et d'Action pour le Développement de l'Education* (National Institute for Research and Action for Education Development, or INEADE), researcher, Study and Curriculum Division – M&E consultant for IDRC, GPE KIX implementation.

Secondary Quantitative Data

We also identified and analyzed data from multiple quantitative data sets to answer the questions guiding each tier in the BUILD framework, including questions about student foundational literacy scores across languages, oral language competencies, and cross-linguistic relationships in decoding scores, such as the possible transfer threshold between students' L1 and L2 decoding scores, aligned with the SoBR and theoretical framework.

We gathered and analyzed the most recent nationally representative foundational learning data, which included *Programme d'Analyse des Systèmes Éducatifs de la CONFEMEN* (PASEC) assessments, Service Delivery Indicators (SDI) surveys, Jàngandoo assessments, and the Situation Economique et Sociale Nationale annual education report data. Other sources included regionally focused foundational learning data drawn from development program evaluations, academic reports, and Early Grade Reading Assessments (EGRA) from United States Agency for International Development (USAID)-funded *Lecture Pour Tous* (Reading for All, or LPT), Hewlett Foundation-supported “Evaluation des Compétences Fondamentales en Lecture au Sénégal,” and EdData funded by the World Bank.

We conducted new analyses of the GPE KIX dataset (a multi-country study) compiled by AIR, which provides detailed insights into student learning outcomes, teacher language abilities, and classroom practices. We selected two regions (Dakar and Fatick) to ensure complementarity but not overlap with a USAID-funded study on *Loi Transition in Education Systems* (LITES, described below). Further, these two regions capture the linguistic diversity and bilingual education programs (i.e., ARED and USAID's *Renforcement de la Lecture Initiale pour Tous* [Reinforcement of Reading for All, or RELIT]) that were already in existence in these regions, thus supporting the use of the research results for policy making. We sampled approximately 70 total schools, evenly split among the regions and across urban and rural districts. From each school, we sampled students from Grades 2 and 4, recognizing that the medium of instruction is meant to progressively change to French starting in this range in Senegal and the other KIX focal countries and that Grade 2 literacy is an internationally recognized grade for measuring foundational literacy metrics. This approach enabled us to detect thresholds, as these are the earliest grades in which we are likely to see relatively normal distributions in reading scores in

both L1 and L2. We randomly selected approximately 12 students per grade level from each school for a total sample of approximately 1,680 students per country or 5,040 total students. In sample schools with fewer than 12 students in Grade 2 or Grade 4 classes, we sampled all students in the class.

In addition, we leveraged data from the USAID-Notre Dame LITES study, in which AIR played a co-principal investigator role, to analyze student literacy subskills and student and teacher attitudes about their first (L1) and second (L2) languages in the classroom. The LITES study sampled 1,192 students and 146 teachers in third- and fourth-grade classes (cours élémentaire [CE]1 and CE2) in 2023 across 60 schools in the Kaolack and Matam regions, conducting Early Grade Reading Assessment (EGRA) student surveys, teacher surveys/assessments, and classroom observations. These assessments were conducted in Wolof or Pulaar as L1 and French as L2. We analyzed the data through basic descriptive summary statistics. Though these data are not nationally representative, they provide more insight into how school conditions relate to student literacy outcomes in their L1 and L2. We present the data/reports reviewed for the quantitative analysis in Table 2.

Table 2. Data and/or project reports reviewed for quantitative analysis

Data Set/Study	Years	Grades/Levels	Languages Assessed	Notes/Details
PASEC	2019 (most recent round)	Grade 2 (individually), Grade 6 (group)	French (LoI); limited contextual data on national languages	Nationally representative assessment using competency scales in reading and math
SDI	2018 (Senegal round)	Primary teachers and students	French (mainly)	Assessment of teacher knowledge, service delivery, and pedagogical skills
Jàngandoo	Annual (2010s onward)	Household-based, school-age children	French, Wolof, Pulaar, Serer (core), and sometimes others	Citizen-led assessment focused on reading and math
Situation Économique et Sociale Nationale annual report	Annual (latest year used)	All levels aggregated	French	Administrative data from official national statistics
USAID LPT—EGRA	Baseline 2017; follow-ups 2019, 2021	Grades 2 and 4 primarily	French and national languages (Wolof, Pulaar, Serer, etc.)	Regionally focused assessment of early-grade reading in national languages
Hewlett Foundation—“Évaluation des Compétences Fondamentales en Lecture au Sénégal” (EGRA)	2010	Primary grades (1–3, 4)	French and Wolof	Literacy-focused study including teacher interviews
World Bank EdData EGRA	2009–2011 (Senegal pilot)	Grades 1–3 (French; Wolof pilot items)	French and Wolof	Early EGRA implementation in Senegal

GPE KIX data set (AIR)	2022–2023 (compiled data set)	Grades 2 and 4	Student L1 (varies by region: Wolof, Pulaar, Serer, etc.) and French (L2)	Data on student/teacher language abilities, classroom practices; ~70 schools sampled (Dakar and Fatick); ~1,680 students sampled in Senegal
USAID—Notre Dame LITES study	2023	CE1 and CE2 (Grades 3 and 4)	Wolof or Pulaar (L1); French (L2)	EGRA data, teacher surveys, classroom observations; 60 schools sampled (Kaolack and Matam); 1,192 students and 146 teachers sampled

Utilizing this comprehensive set of data and variety of mixed method analytical approaches, in the following sections, we describe the results to each of the guiding questions for each tier of the BUILD framework.

FLN Goals and Language Policy

This section outlines Senegal’s foundational learning goals, current Lol policy, and the broader policy environment—the top tier of the BUILD framework. It also highlights key historical and sociopolitical factors shaping these goals and policies, which are critical for developing durable Lol strategies amid future political changes.

Country FLN Goals

We address each question in the FLN goals and policy tier of the BUILD framework in turn, beginning with the first question:

What are the country’s language-specific FLN goals?



Senegal’s national education strategy places foundational learning, particularly reading and numeracy in early grades, at the core of system reform. Over the past decade, sector strategies

have consistently defined these competencies as key indicators of education quality and equity, anchored by measurable national benchmarks and increasingly operationalized through LoI reform. As reinforced in the *Programme d'Amélioration de la Qualité, de l'Équité et de la Transparence de l'Éducation et de la Formation* (Program for Improving Quality, Equity and Transparency in Education and Training, or PAQUET-EF),³⁸ as well as the *Lettre de Politique Sectorielle de Développement* (Sectoral

Development Policy Letter, or LPSD),³⁹ Senegal has pursued the vision that all children should acquire basic literacy by the end of their early primary instruction, and this outcome is best achieved through competency-based pedagogy, reinforcement of L1, structured transition to L2, and structured pedagogy.

Key Takeaway

Senegal has pursued the vision that all children should acquire basic literacy by the end of their early primary instruction, and this outcome is best achieved through competency-based pedagogy, reinforcement of L1, structured transition to L2, and strengthened pedagogy.

In the 2018 *Lettre de Politique Générale pour le Secteur de l'Éducation et de la Formation* (General Policy Letter for Education and Training, or LPGS), the MEN defines the major strategic goals in education. The main goal for primary school academic achievement is to, **“by 2030, improve learning outcomes so that at least 80% of students at the end of primary school achieve, on an equal footing between girls and boys, the minimum thresholds for mastering reading and mathematics skills while understanding their usefulness and use in everyday life.”**⁴⁰ Similarly, the PAQUET-EF includes the following outcome for improved education quality: that **“elementary students master the basic skills of reading, writing, and STEM, in French and in the national languages, in accordance with the mastery thresholds set for each level and in coherence with the expectations of preschool and middle school.”**⁴¹

In pursuit of these goals, in 2021, the MEN identified challenges in teaching reading, including the existing curriculum's failure to account for national languages through a bilingual approach (prior to MOHEBS).⁴² The 2021 *Programme National de Lecture Scolaire à l'Élémentaire* (National Elementary School Reading Program, or PNLSE) set forth goals to ameliorate these challenges across five result areas, with language considerations acknowledged throughout:

- Teachers' knowledge and skills in languages and reading instruction are improved.
- Sufficient quality reading materials are made available to teachers and students.
- Periodic and systematic assessments of pupils' reading performance are implemented and lead to effective and well-calibrated remedial activities.
- The commitment of parents, the community, and local authorities is increased in favor of improving the quality of pupils' learning in reading.
- The institutional and normative framework for reading is put in place.⁴³

The MEN has repeatedly identified ambitious national targets for FLN. The PAQUET-EF identified a target of **60% of Grade 5 students passing the *Certificat de Fin d'Études Élémentaires* (End of Elementary Studies Certificate, or CFEE)**, which certifies students' mastery of elementary

French literacy and numeracy.⁴⁴ This threshold was reinforced in subsequent policy instruments and aligned with Sustainable Development Goal 4.1.1 in the *LPSD*, which also called for the establishment of a national system to track learning outcomes, disaggregated by region and LoI (i.e., whether classrooms are taught in French or one of several national languages).⁴⁵ The PAQUET-EF further commits to establishing targets for monitoring inclusivity outcomes, including matriculation parity between boys and girls and success metrics for students with disabilities. Within this framework, the MEN prioritizes a more accountable and equity-sensitive approach by requiring disaggregated data to reveal disparities (such as those affecting girls, children with disabilities, and learners in vulnerable regions) and strengthening mechanisms of traceability, decentralization, and performance monitoring to hold actors across the education chain responsible for results.⁴⁶

Key Takeaway

Senegal's foundational learning goals are clearly defined, rigorously benchmarked, and structurally embedded across policy instruments.

Although these policy documents established these goals based on thorough assessments of the country's educational needs and accompanied the goals with comprehensive (if not ambitious) strategies to achieve these goals, the indicators fall short in defining the thresholds for proficiency. For example, the LPSD goal of achieving 80% mastery in reading and mathematics includes the following indicators: "percent of students achieving minimum proficiency levels in reading and mathematics at the end of each stage (CP, CE2, and CM2)" and "percent of students at the end of Grade 3 who master reading skills."⁴⁷ Yet "minimum proficiency" and "reading skills" are not defined in national policy documents, which makes the progress toward these goals challenging. For example, the General Policy Letter includes a goal of 80% mastery in reading and mathematics at the end of each primary cycle stage (CP, CE2, CM2) with indicators such as the "percentage of students achieving minimum proficiency levels in reading and mathematics" and "percentage of students at the end of Grade 3 who master reading skills." However, nowhere in these documents are the thresholds for "minimum proficiency" or the specific criteria for "reading skills" mastery concretely defined (e.g. what score on which test constitutes "minimum proficiency," or what abilities demonstrate a Grade 3 student has mastered reading). In other words, the plans list these indicators in principle but lack operational definitions or benchmarks for them, making it challenging to measure progress toward the 80% goal in practice. National efforts were underway to better define and measure these skills, however they have since stalled post-USAID. The Ministry's reforms, often with donor support, have introduced standardized assessments and benchmarks. For example, the *Lecture Pour Tous* program (2016–2021) set a goal of having 70% of Grade 2 students "reading

at grade level” in national languages by 2021, implicitly defining a reading proficiency standard for early grades.

Language Policy

Next, we address the question:

What is the Lol policy, if there is one?

Based on international research and existing good practices, the PNLSE mandates that students must learn to read in a language they understand and speak well.⁴⁸ However, Senegal does not currently have a national, legally codified policy governing Lol or the transition from national languages to French. The MOHEBS reform has introduced a standardized model for the introduction of national Lols and transition to French, but it is not yet used throughout the country, nor ingrained in the law. One advisor to the MEN noted that a formal language policy document is in development, with input from researchers and education specialists.⁴⁹ Despite some delays due to a lack of funding, the MEN plans to share the draft for input and adoption across “all levels of society” for finalization by the end of 2025.⁵⁰

Key Takeaway

Senegal has made significant strides toward the adoption of national languages in its education system in recent years and boasts a harmonized Lol transition model that encourages the use of national languages of instruction throughout the primary years. However, the sustainability of bilingual education is at risk until it becomes legally codified and integrated into the core education law.

MOHEBS, launched in 2021, is the largest and most structured L1/L2 transition model in the country to date. The model defines a progressive, structured language transition across three stages of primary education. MOHEBS supporting materials include scripted teacher guides and paired student books that outline daily lessons, including subcomponents on foundational literacy skills. In the *cours d’initiation* (Grade 1, or CI) and *cours préparatoire* (Grade 2, or CP), the L1 is the principal medium of instruction, with oral French introduced in February of CI and written French beginning in CP. In *cours élémentaire première année* (Grade 3, or CE1) and CE2 (Grade 4), instruction is balanced between L1 and French, described as a “functional equilibrium.” In *cours moyen première année* (Grade 4, or CM1) and CM2 (Grade 6), French becomes the dominant medium, with the national language retained for support. This progression is to be eventually applied to all major subject domains, including language arts, mathematics, where French is added as a medium of instruction in CP’s second trimester, natural and social science, and Physical, Sports, and Artistic Education, which remain L1-only until CE1. In this way, the MOHEBS model employs a gradual bilingual transition from a familiar language to an unfamiliar one. It employs a “bigrammar” method to align grammatical, phonological, and lexical features between languages, focusing on both contrastive L2

transfer⁵¹ and facilitative metalinguistic transfer.^{52,53} In doing so, MOHEBS seeks to integrate both the language and content dimensions of learning from the outset of schooling.⁵⁴

MEN leadership drew extensively on national and international sources to determine its Lol programming, namely, research showing that children have consistently better learning outcomes when they learn in their L1 (or another language they mastered at an early age). MEN also built upon the outcomes of bilingual education experiments that have occurred in the country (further described in the following section).^{55,56} As an official from the MEN, noted in an interview, “The shift to bilingual schooling in Senegal is a decision based on tangible evidence, drawn from more than 40 years of experimentation and technical and political validation.”⁵⁷

Despite the use of evidence to inform the decision to pursue bilingual education in Senegal, several education stakeholders have noted that there is little rigorous evaluation (c.f. AIR’s recent evaluation of ARED’s remediation program) to inform the selection of the bilingual model that would be used to scale up throughout the country.⁵⁸ With the selected MOHEBS model, French becomes the dominant medium of instruction beginning in Grade 5, although a large body of evidence supports the use of the L1 as the primary Lol for at least six years of primary school.^{59,60,61} A strength of the MOHEBS model is its retention of the L1 for additional support throughout the primary grades, which aligns with research showing that children have better academic outcomes when the L1 is developed and reinforced through age 12; however recent data shows students are transitioning too early to the L2.^{62,63,64}

Thus far, the country has introduced six national languages—Wolof, Pulaar, Seereer, Soninke, Mandinka, and Joola—into the national education system through the MOHEBS reform. The MEN selected these languages based on codification status, the availability of linguistic and didactic resources, and their geographic and demographic reach.^{65,66} In postreform MOHEBS practices, MEN officials determined the appropriate Lol for a given community through community validation, including local expert consultations and classroom/playground observations.⁶⁷ As one stakeholder stated, the choice of these languages ensures a realistic and equitable implementation of bilingual education that considers both local linguistic realities and the operational capacities of the MEN.⁶⁸ Others, however, note that because only six of more than 20 codified languages in the country are currently represented in the MOHEBS reform, the choice of languages poses challenges to equity and the acceptance of educational reform by linguistic minorities.^{69,70} Two languages will be added at the back-to-school 2025, following advocacy by those language communities.

Ultimately, Senegal has made significant strides toward the adoption of national languages in its education system in recent years and boasts a harmonized Lol transition model that encourages the use of national languages of instruction throughout the primary years.

However, because this model is only operational in selected MOHEBS contexts, French remains the primary LoI throughout much of the country. While the model outlines a sequence for LoI on paper, experts caution that the long-term sustainability of bilingual education remains uncertain unless it is formally codified and embedded within the core education policies.⁷¹

Policy Context

Bilingual education in Senegal has evolved through a patchwork of pilot programs, donor-supported reforms, and regional adaptations, each shaped by broader historical legacies and political constraints, as summarized in Exhibit 2. National strategies and the MOHEBS have embraced instruction in national languages as a means of improving foundational learning. Here, we trace Senegal's history related to bilingual education and outline its present political reality in fulfillment of the final question in the FLN Goals and Policy tier:

What are the pertinent political realities that might affect the LoI policy's implementation and future sustainability?

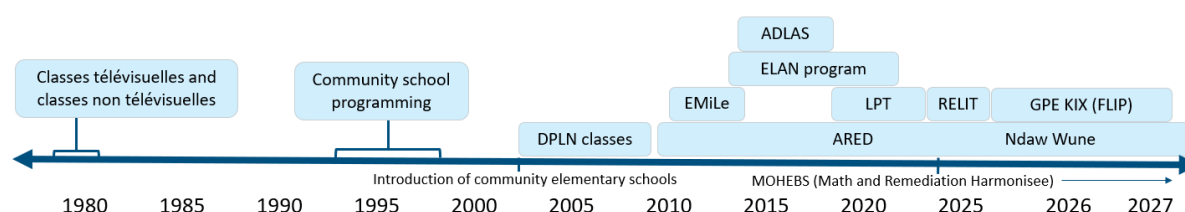
As highlighted in several policy analyses, Senegal's education system has long been influenced by a postcolonial logic that frames French as emblematic of statehood, socioeconomic modernity, and global relevance.^{72, 73} This positioning has led to the marginalization of national languages in education, not only through omission, but through resistance to their full integration into exams, curricula, and the civil service. Nonetheless, civil society organizations, researchers, and education planners have increasingly framed bilingual education as a right (with a focus on inclusion of national languages in the system), not simply a tool to improve education outcomes.^{74, 75, 76} Key contributing scholarship has also sought to reframe LoI policy through an equity and justice lens, aligning Senegal's priorities with broader international commitments on inclusive education.⁷⁷

There is a long history of bilingual education pilot programs in Senegal over the past few decades. As shown in Figure 4, the first project to introduce national languages into the Senegalese education system occurred from 1978 to 1981 with televised and radio classes (referred to as "*classes télévisuelles*" and "*classes non télévisuelles*") in Wolof, Pulaar, Joola, and Seereer, developed by national organizations for educational television and applied linguistics.⁷⁸ Then, from 1993 to 1997, international aid organizations offered community school programming in national languages for out-of-school children ages nine to 15.⁷⁹ In the early 2000s, the governmental *Direction de la Promotion des Langues Nationales* (Directorate for the Promotion of National Languages), with support from the World Bank, United Nations Educational, Scientific, and Cultural Organization (UNESCO), and *Organisation Internationale de la Francophonie* (International Organization for the Francophone World, or OIF), experimented with classes in six national languages and produced corresponding terminology documents and

reading materials.⁸⁰ At the same time, the *Education et Santé* (Education and Health) Foundation created community elementary schools in four rural regions to teach national languages.

Several organizations have been key in supporting bilingual and multilingual education programming. Notably, ARED, a nongovernmental organization based in Dakar, has been supporting education programming in national languages for adults since 1990.⁸¹ Since 2009, ARED has been implementing bilingual education programs that focus on teaching children in Senegalese national languages, with a lighter focus on transfer of reading skills developed initially in the L1, and then transferred to French.⁸² Other initiatives include the *École et Langues Nationales en Afrique* (School and National Languages in Africa, or ELAN-Afrique (funded by AFD)), the *Projet d'Education Multilingue* (Multilingual Education Project, or EMiLe (funded by SIL)), and the *Association pour le Développement de la Langue Saafi* (Association for the Development of the Saafi Language, or ADLAS (funded by SIL and the Hewlett Foundation)). ELAN, which works across multiple countries in Francophone Africa, has also supported significant bilingual programming in Senegal. In two phases, one from 2012 to 2016 and another from 2018 to 2020, ELAN focused on the transfer of skills in national languages to French.⁸³ Beginning in 2009, the EMiLe project developed and implemented bilingual programming in Seereer and French, using a gradual transfer model throughout primary education, whereas ADLAS, from 2011–2016, used an additive bilingual model to support learning in the Saafi language.⁸⁴

Figure 4. Timeline of bilingual education programming in Senegal



USAID-funded reading programs ran in Senegal from 2017-2025. Initially, the focus was on accelerating reading acquisition in Senegalese languages, in the initial grades of primary school. A later project aimed to introduce structured bilingual reading instruction. These efforts aimed to address key gaps in education from ongoing research, including the 2010 EGRA, which revealed that just 13% of Grade 2 (CE1) learners met international reading benchmarks in the French language, and more than a quarter of students could not decode even a single one- or two-syllable French word.⁸⁵ From 2016 to 2021, USAID funded Chemonics International in

implementing a large-scale bilingual education program with the MEN called LPT, which aimed to significantly improve reading among Grade 2 students three national languages: Wolof, Serer, and Pulaar.⁸⁶ The program worked with the MEN to develop reading standards for these three target languages in grades 1-3 and share progress toward these standards in community meetings.⁸⁷ Throughout the life of the project, LPT introduced early-grade reading instruction in Wolof, Pulaar, and Seereer across more than 3,600 schools.

To integrate the multiple approaches used for bilingual education in the country, the government of Senegal formally adopted MOHEBS in 2021 as the national vehicle for foundational learning reform.⁸⁸ MOHEBS is designed to ensure a “harmonious coexistence between national languages and French” in the early primary grades and aims explicitly to raise student learning outcomes.⁸⁹ The model is structured around eight objectives, including the production of bilingual curricular materials, the development of a bilingual student competency framework, and the provision of comprehensive teacher training in both the structure of national languages and the pedagogical management of functional bilingualism. MOHEBS also mandates a dedicated monitoring and evaluation system to track learning progress.

Following LPT, USAID launched the RELIT program to support the MEN in expanding early-grade Senegalese language and French education, across the language arts curriculum (LPT had focused only on reading). RELIT was designed as both a scale-up of Senegalese language and French instruction and a bridge toward the full implementation of MOHEBS. It operated through a dual model: government-to-government (G2G) agreements in seven regions and Ministry-led delivery in two additional regions.^{90,91} RELIT focused on Senegalese language and French reading in kindergarten, CI, and CP, supported by structured teacher guides and student books, teacher training and coaching, and community outreach. The implementation centered on training inspectors and school heads in classroom-based support mechanisms and deploying pedagogical tools for teachers. The World Bank supports MOHEBS implementation in the three regions of Thies, Sedhiou, and Ziguinchor, using the materials developed by USAID. Following the shutdown of USAID in 2025, the Ministry of National Education (MEN) has continued to advance its vision for nationwide bilingual education with support from the World Bank and the Gates Foundation. The MEN aims to expand the program to additional regions and subject areas, beginning with the rollout of the new mathematics curriculum, followed by science and social studies, starting in the 2025 back-to-school period.

AIR also works in Senegal to support language-responsive education programming through our previous and current GPE KIX programs as well as our evaluation of the Ndaw Wune remediation project. Through the GPE KIX-funded language mapping and language transitioning research, AIR and Dalberg showed that many children were learning to read in French despite the fact that children were not ready to transfer their first language reading skills to French

even in grade 4. Building on these insights, AIR is now implementing a language-responsive structured pedagogy framework, FLIP (Foundational Learning Improvement Package) alongside MOHEBS, in IEFs Fatick, Gossas, Foundiougne, and Diofior in the Fatick region. This includes training 75 in-service teachers and 300 preservice teachers on the science of bilingual / multilingual reading and developing support for MOHEBS to improve language-sensitive structured pedagogies as well as supplementary materials to support students' literacy development. The program includes teacher training, coaching school visits, and follow up and support via WhatsApp.

AIR also conducted an independent evaluation of the Ndaw Wune remedial education program, which provides afterschool instruction in Senegalese languages to over 4,000 struggling readers in Grades 2 and 3. The evaluation showed significant impacts on foundational literacy sub-skills of letter knowledge and decoding, and on reading comprehension in Senegalese national languages. Phonological awareness, oral language skills and most numeracy skills did not show significant impact.⁹²

Despite its strong adoption of national languages in the initial FLN acquisition and an evidence-driven gradual transition model, MOHEBS remains a programmatic remediation model in pockets of the education system, not a systemwide mandate that is formally codified in national legislation. Although its four implementation components (communication, training, materials, and monitoring) are strongly built out, its deployment depends on further financing and institutional commitment. It also needs further evidence for design of precise timing and amount of each skill need to be taught across the curriculum for better biliteracy outcomes and transition to French. An advisor to the MEN's bilingual programming also claimed that the rollout of MOHEBS has been limited by weak coordination among actors and a lack of political engagement at a high level.⁹³ The feasibility of the implementation process is further complicated by the uncertain funding environment because of USAID's closure.

Several key informants from the MEN suggested that the initial plans to extend bilingual instruction to mathematics and science subjects beyond reading and language in several areas have stalled at least to some extent, following the withdrawal of external funding.^{94,95,96} As one MOHEBS official noted in a stakeholder consultation conducted by the research team:

*"Thus far, the bilingual curriculum only focuses on reading and language comprehension. MOHEBS had planned a bilingual math curriculum for development and piloting, beginning with CI/Grade 1. However, with the elimination of USAID funding for RELIT, the status of the extension of the curriculum to math and other subject areas is uncertain."*⁹⁷

Another stakeholder shared: “the Gates Foundation will fund the math program. Textbooks for grade 1 have been distributed and teaching is starting at BTS 2025. Second grade math books are in development for BTS 2026.”

A third stakeholder noted that although strategies to mobilize resources have been put in place, the question of financing remains crucial to ensure the continuity of the reform: “The withdrawal of donors, such as USAID, creates uncertainty about the sustainability of the program. Although strategies have been put in place to mobilize resources, the issue of financing remains crucial to ensure the continuity and effectiveness of the reform.”⁹⁸

Meanwhile, national technical teams, which were trained by LPT and RELIT, are continuing the work, and project resources (e.g., equipment and vehicles) were transferred to the MEN.^{99,100} The Gates Foundation and the World Bank continue to support the MOHEBS, while other national actors have committed to including bilingual programming more extensively in the national budget and continuing to implement the program even with limited resources.^{101,102}

Despite these constraints, the growing recognition of bilingual education in official discourse demonstrates significant progress toward the official adoption of national languages in the education system. However, Senegal currently experiences a transitional policy environment for bilingual education. Although the government’s adoption of the MOHEBS approach as a national model signals progress, the absence of legislative backing and full internal budgetary support limits its full institutionalization. The current approach emphasizes gradual expansion through learning-based adaptation, but long-term success requires sustained political commitment, formal regulatory frameworks, and stronger integration into national education planning systems.

Evidence and Data

To answer the questions in the next tier of the BUILD Framework, we conducted an analysis of as comprehensive a set of secondary data and existing evidence of students’ FLN and language abilities in

Senegal that was available to us at the time of this publication. We also reviewed the linguistic properties of the languages that students are expected to learn to better inform the programmatic design of the curriculum mirroring the science of reading.



Foundational Learning Skills

In this section, we address the first question in the Evidence and Data tier:

What are learners' current FLN levels across different languages, and how are these assessed?

First, we describe some of Senegal's large-scale FLN assessments, then we document student learning outcomes from these assessments over the years, assess student literacy development, and discuss the challenges to student achievement and some of the interventions that are shown to improve FLN outcomes.

FLN Data Sources

We analyzed multiple datasets to address BUILD framework questions on foundational literacy, oral language skills, and cross-linguistic decoding relationships, including potential transfer thresholds between L1 and L2, consistent with the SoBR and BUILD theoretical framework.

We gathered and analyzed the most recent nationally representative foundational learning data, which included *Programme d'Analyse des Systèmes Éducatifs de la CONFEMEN* (PASEC) assessments, Service Delivery Indicators (SDI) surveys, Jàngandoo assessments, and the Situation Economique et Sociale Nationale annual education report data. Other sources included regionally focused foundational learning data drawn from development program evaluations, academic reports, and EGRA from the LPT, Hewlett Foundation-supported "*Evaluation des Compétences Fondamentales en Lecture au Sénégal*," and EdData funded by the World Bank.

We conducted new primary analyses of the existing GPE KIX dataset to answer the BUILD framework questions. Compiled by AIR during a previous grant, the GPE KIX dataset provides a detailed picture of student learning outcomes, student and teacher language abilities, and classroom practices in Senegal. We selected two regions (Dakar and Fatick) to ensure complementarity but not overlap with a USAID-funded study on LoI (LITES, described below). Further, these two regions capture the linguistic diversity and bilingual education programs (i.e., ARED and USAID's Renforcement de la Lecture Initiale pour Tous [Reinforcement of Reading for All, or RELIT]) that were already in existence in these regions, thus supporting the use of the research results for policy making.

The KIX dataset consists of a sample of 70 total schools, evenly split among the regions and across urban and rural districts. From each school, we sampled students from Grades 2 and 4,

recognizing that the medium of instruction is meant to progressively change to French starting in this range in Senegal and the other KIX focal countries and that Grade 2 literacy is an internationally recognized grade for measuring foundational literacy metrics. This approach enabled us to detect thresholds, as these are the earliest grades in which we are likely to see relatively normal distributions in reading scores in both L1 and L2. We randomly selected approximately 12 students per grade level from each school for a total sample of approximately 1,680 students per country or 5,040 total students. In sample schools with fewer than 12 students in Grade 2 or Grade 4 classes, we sampled all students in the class.

Key Takeaway

The government's adoption of MOHEBS as a national model signals significant progress toward the official adoption of national languages in the education system. Yet the absence of legislative backing and full internal budgetary support limits its full institutionalization, thus exhibiting Senegal's transitional policy environment.

In addition, we leveraged data from the USAID-Notre Dame LITES study, in which AIR played a co-principal investigator role, to analyze student literacy subskills and student and teacher attitudes about their first (L1) and second (L2) languages in the classroom. The LITES study sampled 1,192 students and 146 teachers in third- and fourth-grade classes (*cours élémentaire* [CE]1 and CE2) in 2023 across 60 schools in the Kaolack and Matam regions, conducting EGRA student surveys, teacher surveys/assessments, and classroom observations. These assessments were conducted in Wolof or Pulaar as L1 and French as L2. We analyzed data through basic descriptive summary statistics. Though these data are not nationally representative, they provide more insight into how school conditions relate to student literacy outcomes in their L1 and L2. We present the data/reports reviewed for the quantitative analysis in Exhibit 1.

The PASEC assessments provide one of the most comprehensive longitudinal views of foundational learning outcomes in Senegal. PASEC assesses reading (French) and mathematics in Grade 2 (administered individually) and Grade 6 (administered in a group) and groups scores onto competency scales, covering approximately 2,880 Grade 2 and 4,500 Grade 6 students nationally in 2019.¹⁰³ Senegal participated in MILO, where the Australian Council for Educational Research (ACER) and UNESCO Institute for Statistics (UIS) administered AMPL tests aligned with SDG 4.1.1b MPLs to Grade 6 students in June 2021, with results reported as the share meeting or exceeding the global minimum proficiency level. These AMPL results are explicitly benchmarked against PASEC 2019 and are not the same cut points as PASEC's "threshold of competence."¹⁰⁴ The cut-points for the MPLs on the AMPL scale were determined from a standard setting exercise undertaken with the MILO participating countries in 2021. The MPL cut points for PASEC were determined from proficiency levels applied to the empirical achievement scale. The PASEC assessments and associated proficiency levels considered the content that students would be expected to be familiar with at the end of Grade 6 and were used to describe the range of abilities found in the populations that PASEC targeted.

At a national level, the national SNERS system regularly assesses CP/CE2/CM2 in French and mathematics and is used for policy planning. Analyses note both its rich disaggregation and some methodological critiques.^{105,106} USAID's LPT ran EGRAs at Grades 1–2 in Wolof, Pulaar, and Seereer (with some French subtasks), which we report in this document. The midline report details sampling, subtasks, and targets.¹⁰⁷ Finally, Jàngandoo's household-based, multilanguage assessments cover ages 6–14 (reading, arithmetic, general culture), capturing out-of-school children and offering a complementary lens on foundational skills.^{108,109}

These various types of assessments illuminate different dimensions of student learning and the foundational learning environment. For example, national assessments (SNERS) provide internal monitoring across CP/CE2/CM2 in French and mathematics and are used for planning, with growing attention to disaggregation and quality, but public, up-to-date numeric summaries are less readily accessible than PASEC/MILO/LPT reports. Sector diagnostics describe SNERS' regular administration and use (including sex disaggregation and regional reporting) and note both its importance for steering quality and occasional technical limitations raised by partners.¹¹⁰ Independent syntheses focused on Senegal also report improvements in foundational outcomes between 2014 and 2019, triangulating trends seen in PASEC and national monitoring.¹¹¹ On the other hand, household surveys such as Jàngandoo complement school-based testing by illuminating learning across languages for all children—including those out of school—offering a broader picture of foundational learning in practice.^{112,113}

FLN Assessment Data

Educational assessment data collected over several decades in Senegal reveals a complex picture of foundational learning outcomes, with persistent challenges alongside modest improvements in specific areas. Across data sources, we see a steady, if uneven, improvement in Senegal's foundational learning over the past three decades.

Early longitudinal work that followed the 1996 PASEC Grade 2/CP cohort shows that very weak early literacy and mathematics skills translated into poor progression, with only 20% of pupils who were in the bottom quintile of the 1996 French test managing to complete primary school seven years later, versus 73% of those in the top quintile. Similar gaps appeared in mathematics, and math scores were closely correlated with later attainment, measured seven years later on primary school completion and achievement in higher grades.¹¹⁴

Key Takeaway

Senegal has shown a steady, if uneven, improvement in foundational learning over the past three decades. The number of students achieving proficiency has increased significantly, but a large disparity remains between the highest and lowest achieving students.

By the 2014 cycle, Senegal posted the highest average reading score in French in Francophone Africa, yet fewer than half of Grade 6/CM2 pupils mastered basic competencies in French. Senegal ranked first in late-primary reading and near the top in mathematics, but it was also the system with the largest performance dispersion between its best- and worst-performing students.¹¹⁵ National-level calculations show that only 38.9% of Grade 6/CM2 children reached the “sufficient proficiency” threshold (“pupils can read simple sentences and understand short texts with familiar vocabulary”) in reading French, and just 41.2% did so in mathematics.¹¹⁶

Results from the 2019 PASEC similarly document sizeable gains, especially in reading French, but they point to a persistent tail of low achievement.¹¹⁷ Between 2014 and 2019, the share of Senegalese Grade 6/CM2 pupils achieving minimum proficiency jumped to 74.7% in reading and 65% in mathematics.^{118, 119} Senegal is now one of only four PASEC countries in which a defined majority of pupils clear the mathematics benchmark.¹²⁰

The 2014–2019 comparison shows that Senegal nearly doubled the proportion of proficient French readers and added 24% points in math proficiency, but equity gaps remain. Reading proficiency rose by 36% points and math by 23.8% points, the fastest progress among the 10 countries that participated in both assessments.¹²¹ Yet performance still varies sharply across schools and regions: the 2019 report notes that Senegal combines the best school infrastructure index in the sample with wide between-school score variance, signaling pockets of persistent low performance.¹²²

Regional disparities in learning outcomes within Senegal remain stark, as demonstrated by disaggregated assessment data. The PASEC 2019 assessment revealed that students in the Dakar region consistently outperformed their peers in other regions, with 62.3% reaching the minimum French reading proficiency, compared to just 28.4% in Sédhiou and 32.1% in Diourbel.¹²³ Similar patterns appeared in mathematics performance, with a 33.7%-point gap between the highest- and lowest-performing regions. These regional differences correlate strongly with socioeconomic factors, teacher qualifications, and infrastructure quality, indicating complex, multifaceted causes for learning disparities that require targeted interventions beyond simple national policy prescriptions.¹²⁴

Gender disparities in foundational learning outcomes in Senegal also show important trends over time. PASEC data from 2007 showed boys outperforming girls in mathematics by 8.7% points in Grade 2/CP, but differences in French reading were minimal.¹²⁵ By 2019, this gap had narrowed considerably to 3.2% points in mathematics, and girls had begun to outperform boys in reading by a small margin of 2.8% points.¹²³ This trend toward gender parity, or even a slight female advantage in reading, represents a notable shift in educational patterns in Senegal.

However, significant gender disparities persist in educational access and completion, particularly in rural areas where social and economic factors continue to disadvantage girls.¹²⁶

The Jàngandoo assessment, a nationally representative household-based evaluation of learning outcomes in Senegal, provides additional evidence of foundational learning challenges. This assessment is particularly valuable because it evaluates children regardless of school enrollment status, thus capturing learning outcomes for both in-school and out-of-school children. In its 2016 iteration, Jàngandoo found that only 26% of children aged 9–16 could successfully complete a set of basic reading (across French, Wolof, Pulaar, and Seereer), writing, and mathematics tasks at the expected level for their age.¹²⁷ The 2019 round showed modest improvement, with 31% of children demonstrating minimum proficiency, yet still indicating that more than two thirds of Senegalese children lack basic foundational skills despite significant increases in school enrollment rates.¹²⁸

At the end of primary school (Grade 6), PASEC 2019 shows relatively high shares of Senegalese students above PASEC’s “threshold of competence,” especially in reading in French, with notable gains since 2014. In 2019, 74.7% of Grade 6 students were above the reading threshold (up from 61.1% in 2014), and 65% were above the mathematics threshold (up from 58.8% in 2014). Girls outperformed boys in reading at the end of primary, but math showed no gender gap. These patterns are consistent with PASEC regionwide trends.¹²⁹ At the beginning of primary (Grade 2), 47.7% were above the reading threshold (up from 28.9% in 2014) and 79.1% were above the math threshold (up from 62.3% in 2014), indicating strong early numeracy relative to early reading.¹³⁰ These PASEC thresholds are PASEC-specific constructs based on ordered proficiency scales; they cannot be interpreted as SDG 4.1.1b MPLs.¹³¹

Using the global SDG 4.1.1b benchmark (MILO/AMPL), Senegal’s Grade 6 proficiency rates are lower—13.3% in reading and 34.0% in mathematics in 2021—but broadly steady, relative to pre-pandemic 2019, underscoring that different standards yield different percentages. AMPL was administered in French to nationally representative Grade 6 samples in June 2021 and scaled to a global MPL. The UIS and ACER emphasize that AMPL/MPLs are set through standard-setting aligned to the Global Proficiency Framework, which is distinct from PASEC’s country/regional scales—hence the large numerical differences between “above threshold” (PASEC) and “at MPL” (SDG 4.1.1b).^{132, 133}

Regional and urban–rural disparities are substantial, with the Dakar metro area far ahead on SDG-aligned MPLs and rural interior regions struggling, a pattern echoed in early-grade language assessments. In AMPL 2021, the share of Grade 6 students at or above MPL reached 39.6% in reading and 61.1% in math in Dakar, versus single-digit reading MPLs and very low math MPLs in regions such as Kolda (reading 2.0%/math 10.7%) and Kédougou (reading

5.7%,math 8.4%), and intermediate results in other regions and departments of Dakar (e.g., Pikine/Guédiawaye and Rufisque).¹³⁴ LPT EGRAs also report marked location effects: rural schools in Pulaar and Seereer zones had significantly lower performance (e.g., rural CP learners identifying 8–17 fewer words than urban peers on certain subtasks), reinforcing the urban advantage.¹³⁵ PASEC’s Senegal brief likewise notes “disparities between zones” at both the start and end of primary.¹³⁶

Putting the pieces together, Senegal’s FLN profile shows (a) strong improvement from 2014–2019 in both early and end-of-primary achievement on PASEC’s scales; (b) low but steady performance at the global MPL benchmark post-COVID-19 in 2021, especially in reading; (c) pronounced regional and urban-rural divides; and (d) meaningful early-grade gains in L1 reading with language-of-instruction alignment. The PASEC rise is visible at both Grade 2 and Grade 6 in language and math, and the AMPL/MPL lens (a more demanding, globally-aligned cut score) shows how far systems must still go to reach SDG 4.1.1b, particularly outside Dakar.^{137,138} Meanwhile, USAID-funded LPT EGRAs confirm L1 reading momentum but also underscore persistent disparities by language group and location and the need to support French literacy development as a second language through upper-primary.¹³⁹

Literacy Skill Development

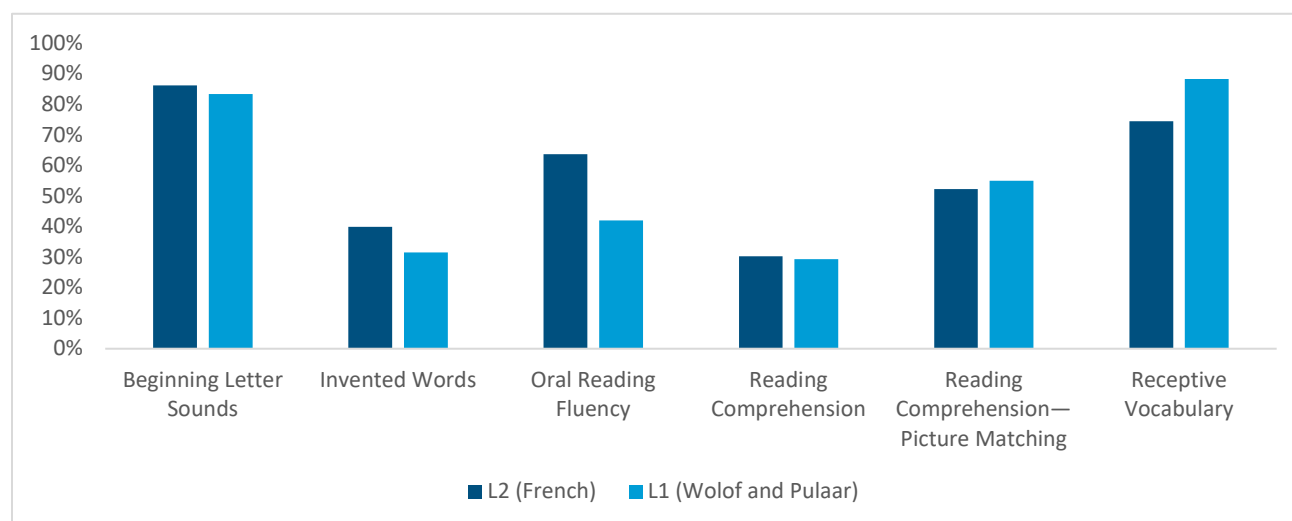
EGRA and LITES data from Senegal, collected mostly in French, Wolof, Pulaar, and Seereer, highlight persistent challenges in foundational literacy. Although students show some decoding ability, their comprehension remains low, with average reading fluency far below benchmarks and comprehension scores averaging at just 30%.¹⁴⁰

EGRA conducted in Senegal provide detailed insights into specific literacy skill development. A 2009 EGRA baseline found that Grade 3/CE1 students read at an average speed of only 12 words per minute in French, far below the 45–60 words per minute benchmark considered necessary for comprehension.¹⁴¹ Even more concerning, 80% of assessed Grade 3/CE1 students could not correctly answer a single comprehension question about a simple text they had read. A follow-up assessment in 2015 showed modest improvement, with average oral reading fluency increasing to 17 words per minute, yet still well below functional literacy thresholds.¹⁴² These results highlight the specific challenges students face in developing automaticity and fluency in reading French, an essential foundation for all subsequent learning.

AIR and the University of Notre Dame’s recent LITES project offer a picture of Grade 3/CE1 and Grade 4/CE2 students’ literacy skills in the Kaolack and Matam regions of Senegal, where

students used Wolof and Pulaar as their home languages (i.e., L1).³ We present details from the assessments in Figure 5.

Figure 5. Student literacy task scores



Note. N = 1,192 across Grade 3/CE1 and Grade 4/CE2 students in Kaolack and Matam regions.

Source. Authors' calculations using LITES data.

- *Beginning letter sounds:* There was no meaningful difference between students' ability to identify beginning letter sounds in L1 and French (83% and 86%, respectively).
- *Invented words:* Students' ability to read invented words was better in French than in L1 by a difference of 8%–32% in L1 and 40% in French.
- *Oral reading fluency:* Students performed better in oral reading fluency in French than L1, as students could read 64% when in French but only 42% when in Wolof or Pulaar.
- *Reading comprehension:* Reading comprehension levels were the lowest among all subskills in both L1 and French. When students were tested on comprehension by having to answer questions related to a story they had read, the average score was only 30%.
- *Reading comprehension—picture matching:* When students were tested on comprehension by having to identify images that corresponded to descriptions of images they had read, the average score was 55% in L1 and 52% in French.

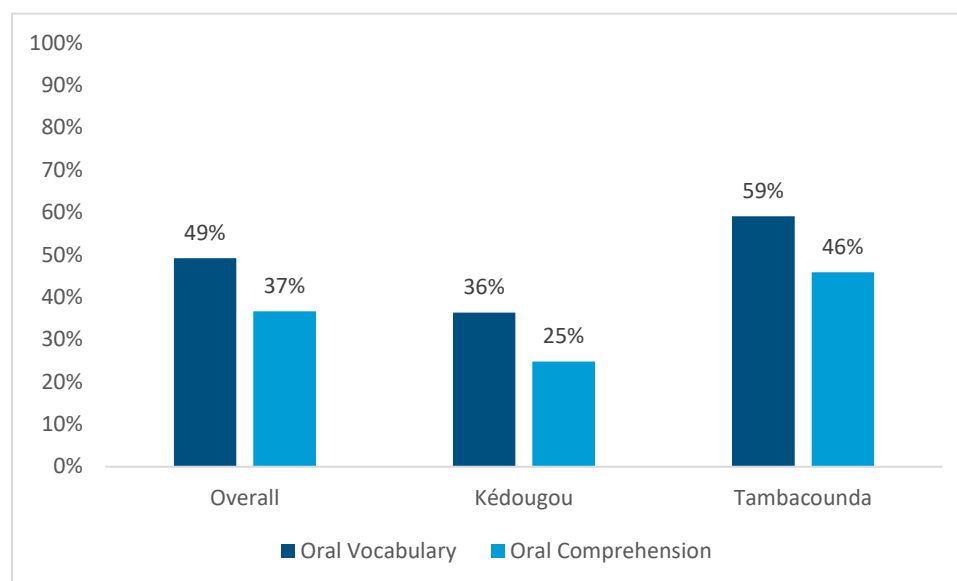
³ Note that according to the MOHEBS curriculum, Senegalese languages are used for instruction in the early grades, and French becomes the primary language of instruction by the time children reach CE1 and CE2.

- *Receptive vocabulary:* Children had better receptive vocabulary in their L1 (88%) when compared to French (74%).

These results were very similar between Wolof- and Pulaar-speaking students. The only notable difference was that reading comprehension in French was much higher for Pulaar-speaking students (42%) than Wolof-speaking students (20%); however, reading comprehension in L1 was higher for Wolof-speaking students (33%) than Pulaar-speaking students (26%).

Additional EGRA data were collected in 2025 as part of the Gates Foundation Science of Teaching project in the Tambacounda and Kédougou regions.¹⁴³ Students from Grade 1/CP were tested on expressive vocabulary and oral comprehension in French. The average scores for both these modules, shown in Figure 6, indicate that French comprehension is quite low among students entering the school system. Further, about a quarter of the students scored zero on the oral comprehension test. Students in Tambacounda are more proficient when compared to students in Kédougou.

Figure 6. Grade 1 student French scores



Note. N = 1,514 Grade 1/CP students in Tambacounda and Kédougou regions.

Source. Authors' calculations using Gates Foundation Science of Teaching data.

Challenges to Achievement

Analyses of our data sets (SDI surveys, PASEC, national education report, and rapid post pandemic assessment) reveal that notable challenges with teacher quality, student absenteeism, low rates of primary completion, and the COVID-19 pandemic have also impacted student achievement.

Teacher quality metrics consistently emerge as powerful predictors of learning outcomes in Senegal. The SDI survey, which provides important insights into the quality of educational inputs and their relationship with learning outcomes in Senegal, found that in 2012, Senegalese teachers were absent from school 18% of the time and,

Key Takeaway

Teacher absenteeism, gaps in teacher knowledge, student dropout, and the COVID-19 pandemic have posed significant challenges to student achievement in Senegal.

when present, spent only 38% of their scheduled instructional time actually teaching.¹⁴⁴ This translates to students receiving only about three hours of actual instruction per day rather than the scheduled five hours. Moreover, the survey revealed significant deficiencies in teacher content knowledge, with only 29% of teachers demonstrating mastery of the primary curriculum they were responsible for teaching. These service delivery challenges directly correlate with learning outcomes, as schools with higher teacher presence and time-on-task showed significantly better student performance in both reading and mathematics. An analysis of PASEC 2014 data revealed that teacher content knowledge explained approximately 22% of the variance in student learning outcomes after controlling for socioeconomic and other factors.¹⁴⁵ More recent SDI data from 2017 found that teachers' pedagogical knowledge and practices, particularly in reading instruction, correlated even more strongly with student achievement than subject content knowledge alone.¹⁴⁶ These findings suggest that investments in teacher quality, including both content knowledge and pedagogical skills, especially in terms of bilingual education pedagogy, represent high-leverage opportunities for improving bilingual foundational learning outcomes.

Among students, school dropout and low rates of primary completion also pose system-level challenges to reaching FLN goals. Data from the *Situation Economique et Sociale Nationale* (National Economic and Social Situation) annual education report reveal that high dropout rates—10.0% in 2017 and 10.6% in 2018—continue to undermine educational continuity, particularly in regions such as Kaffrine, where nearly one in five students leave school before completing primary education.¹⁴⁷ These dropout patterns correspond with low primary completion rates, with just 55.5% of students passing the CFEE in 2018, down from 58.3% in 2016.

In addition, the COVID-19 pandemic significantly disrupted educational progress in Senegal, with particular impacts on foundational learning outcomes. A rapid assessment conducted after schools reopened in November 2020 found evidence of substantial learning losses, with students performing at average levels equivalent to 0.8 grade levels below pre-pandemic expectations.¹⁴⁸ These setbacks were most pronounced among students from disadvantaged backgrounds who had limited access to remote learning opportunities during school closures. Remediation efforts since reopening have shown mixed results, with preliminary data suggesting that learning recovery has been slow and uneven across regions.¹⁴⁹ Nonetheless,

comparing AMPL 2021 to PASEC-linked 2019 baselines shows no statistically significant change due to COVID-19 disruptions.¹⁵⁰

Interventions to Improve FLN Outcomes

Targeted intervention programs, particularly those that integrate bilingual education in national languages and French, demonstrate potential for improving specific aspects of foundational learning in Senegal.

The USAID-funded LPT program, implemented in six regions between 2016–2021, showed significant positive effects on early reading outcomes. Midline evaluations found that students in intervention schools could identify 43% more letter sounds and read 26% more familiar words correctly than students in comparison schools.¹⁵¹ The midline results also showed large increases in mean oral reading fluency scores, as well as in the proportion of students meeting fluency benchmarks. Overall, students in the program showed average gains in reading of 13-18 correct words per minute (cwpm) across languages in Grade 2/CP (after two years of implementation). These gains were associated with reductions in zero scores, which ranged from 25% to 29% points lower.¹⁵² There was an overall 29%-point increase in the proportion of students meeting the program’s oral reading and reading comprehension benchmarks as well. These results suggest that Lol policies substantially impact foundational learning acquisition, with approaches in students’ L1s showing promise for improving early-grade outcomes.

Key Takeaway

Targeted intervention programs, particularly those that integrate bilingual education in students’ home languages and French, have led to improvements in foundational learning in Senegal.

By language, early-grade reading results in Wolof, Pulaar, and Seereer improved substantially between baseline (2017) and midline (2019), but proficiency remains far from universal and varies by language, highlighting the importance of L1 instruction and language match at home and school. On the LPT benchmark (≥ 25 cwpm and $\geq 60\%$ comprehension in the national language at CP), 29.0% of Grade 2 students met the standard in 2019, up from 0.3% at baseline; disaggregated, Wolof reached 35.9%, Pulaar 21.7%, and Seereer 16.6%.¹⁵³ Average oral reading fluency and reading comprehension scores in the national languages rose sharply, and zero scores (being unable to read any words/answer any comprehension items) fell dramatically across languages between 2017 and 2019.¹⁵⁴

Thus far, the bilingual programs have focused more heavily on reading in students’ L1 rather than skills across the language arts curriculum, on French reading or on full bilingualism in the programming, which is reflected in the results. Early improvements in national language reading scores are clearer than the improvements in French performance in the same cohorts. In the 2019 midline, CP students’ L2 French oral reading fluency averaged roughly 11–16 cwpm across language groups (lower than in L1), and L2 French reading comprehension correctness

hovered about ~18%–31%, illustrating lower scores at the time of testing and with less exposure to learning in French.¹⁵⁵ This pattern is consistent with the assessment design (national languages as LoI in early grades with supplemental French tasks) and with broader evidence that L1-first approaches support foundational decoding before transfer to L2 texts.¹⁵⁶

Despite these improvements, MEN stakeholders have noted that LPT was not fully successful in reaching its goal of 70% of students achieving proficiency in national languages, partially due to interruptions in teaching due to the pandemic and a lack of rigorous assessment measures.¹⁵⁷

Overview of Orthographic Properties of Senegalese Languages and Linguistic Abilities of Children

In this section, we provide research insights into various aspects of the linguistic landscape of Senegal that are critical to informing the design of biliteracy curricula. First, we reveal data on student and teacher language proficiency skills in the key languages. Second, we provide a detailed description of the orthographic properties of the target languages to better ascertain the scope and sequence and trajectory of the skills within a biliteracy curriculum. Third, we examine the evidence on the degree and nature of cross-linguistic transfer between national language and French reading skills to inform timing and nature of transition from national language to French reading. Together, we provide a comprehensive view of the evidence needed to design biliteracy curricula, TLMs, and teacher professional development materials. In doing so, we respond to the following questions:

What languages do teachers and learners understand best, and how do these align with the current LoI?

Which factors influence L1–L2 transfer and transition processes?

Demographics and Regional Distribution

Senegal presents a linguistically diverse landscape characterized by numerous Senegalese languages alongside the official language, French, reflecting the country's ethnic diversity and colonial history. Professor Adjaratou Sall, linguist at the Université Cheikh Anta Diop, explained that 25 languages are currently spoken across Senegal (although the debate about the definition of languages and their dialects continues). Of those 25 languages, 22 are codified, meaning that orthographic and grammatical norms have been established, allowing the language to be taught in schools.

French serves as the official language of Senegal, yet it is spoken as a first language by only approximately 0.6% of the population, primarily among the educated elite in urban centers.¹⁵⁸ Recent data confirm that many students enter school with limited French vocabulary and oral comprehension, with stark regional disparities.¹⁵⁹ Despite this low percentage of first language

speakers, French maintains its prominence as the language of government, secondary and higher education, and formal business sectors. The low rate of French spoken as a first language underscores its status primarily as a second/additional language, with varying proficiency levels across the population, depending on educational attainment and urban-rural residence patterns. An estimated 24%–30% of Senegalese can communicate effectively in French, though proficiency is heavily concentrated in urban areas.¹⁶⁰

Wolof stands as the most widely spoken language in Senegal, serving as the first language for approximately 38%–40% of the population and functioning as a lingua franca for up to 90% of Senegalese across ethnic boundaries.¹⁶¹ The prevalence of Wolof extends well beyond its native speaker base, as it also functions as the primary language of interethnic communication in markets, public spaces, and informal settings throughout much of the country. Wolof dominates in western and central regions, particularly in the regions of Dakar, Thiès, Diourbel, Louga, and parts of Saint-Louis and Kaolack.¹⁶² The concentration of Wolof speakers in economically and politically significant urban centers, particularly Dakar, has contributed to its growing influence and the gradual “Wolofization” of urban spaces throughout the country. Census comparisons between 2002 and 2013 show an increase in Wolof speakers in all major urban centers, reflecting both demographic shifts through migration and language shifts among urban populations.¹⁶³ This trend toward “Wolofization” appears particularly pronounced among young urban residents, with sociolinguistic studies indicating that approximately 15%–30% of young people in major cities outside the Wolof heartland are adopting Wolof as their primary language despite different linguistic backgrounds.¹⁶⁴ This shift accelerates in contexts of interethnic marriage and reflects the growing socioeconomic advantages associated with Wolof proficiency in urban settings.

Pulaar (also called Fula or Fulfulde) represents the second-most widely spoken first language in Senegal, with approximately 24% of the population identifying as native speakers.¹⁶⁵ This language predominates in northern and eastern Senegal, particularly in the regions of Matam, Saint-Louis, Tambacounda, and parts of Kolda. Pulaar exists in several dialectal variants across Senegal, with the Fouta Toro dialect prevalent in the Senegal River Valley region and the Fulakunda dialect more common in eastern and southern areas.¹⁶⁶ The geographic distribution of Pulaar corresponds largely with historical settlement patterns of pastoral Fulani people, though significant Pulaar-speaking communities now exist in urban centers throughout the country.

Seereer constitutes the third largest language group, spoken as a first language by approximately 14.7% of the Senegalese population.¹⁶⁷ Seereer speakers predominantly reside in the central-western regions of Fatick, western Kaolack, and parts of Thiès, areas that are traditionally associated with the Seereer ethnic group. Several dialects of Seereer exist,

including Seereer-Sine (the most widely spoken variant) and Seereer-Noon, which vary in their mutual intelligibility.¹⁶⁸ The geographic concentration of Seereer in these central regions reflects historical settlement patterns that have remained relatively stable despite significant rural-to-urban migration in recent decades.

Joola languages (also spelled Diola), encompassing several related varieties, are spoken by approximately 5% of the Senegalese population, primarily in the southwestern Casamance region, particularly in Ziguinchor and parts of Sédhiou.¹⁶⁹ The Joola language group includes several distinct varieties with varying degrees of mutual intelligibility, including Fogny (the most widely spoken), Kasa, and Karon, reflecting the complex ethnolinguistic landscape of the Casamance region. This linguistic diversity within the broader Joola classification presents particular challenges for educational planning and standardization efforts in the region.¹⁷⁰

Mandinka (also called Mandingo) serves as the first language for approximately 4% of Senegalese, concentrated primarily in southern and eastern regions, particularly Kédougou, eastern Tambacounda, and parts of Kolda and Sédhiou.¹⁷¹ As part of the broader Manding language continuum, Mandinka in Senegal shares linguistic features with variants spoken in neighboring Gambia, Guinea-Bissau, Mali, and Guinea. The distribution of Mandinka corresponds to historical patterns of the Mandinka empire and subsequent migrations, with contemporary communities maintaining strong cultural and linguistic connections across national boundaries.

Sooninke speakers constitute approximately 2.3% of the population, residing predominantly in northeastern Senegal, particularly eastern Tambacounda and parts of Matam along the border with Mali.¹⁷² Historically associated with trade networks across the Sahel, Sooninke communities maintain strong transnational connections, with significant diaspora populations throughout West Africa and beyond. The geographic distribution of Sooninke in Senegal represents the western extent of a broader Soninke-speaking area that extends into Mali and Mauritania.¹⁷³

Regional linguistic patterns in Senegal generally follow historical settlement patterns while showing increasing complexity due to internal migration and urbanization. The Dakar region, although historically Wolof-dominant, now presents the country's most linguistically diverse area due to substantial in-migration from all regions of Senegal. Census data indicate that approximately 85% of Dakar residents can communicate in Wolof, though only about 55% identify it as their first language.¹⁷⁴ Northern regions (Saint-Louis, Matam) feature a mixture of Wolof and Pulaar, with Pulaar predominating in rural areas and along the Senegal River. The central-western "peanut basin" regions (Thiès, Diourbel, Fatick, and Kaolack) demonstrate a

complex linguistic landscape with Wolof predominating in urban centers and northern areas, whereas Seereer maintains strength in specific traditional territories.¹⁷⁵

Southern Senegal presents the country's most linguistically diverse region, with Casamance featuring complex patterns of Joola languages, Mandinka, Balanta, Manjaku, and increasingly Wolof, particularly in urban centers such as Ziguinchor.¹⁷⁶ Eastern regions (Tambacounda, Kédougou) feature a mixture of Pulaar, Mandinka, Soninke, and numerous smaller language communities. These complex regional linguistic patterns present significant challenges for educational planning and service delivery, particularly given the limited resources available for developing materials and training teachers in multiple languages.

This detailed linguistic landscape provides critical information for selecting an initial Lol to teach foundational skills. It also underscores the value of objective language mapping studies, especially in dynamic and complex multilingual environments with dialectical differences and highlights the importance of placing teachers in classrooms where their language skills align with those of their students. Together, these elements can work to ensure that the language pillar of the biliteracy house can effectively support the structure needed for foundational learning.

Linguistic Properties

Wolof, Pulaar, Seereer, Mandinka, Soninke, and Joola, each used for bilingual instruction through MOHEBS, represent the most prominent of the 25 recognized national languages in Senegal. For a language to qualify for use as an Lol in the education system, it must meet the following criteria: a) be the subject of prior codification, b) be relatively well researched in terms of linguistic description (e.g., phonetics, phonology, morphology, syntax, terminology, dialectology), c) have good didactic, literary, and scientific output, and d) have reference works available (e.g., dictionaries, specialized lexicons)¹⁷⁷

According to Mbacké Diagne (technical advisor to the MEN), Senegal, like several African countries, adopted the principle of “harmonized African orthography” in which a sound (i.e., phoneme) corresponds to a single grapheme, which allows for easier acquisition in terms of decoding and learning the grapheme-phonology mappings.¹⁷⁸ For 14 of the 22 codified¹⁷⁹ national languages of Senegal, the government has issued decrees to standardize the grammar and orthography. As follows, we describe some of the orthographic, morphologic, phonologic, and syntactical features for the six national languages currently used in the education system, some similarities and differences to French, and how that may influence literacy acquisition and educational outcomes for students.

Wolof, the most widely spoken national language in Senegal, has three established orthographic systems: an officially recognized Latin-based alphabet used in the formal school system, an Arabic-based script called Wolofal used in religious education, and a minority writing system called Garay used in some artistic contexts.¹⁸⁰ The Latin-based Wolof orthography, which we will focus on, was standardized in 1971 and updated in 2005. It uses 27 letters—24 letters from the Latin alphabet plus three additional characters: ñ, ŋ, and ë.^{181, 182} This standardized orthography demonstrates high orthographic transparency¹⁸³ with nearly consistent one-to-one phoneme-grapheme correspondences. The relationships between sounds and symbols are remarkably regular, potentially facilitating more rapid decoding acquisition compared to French.

Pulaar (also called Fula or Fulfulde) uses a standardized Latin-based alphabetic writing system consisting of 28 letters.¹⁸⁴ The orthographic system for Pulaar was standardized across West Africa in the 1966 Bamako Conference and further refined through subsequent linguistic meetings.¹⁸⁵ Pulaar orthography exhibits high transparency, with consistent sound–symbol correspondences and relatively straightforward spelling rules. The writing system effectively represents the language’s complex phonological features, including its distinctive consonant gradation system, where consonants systematically alternate between different forms depending on grammatical context. The representation of these phonological aspects in the orthography creates a system that, though initially requiring learners to master a larger inventory of graphemes than French, ultimately provides a more predictable reading and writing experience.¹⁸⁶

Seereer employs a standardized Latin-based alphabetic writing system. The modern Seereer orthography includes 33 letters and 43 graphemes, with numerous digraphs and special characters to represent its phonological system.^{187, 188} The orthography demonstrates reasonable transparency in sound–symbol relationships despite its larger orthographic breadth. A particular orthographic challenge in Seereer involves the representation of its complex vowel system, which includes contrastive vowel length and nasalization. These features are systematically represented in the standardized orthography, but they require learners to distinguish subtle phonological contrasts that may not be salient to speakers of other Senegalese languages.¹⁸⁹

Mandinka (also called Mandingo) uses a standardized Latin-based alphabetic writing system established through regional cooperation efforts. The Mandinka orthography employs 25 letters, including several digraphs representing specific consonant sounds.^{190, 191} As with other Senegalese languages, Mandinka orthography demonstrates relatively high transparency in its sound–symbol correspondences. A distinctive feature of the Mandinka writing system is its representation of tones, which are lexically and grammatically significant in the language. In

standard orthography, tones are typically not marked, creating potential ambiguity for readers, though some educational materials include tone marking to facilitate learning.¹⁹² This omission of tone marking represents a compromise between orthographic simplicity and complete phonological representation.

Joola employs a Latin-based alphabet of 24 letters.¹⁹³ Like many other Senegalese languages, Joola includes prenasalized consonants beginning with the letters m or n, such as “mb,” “ng,” and “nd.”¹⁹⁴ It also distinguishes the length and tension of vowel sounds, expressing length by doubling the vowels (e.g., “ii,” “aa,” and “uu”) and expressing tension with an acute accent (e.g., é).¹⁹⁵ Joola also makes extensive use of prefixes and suffixes, for example, to designate definite and indefinite nouns, possessives, and negations. Subjects and objects are also affixed to a verb. For example, the phrase “I saw” is expressed with a single word, “nijujuk,” and then changed to “he saw” by editing the prefix to produce “najujuk.” With the addition of “oo” as in “nijukoojuk,” the phrase becomes “I saw it.”

Sooninke, also spelled “Soninke,” uses a 26-letter alphabet that does not include the letters “v” and “z,” similar to several other Senegalese languages, and it also includes “ñ” and “ŋ.”¹⁹⁶ Similar to other Senegalese languages, Sooninke uses prenasalised consonant sounds.¹⁹⁷ Like Mandika, Sooninke uses tones, which are not noted in the written form but are distinguishable based on the context.¹⁹⁸ Although derivatives with prefixes and suffixes are commonly used in the language to form words—for example, the word “small,” or “remme” in Sooninke, is used in combination with the noun—negation is created through a separate word after the verb.¹⁹⁹

Comparatively, **French**, as the official language of Senegal and the second/later language of most learners, employs an alphabetic writing system based on the Latin script with 26 letters and various diacritical marks. Although Senegalese national languages share the same punctuation and capitalization rules as French and most of the same letters, French includes some sounds such as “j” or “g” that do not exist in national languages.²⁰⁰ Furthermore, some aspects of French, such as the use of nasal vowels and fricatives, as well as more complex negation rules, do not exist in national languages.²⁰¹ The French orthography demonstrates a moderate level of transparency in its grapheme–phoneme correspondence, though it contains numerous inconsistencies that can challenge learners.²⁰² For instance, French contains multiple silent letters, context-dependent pronunciations, and complex spelling rules. This relative opacity presents particular challenges for Senegalese students learning to read in French for initial literacy acquisition, especially if the language is unfamiliar to them. Yet first learning to read in a familiar national language, which could be more transparent, allows for an enhanced transfer of skills in learning to read a new language.²⁰³

Correspondingly, research demonstrates that students initially learning to read in more transparent orthographies typically acquire basic decoding skills more rapidly than those

learning in less transparent systems.²⁰⁴ For example, children who receive early literacy exposure, often through Arabic texts in Quranic schools, or in their mother tongue such as Wolof, tend to develop stronger later literacy skills than children who receive no early literacy exposure at all, who in turn struggle with learning French.²⁰⁵ Similarly, studies with Pulaar speaking children found that those receiving initial literacy instruction in Pulaar before transitioning to French demonstrated stronger overall reading outcomes by Grade 4/CE2 than children instructed only in French.²⁰⁶

Bilingual education programs in Senegal have demonstrated the significance of orthographic transparency for early reading development. A longitudinal study following students in Wolof-French and Pulaar-French bilingual programs found that students are able to learn the more transparent language orthographies during the first two years of instruction.²⁰⁷ These students subsequently transferred literacy skills to French more effectively than monolingual French program students, suggesting that initial literacy facilitates later language learning. The study further noted that after three years of instruction, students in bilingual programs were associated with stronger reading comprehension in both languages compared to monolingual program peers in localized programs.

Key Takeaway

Learning to read in a national language before learning to read to a more complex orthography like French can help facilitate transfer and biliteracy acquisition.

Research in reading acquisition has established that on the level of transparency in the orthography places variable cognitive demands on beginning readers in terms of decoding acquisition pace and trajectories.²⁰⁸ In the Senegalese context, this could mean that students learning to read in national languages would likely do better than learning to read in French – due to either or both transparency and the fact the language is familiar to them.. Although student familiarity with national languages as opposed to French also plays a significant role in facilitating literacy acquisition, a study examining working memory demands during reading tasks found that Senegalese children required significantly greater working memory resources when reading French compared to reading Wolof, even when controlling for language proficiency.²⁰⁹ This differential cognitive demand could have important implications for instructional approaches and learning material design.

Teacher preparation and instructional methods must account for these orthographic differences. Teachers in Senegalese schools need specific training on the orthographic features of both French and national languages to effectively support students' literacy development.²¹⁰ Instructional approaches that explicitly contrast orthographic patterns between languages have shown promise in facilitating cross-linguistic transfer. For example, a pedagogical experiment in Casamance region schools found that explicitly teaching sound–symbol correspondences that

differ between Mandinka and French improved students' accuracy in both languages more than traditional methods that treated the languages in isolation.²¹¹ This finding underscores the importance of orthographically informed teaching strategies. In Senegal, the LPT initiative produced several pedagogical guides and “bigrammar” lesson plans to facilitate comparisons between French and national languages. Although these resources provide a useful means to systematically promote biliteracy among students, their usability and effectiveness among students are not yet clear.

Key Takeaway

To effectively support students' literacy development, teachers in Senegalese schools need specific training on the orthographic features of both French and national languages, as well as on pedagogical approaches that explicitly contrast orthographic patterns between languages.

Standardization and materials development remain ongoing challenges for indigenous language orthographies in Senegal. Although official standardized orthographies exist for major Senegalese languages, their implementation in educational contexts is inconsistent.²¹² Limited availability of reading materials using standardized orthographies restricts students' exposure to consistently spelled out text, potentially slowing automaticity development. When students rarely encounter correctly written texts in their language, they can't easily internalize spelling patterns. So, their reading stays slow and effortful instead of becoming fluent and automatic. Although the MEN issued decrees in 2005 to formalize many linguistic properties across national languages, a survey of educational materials found substantial orthographic inconsistencies across different publishers and regions, particularly for Seereer and Mandinka.²¹³ These inconsistencies potentially confuse learners and complicate the transfer of reading skills between languages. Efforts to standardize materials and provide teacher training on official orthographies represent crucial steps toward improving literacy outcomes.

Language policy decisions regarding orthography significantly impact educational equity in Senegal. The primacy of French in many educational contexts, despite its relatively opaque orthography and its unfamiliarity to many students, could disadvantage students with limited French exposure prior to school entry.²¹⁴ Recent policy initiatives promoting national language-based multilingual education represent important steps toward acknowledging the pedagogical advantages of beginning literacy instruction in orthographically transparent and familiar national languages.

Student Language Mapping

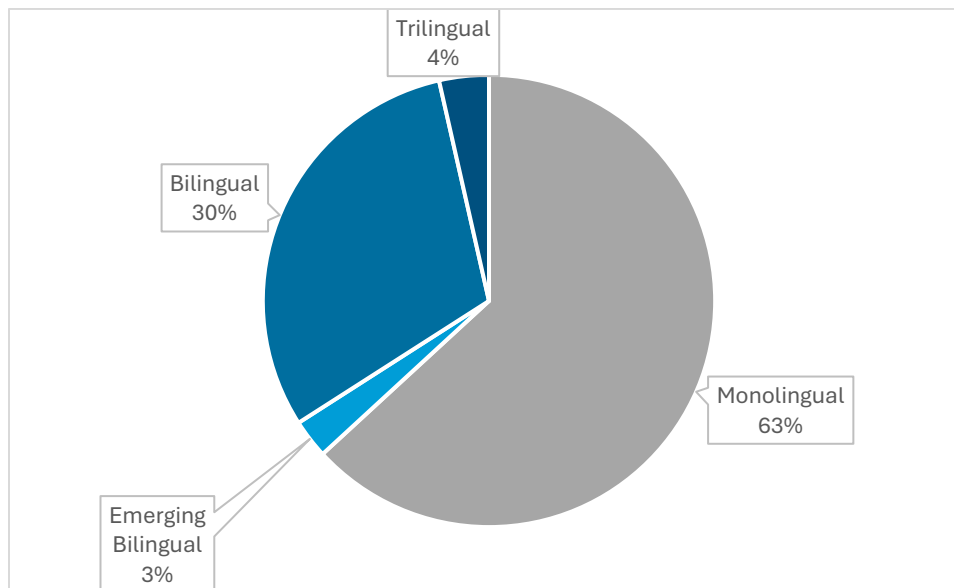
To integrate national languages into the education system, national stakeholders need to first understand which languages students use/understand and in which schools. MEN policy documents have confirmed the necessity of this step, noting that to guide teaching in national languages, “it is important to [...] set up a system for the choice of national languages and to carry out research [...], in particular, the language of the school through a mapping of

languages.”²¹⁵ This process of identifying the languages used and understood in a region, referred to as “language mapping,” has been conducted in several ways in Senegal. Here, we describe language mapping that AIR conducted through the IDRC KIX study, which is one of the largest language mapping exercises in Senegal, as well as the language mapping study conducted by the UND in collaboration with AIR for the LITES study.

According to Mbacké Diagne, Technical Advisor for the MEN, the *Partenariat pour l’Amélioration de la Lecture et des Mathématiques à l’Ecole Élémentaire* project, similarly funded by USAID, also carried out systematic language mapping at the academy (i.e., district) level throughout the country.²¹⁶ This work, carried out in regions where the program has taken place, identified the languages spoken around the schools and those the students best mastered.²¹⁷ These reports are not publicly available, and our team was not successful in obtaining them to assess the methods and extent of the language mapping.

Data from semantic fluency assessments, which measure how many words a participant can produce in a language within a given time to assess expressive oral vocabulary, remain relatively limited in Senegal. According to findings from previous semantic fluency assessments of nearly 1,700 children in Grades 2 and 4 (CP and CE2) in Dakar and Fatick (the majority of whom had not received bilingual education programming) conducted under AIR’s Strengthening Bilingual and Multilingual Learning Systems project,²¹⁸ about two thirds of children are monolingual, and one third are either bilingual or trilingual, as shown in Figure 7. 29% of the sample could speak and understand French as either a first or additional language. Grade-level data indicate that students are in fact acquiring language skills in French, as the likelihood of a child being bilingual increased by 10% between Grades 2 and 4.

Figure 7. Language skills among students sampled in Dakar and Fatick

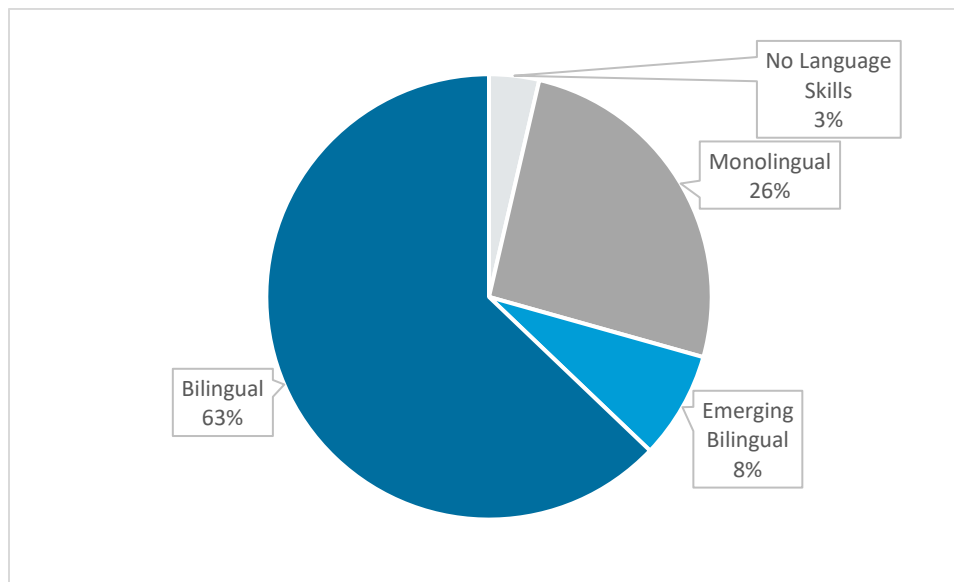


Note. N = 1,691 Grade 2/CP and Grade 4/CE2 students in Dakar and Fatick. *Source.* Authors' calculations using KIX data.

This same study found that students in the Dakar region were significantly more likely to produce words in French (45%) as much as their other language, compared to students in Fatick (only 13%). Within these regions, children's French skills also varied significantly by school; in Dakar, the percentage of students who understood French ranged from 21%–83% in each school, but in Fatick, that percentage ranged from 0%–44% in a given school. This finding indicates the need to tailor foundational learning teaching to the extent possible by regions.

The LITES study conducted a semantic fluency assessment that was narrower in scope by testing students on French and a preselected national language—Wolof in the Kaolack region and Pulaar in the Matam region.²¹⁹ According to this study, a majority of students sampled from the Matam region are bilingual (see Figures 8 and 9). In the Kaolack region, 45% of the students are monolingual. Concerningly, about 10% of the students in the Kaolack region demonstrated very low expressive vocabulary skills in the national language and in French. The number of bilingual children seems much higher than is commonly understood from anecdotal and stakeholder information and warrants further investigation.

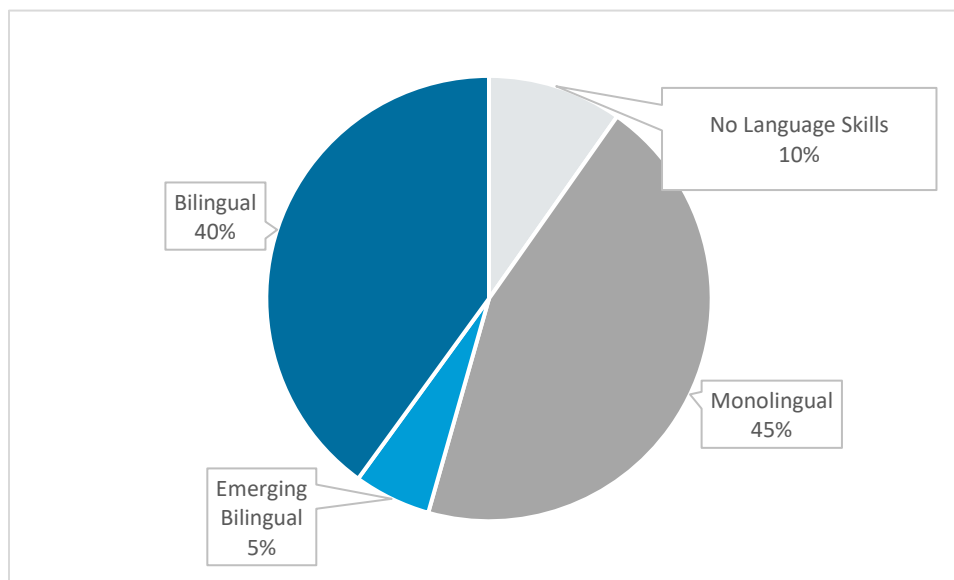
Figure 8. Language skills among students sampled in Matam



Note. N = 579 Grade 3/CE1 and Grade 4/CE2 students in Matam.

Source. Authors' calculations using LITES data.

Figure 9. Language skills among students sampled in Kaolack



Note. N = 675 Grade 3/CE1 and Grade 4/CE2 students in Kaolack.

Source. Authors' calculations using LITES data.

One of the enduring policy challenges that characterizes Senegal's LoI landscape is the misalignment between language mapping data and instructional practice.²²⁰ The CONFEMEN diagnostic reports that many students arrive at school speaking a national language that is not

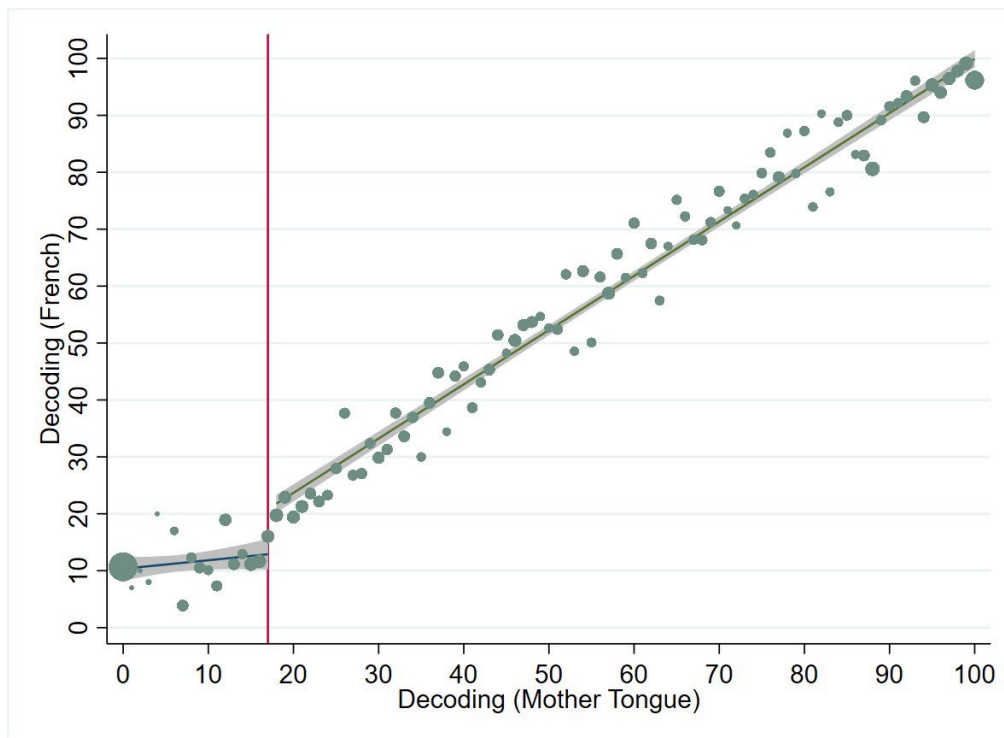
used in instruction. This creates a fundamental mismatch between sociolinguistic reality and classroom practice.²²¹ In addition, the selection of LoI at the school level often reflects top-down planning rather than investment in decisions based on sociolinguistic realities at the local level, confirmed through rigorous language mapping.²²² LoI decisions at the school level are based on dominant local languages identified through sociolinguistic surveys, but the absence of standard procedures may have led to inconsistencies and inadvertent exclusion of some linguistic minorities.²²³ This disconnection points to the need for empirical data on student language skills, more participatory and inclusive mechanisms in language selection, and clearer protocols for multilingual zones.

A recent study by Dubeck & Pouezevara (2025), focusing on Pulaar and Mandinka schools, examined the prevalence of mismatches between students' home languages, teachers' proficiencies, and the dialects used in teaching materials. The researchers used existing surveys, interviews, focus groups, and classroom observations in which data were collected in the de facto LoI of the school. The study found that while many teachers and students had some familiarity with the designated LoI, mismatches were common, particularly in literacy skills and dialectal variations. These mismatches sometimes led to confusion, ridicule, or disengagement in classrooms. Teachers reported coping strategies such as code-switching into Wolof or French, collaborating with colleagues for translation, and adapting lessons to local dialects.

Decoding Transfer Thresholds

Student data from 2024 show that children who were able to decode their L1 with at least 15%–20% proficiency on a specific decoding assessment were able to decode in French at a greater rate (see Figure 10).²²⁴ In other words, once children achieve basic decoding skills in a familiar language, they are able to transfer those skills and learn to decode French exponentially faster. Although the actual threshold point is not transferable to other types of assessments, which may include simpler or more complex decoding tasks, the existence of a threshold point in decoding skills indicates that the acquisition of basic decoding skills in a familiar language leads to improved decoding skills in French.

Figure 10. Relationship between L1 and French decoding skills among Senegalese learners

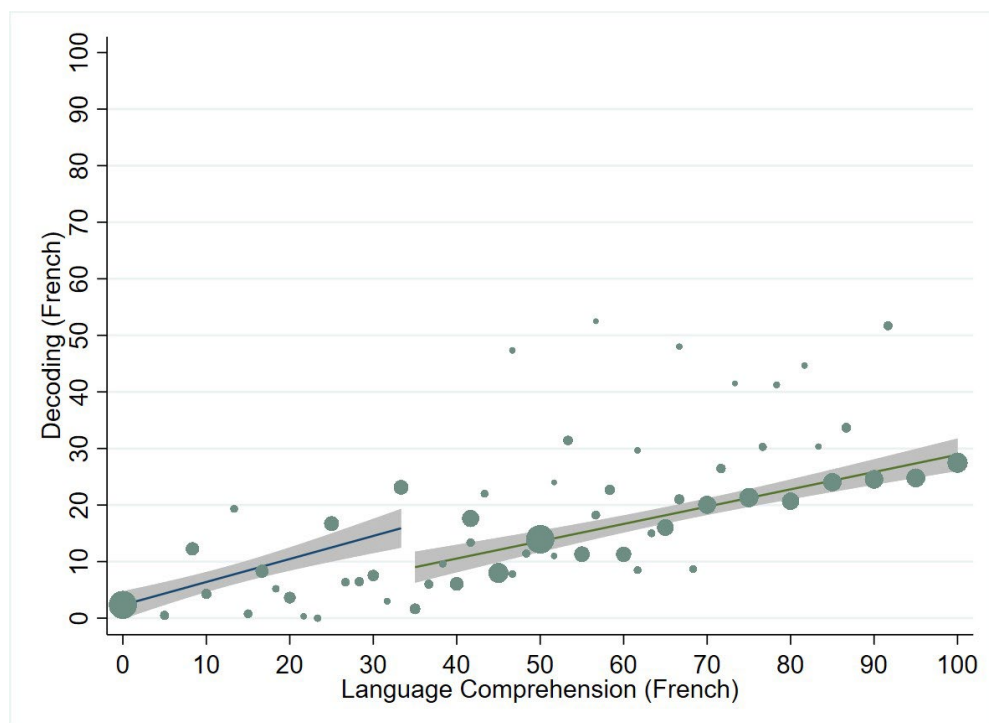


Note. N = 1,691 Grade 2/CP and Grade 4/CE2 students.

Source. Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

Conversely, yet as expected, there is no threshold for French language comprehension, above which there is a steep rise in French decoding skills, as shown in Figure 11. The slopes of the lines do not significantly differ from one another before or after the tested breakpoint, suggesting that there is no point in French comprehension skills after which French decoding skills grow at a faster rate. This finding aligns with our theory that the strength of the relationship between one's level of language comprehension, although correlated with decoding skills, does not change significantly at any minimum proficiency level. Because language comprehension is a continually developing skill—in contrast to decoding, in which one reaches a point where one has learned all the sounds of letters in a language—there is no definitive level of language comprehension above which decoding is greater.

Figure 11. French decoding skills in relation to French language comprehension skills for Senegalese learners



Note. N = 1,691 Grade 2/CP and Grade 4/CE2 students.

Source. Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

Teaching and Learning

In the central tier of the BUILD framework, we focus on teaching and learning practices, especially at the teacher level within the classroom but also on

community engagement in the teaching and learning process. This includes first taking stock of the MOHEBS curricula and materials used in public schools throughout the country to see how French language and literacy instruction are introduced, how national language instruction is integrated, what resources are available, and what assessments are included in the curriculum. We also assess teachers' language skills and the professional development opportunities they receive to support bilingual learning. Last, we examine existing data for engaging family and community members in Lol decisions.



Curriculum and Materials

We first examine how the MOHEBS curriculum is designed across key literacy subskills, assess the MOHEBS TLMs provided to schools, and briefly describe some of the regular assessments administered to students. Critically, we examine the alignment across these materials. In doing so, we respond to the following question:

To what extent are teaching and learning materials designed to support bilingual and multilingual learners?

Curriculum

The MEN introduced the MOHEBS bilingual curriculum concept in 2022 as part of its efforts toward broader curriculum reform. MOHEBS proposes a scripted, additive transition from national languages to French, building on Senegal’s long history of bilingual education programs and incorporating lessons learned from previous initiatives. Its design aims to strengthen literacy, numeracy, and core subject mastery by starting instruction in a Senegalese language familiar to the child before gradually transitioning to French. This approach seeks to ensure comprehension and acquisition of foundational learning skills during early grades while preparing students for French as the primary Lol in later years. While MOHEBS is intended to eventually replace the Curriculum de l’Éducation de Base (CEB), the CEB remains the officially sanctioned curriculum at present, and the MEN has not yet launched the full reform process.

The progressive balance of national language and French used in each grade within the MOHEBS curriculum is summarized below in Table 2. Schools that have not been reached—all except those in the region of Dakar (3 academies) with MOHEBS materials and training continue to use the CEB curriculum, along with grades and subject areas not yet covered by MOHEBS. The updated MOHEBS curriculum and accompanying operational documentation provide teachers with a clear framework for teaching and planning language arts in the early grades, using a structured pedagogical approach that teaches students to read in their L1 first.²²⁵

Table 3. MOHEBS Curriculum²²⁶

Cycle / Grade Level	Lol L1 (national language)	Lol L2 (French)	Notes on transition & remarks
CI–CP (1st cycle, Grades 1–2)	≈ 80 %	≈ 20 %	L1 is the principal medium; French introduced early but remains secondary.
CE1–CE2 (2nd cycle, Grades 3–4)	≈ 50 %	≈ 50 %	Both languages are used as Lol.
CM1–CM2 (3rd cycle, Grades 5–6)	≈ 20 %	≈ 80 %	French becomes the principal medium of instruction; L1 remains as object or supporting medium of instruction.

We conducted an in-depth review of the MOHEBS curriculum and associated supporting documents using the SoBR discussed above as the BUILD framework. This rubric provides a framework to evaluate the curriculum in terms of its support for each reading subskill across L1 and L2 described above. The curriculum review was first conducted as part of our GPE KIX project and expanded upon for our BUILD analysis. The curriculum review focused on early grades – CI and CP, grades 1 and 2 – to assess the progression of literacy skills in L1 and the introduction of French.

The foundational MOHEBS documents include three guides: the pedagogical guide, the teacher’s manual, and the student manual. These documents are aligned to one another and envisioned to be companion documents supporting teachers’ implementation of MOHEBS throughout the academic year. The pedagogical guide is the overarching theoretical document developed to accompany the daily work of teachers before, during and after lessons. The guide is divided into two parts: 1) the overarching pedagogical background of MOHEBS including key skills, definitions, and underlying principles, and 2) high level outlines for the lessons for the year. Hubert Ndecky, head of the MEN’s department for training and communication, notes that the curriculum guide offers teachers the essential pedagogical guidelines for effective implementation of bilingual education, including benchmarks and content to ensure quality learning in the national language designated for a school and French.²²⁷ Key underlying principles of the curriculum, as emphasized in the pedagogical guide, include a competency-based approach, a strong focus on integrating learning into practice to ensure skill mastery, and the use of an “I do, we do, you do” instructional methodology. Many literacy terms and skills are presented in the beginning of the guide but the core skills that serve as the foundation for the curriculum are listed as phonological awareness, alphabetic principle, vocabulary, fluency, and comprehension.²²⁸

The teacher’s manual is a practical, scripted tool that outlines every literacy activity a teacher should implement for all 25 weeks of the academic year. The CI and CP schedule largely focuses on reading skills – with full days on Tuesday and Thursday and shortened days on Monday, Wednesday, and Friday. CI includes a greater focus on L1 with CP introducing more sections on L2. Within the guide, each week includes three lessons, with periodic “Integration” weeks to reinforce knowledge. For each lesson, there are stated phonics, communications situations, dialogues, introduced structures, vocabulary, and dialogues with key conjugations. These focus areas

Figure 12. Guide lesson concepts

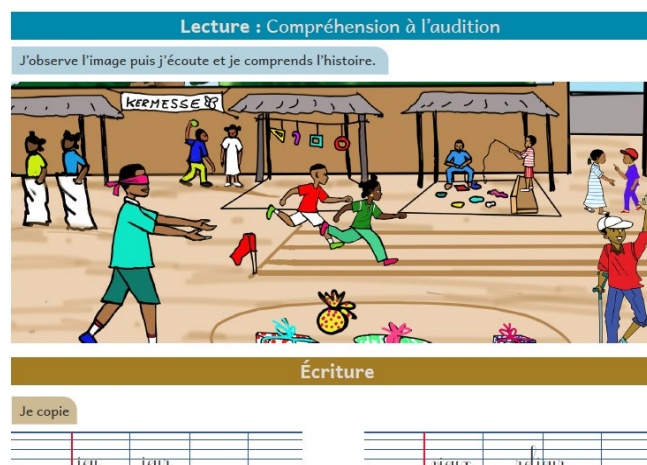
Këmbe yi /Contenus L1	
Ngatandug ràññee ndégtu Phonétique préventive	kaña, kañ, ñew [ñ]
Cëslaayu waxtaan Situation de communication	Dibeer jii weesu la Yaay Astu Jóob am doom. Nu war a tudd liir bi bu bés bi dellusee. Tey ci àjjuma ji, ca èttu ekool ba, Badu di ci woo xaritam Faana Siise, dafa bëgg mu teewe ngénte li.
Waxtaan Dialogue	Badu : Faana, ñaan naa la nga teewe sunu ngénte li. Faana : Kañ la ngénte li ? Badu : Ngénte li, dibéeer jii la. Faana : Dinaa ca teew. Jërëjëf, sama xarit.
Tëggin Structure	Ñaan nit + waxe (teewe, ñew) + mottal.
Baataan Vocabulaire	ñaan naa (namu) la (leen)..., teewe, ngénte
Demalinu waxe Conjugaison dialoguée	teewe ci fésalu waxe (3 kuutlaayi bennal)

are first introduced for L1 and subsequently the same focus areas are presented later in the lesson in L2, see Figure 12. For each lesson, each day is outlined and broken down into sessions that include *lecture* [reading], *langage* [language], *écriture* [writing], *production d'écrit* [written production], and *poésie and recitation* [poetry and recitation]. These are each included in L1 along with language comprehension skills in L2 for CI and CP. Word recognition skills are only included for L1 in CI and introduced in L2 in CP. In alignment with this, the curriculum also includes L1/L2 sessions in each of these categories which highlight similarities and differences across the two languages. Language [*langage*] sessions at the beginning of a lesson introduce the new concepts and grammatical structure that are the focus of the overall lesson. Reading [*lecture*] sessions include activities ranging from symbol knowledge, decoding language comprehension, phonological awareness, fluency, to reading comprehension. Light touch weekly formative evaluation and remediation are intermixed with lessons. Lastly, the student manual is a short companion to the teacher's manual. This includes visuals for the student to supplement activities outlined in the teacher's guide. For example, there are visual examples for students to match images to written sentences; images they are supposed to orally describe; space to practice writing letters; and written letters, syllables and words to decode. There are separate student manuals for French and for L1 which are each explicitly referenced in the teacher's manual. See an example from the student manual in Figure 13.

The MOHEBS curriculum reflects core principles of the SoBR, as articulated in the biliteracy house model, and introduces literacy skills progressively in both L1 and French. Instruction in each language begins with foundational skills and advances systematically to more complex skills. Letters and sounds are introduced in a deliberate sequence, starting with the most frequent and easily articulated sounds—for example, in CI, weeks 9 and 10 focus

on reviewing the short vowel a, the long vowel aa in Wolof, and the consonants s, f, and r. This progression extends from symbol knowledge to letter blending and decoding, followed by increasingly complex word structures and, eventually, sentence- and paragraph-level reading. Consistent with the SoBR, the curriculum prioritizes language comprehension and word recognition in L1 while introducing L2 through oral language comprehension before formal word recognition. In CI, instruction focuses on L1 skills with gradual exposure to L2 oral comprehension; L2 word recognition is introduced in CP alongside continued L1 instruction.

Figure 13. Guide lesson concepts



Instructional methods for word recognition in L2 build on strategies first established in L1, such as blending letter sounds, and the curriculum includes translanguaging guidance to highlight similarities and differences in decoding across languages.

Overall, the MOHEBS curriculum incorporates many of the key principles of the SoBR, however there are some differences that remain. There is no overall explanation provided in key MOHEBS documents that clearly explains the progression of the five skills for teachers and their interrelationship nor the progression of these skills in terms of transfer from L1 to L2. While there are translanguaging strategies included in the teacher's guide, and additional training documents we analyzed in our document review on similarities and differences between national languages and French, there is no clear underpinning for the timing and planning of introduction of various sub-skills across languages. In addition, the key literacy skills are often presented differently across documents. While the five skills are highlighted as the foundational skills in the pedagogical guide, sessions in the teacher's manual are organized by *lecture* [reading], *langage* [language], *écriture* [writing], *production d'écrit* [written production], and *poésie* and *recitation* [poetry and recitation] with reading sessions further broken down into learning new letters [symbol knowledge], reading syllables, oral comprehension, explaining an image, phonological awareness, fluency, and comprehension. This presentation, compared with the pedagogical guide can be confusing and lacks a clear organizing principle for teachers to understand the skill a session is focused on relative to the five foundational MOHEBS skills.

The foundation for the pedagogical guide is five foundational literacy skills - phonological awareness, the alphabetic principle, vocabulary, fluency, and comprehension. At a high level there are many similarities between these skills and the SoBR, however there are a few important differences. Within the alphabetic principle – there are several sub-skills - print awareness, orthographic principle, symbol knowledge, print vocabulary and decoding. These skills appear separately in the house to show the discreet skills necessary for students to graduate up towards reading comprehension in L1 and L2. Within the five MOHEBS skills – vocabulary and comprehension include both language comprehension (e.g. oral) capabilities as well as word recognition (e.g. processing written text) capabilities. This can create a complicated understanding of skills for example, when just oral vocabulary is introduced in CI in French, not written vocabulary, however this is combined into one skill in the foundation of the curriculum. For reading comprehension, language comprehension is a key pillar that holds up overall reading comprehension, and a prerequisite for achieving overall reading with understanding. Combining these skills, even if they are broken out as sub skills, can lead to confusion in how overall reading progression works for learners.

Last, a key difference between SoBR model and the MOHEBS curriculum is the current MOHEBS pacing, which according to our GPE KIX monitoring data, is not aligned with students' current

progression in Wolof and French skills. The SoBR prioritizes teaching at the right level *in the right languages* to meet students at their current skill levels, ensuring that instruction is adaptive, developmentally appropriate, and rooted in students’ linguistic realities. In contrast, the MOHEBS curriculum is highly scripted, with limited flexibility to adjust when learners fall behind resulting in pacing that often outpaces students’ readiness and undermines the intention of scaffolding. Although French word recognition is introduced at the beginning of CP, the data shows that many children are still struggling with foundational skills: by the end of CI, students are unable to read with comprehension in Wolof. Our GPE KIX data in Fatick, found that average language comprehension scores in French (answering questions about a text read aloud) averaged just 24% for CI, and CP only modestly improved to 26%, suggesting persistent difficulties in French. In addition, toward the end of CI and CP (May 2024) language comprehension in French is notably low across both grades, with CI averaging 1% and CP students scoring only 31% on targeted questions. These data suggest that the current pacing and rigidity of the curriculum is outpacing students.

In the following section, we describe all the MOHEBS skills in the curriculum considering the trajectories and progression of the SoBR.

Concept of Print. The Senegalese curriculum does not necessarily provide focused instruction on the concept of print, maybe operating under the assumption that children have acquired this skill prior to CI. In the curriculum, the concept of print is included along with letter recognition and decoding in what is referred to as the “alphabetic principle.” The CEB describes the alphabetic principle as the concept that “print represents the idea that one wants to express.”²²⁹ It also covered “competences lexicals” which allow students to count words, sentences, and learn the basic of punctuation. However, the content in the curriculum is relatively light on very basic understanding of print, such as exposure to pictures and words, teach students principles about reading left-to-right and top-to-bottom or that letters make up words, which make up sentences, which are separated by punctuation. Instead, the alphabetic principle primarily focuses on letter and grapheme recognition. In early grades, some lessons include matching sentences to images, thus supporting the understanding that words show meaning, separate from illustrations. Lessons also include providing opportunities for children to handle reading materials, and students, in theory, should all receive a student book that is aligned with the MOHEBS teacher materials. The curriculum could be improved by providing more scaffolding for the concept of print, especially because many children may not be in a print-rich environment. More explicit instruction on the concept of print early in literacy instruction would facilitate understanding of these key, basic skills and concepts and facilitate

Key Takeaway

Senegal’s curriculum does not explicitly teach basic principles of the concept of print, which could help promote clarity of understanding and facilitate transfer from reading Senegalese languages to reading French.

transfer to French, which uses the same print concepts as the Senegalese languages. This is also especially critical for children who might be seeing text for the first time when they enter formal education.

Language Comprehension. Building language proficiency includes activities to reinforce listening, speaking, and oral vocabulary in the national language. The MOHEBS curriculum includes exercises for listening comprehension with vocabulary building components. One particularly strong aspect of the curriculum is how the curriculum integrates familiar contexts, storytelling, and oral exercises to enhance understanding and use of national languages in everyday situations. The curriculum also includes some thematic vocabulary and pictures to introduce words, although it could be improved by covering more words to describe actions, feelings, or specific subjects and integrating additional ways for students to connect new words with their background knowledge. Appropriately, the early grade curriculum focuses on more complex language skills in the national language while introducing more foundational listening and speaking skills in French. The curriculum begins with basic greetings and common phrases, then moves toward more structured dialogues and interactive speaking exercises in French. It also incorporates songs, rhymes, and simple conversations to familiarize students with French sounds and basic vocabulary, which are key elements to building initial language skills. Beginning in CP/Grade 2, the pedagogical guides include stories for listening comprehension in French. The stories aptly include pictures that teachers can use to reinforce known vocabulary words and prompt the discovery of new words.

Key Takeaway

Language comprehension in the national languages, through storytelling and oral exercises, is a key strength of the MOHEBS curriculum.

Phonological Awareness. The bilingual MOHEBS curriculum includes a strong theoretical basis for phonological awareness as an important precursor to reading, which it defines as “the ability to identify and manipulate the sounds/phonemes within a syllable or word.”²³⁰ The curriculum presents these skills, beginning with consonant sounds, then vowel sounds, followed by syllables and phonemes with more complex sounds. While this is intended to show progression by complexity, beginning with syllables will be more in line with the science of reading acquisition in alphabetic languages. In addition to progression by complexity, the curriculum also moves from more common to less frequent and irregular sound patterns and presents basic skills such as identifying sounds and blending in a logical order. In CI/Grade 1, the focus of phonological awareness skills begins with the Senegalese languages. In CP/Grade 2, the curriculum reviews some of the more complicated sounds in the national languages, such as implosives and prenasalized consonants, and begins the shift toward

Key Takeaway

The MOHEBS curriculum includes a strong base of phonological awareness skills as a precursor to reading, progressively moving from simple to more complex concepts in Senegalese languages in CI before focusing on French skills in CP

phonological awareness, primarily for French. The progressive introduction, practice, and review of phonological skills is a strength of the MOHEBS curriculum. One potential area for improvement is to incorporate more exercises related to rhyming and alliteration, which are core competencies for phonological awareness.

Decoding. The bilingual MOHEBS curriculum introduces and reinforces decoding skills with a progressive and systematic structure. It begins with letter recognition, presenting grapheme–phoneme (i.e., letter–sound) correspondences in an explicit and sequential fashion, then introduces sound patterns in a logical progression, for example, beginning with consonant–vowel–consonant words, and then moving toward more complex letter combinations. Student workbooks provide opportunities to practice with letters and combine letters and syllables over time. The curriculum consistently teaches blending, which is an important skill for reading and spelling. It also integrates regular assessment and targeted remediation to ensure that all students can achieve proficiency. Some potential areas for improvement include (a) greater attention to word families (i.e., words with similar form and spelling) to prompt associations and reinforce concepts, (b) increased focus on teaching prefixes and suffixes, especially considering the importance of such features in the orthographies of many national languages, and (c) a delay in the introduction of French decoding skills. Although the curriculum in CI and CP includes a strong focus on L1 decoding to support the transition of these skills to French, it introduces French decoding earlier than students might be prepared for in CP, according to the transition threshold data presented above.

Key Takeaway

The MOHEBS curriculum includes a strong focus on decoding, presenting skills in a logical and sequential fashion. Yet it may introduce French decoding before students are ready, based on evidence of transfer readiness.

Oral Reading Fluency. The updated MOHEBS curriculum incorporates opportunities for children to listen to their teacher model oral reading fluency and practice reading aloud. The pedagogical guides for each language focus on the graduated “I do, we do, you do” approach, in which the teacher first models the skill, then practices with the students, and then asks the students to attempt the skill independently. Through this approach, the curriculum includes some activities in which the teacher reads a story or passage out loud, then offers opportunities for the students to practice, whether as a whole class, in pairs, or individually. Such practice, early and often, is key for students in building fluency. The curriculum also includes assessing students on the pronunciation, speed, and expression of their reading. One area for growth regarding oral reading fluency in the curriculum is to more strongly integrate commonly used “sight words” for readers to automatically recognize. Although the curriculum does include an illustrative list

Key Takeaway

Senegal’s curriculum includes teacher modeling and student practice for oral reading fluency. It could improve by emphasizing practice of commonly used words for automatic recognition.

of frequent words for children “to acquire overall” and, at one point, recommends that teachers practice four words per week, it does not emphasize this practice. More strongly emphasizing sight words, in both national languages and French, by regularly including key, frequently used words throughout the curriculum, along with introducing strategies for teachers to practice those words with their students, can help promote automaticity for emergent readers.

Reading Comprehension. The updated MOHEBS curriculum consistently emphasizes reading comprehension, first in national languages and then by progressing to French. Appropriately, many of the reading comprehension activities also tie in closely with language comprehension activities. The pedagogical guides frequently follow a formula for reading comprehension lessons, which includes an image for children to look at and answer questions about what they see and their predictions for the story. Then, the teacher will read the text aloud, ask comprehension questions, and ask learners to retell the story in their own words and relate it to their personal experience. Comprehension questions gradually increase in complexity as students progress. Lessons also often revisit previously learned words or introduce new words, therefore incorporating language comprehension skills, and they ask students to practice reading on their own, which builds fluency. These methods and the frequency with which they are used are strengths of the bilingual curriculum.

Key Takeaway

The pedagogical guides emphasize reading comprehension through a strong formula for engaging with stories. Despite the strength of this method, it could improve by adding more variety for student engagement.

Nonetheless, the curriculum could be strengthened by incorporating a wider range of activities and more engaging comprehension questions. Rather than focusing primarily on factual recall (e.g., “What did the character do?” or “Where did the character go?”), questions could prompt deeper understanding by encouraging inference and prediction, such as asking why a character acted in a certain way or what might happen next. Activities could also move beyond teacher-provided images by asking students to draw their own illustrations to demonstrate comprehension. In addition, providing opportunities for students to read level-appropriate texts independently after teacher read-alouds could further support comprehension and reading development.

Activities in the student books could be diversified to better align with students’ developmental stages in reading. For example, the CP/Grade 2 student book includes 36 lessons that follow an almost identical structure: an illustration for oral description, activities focused on reading letters, syllables, and words, sentences matched to pictures, and a short reading passage. This repetition can be redundant and does not always reflect a natural progression of reading skills. In some cases, instructional demands exceed students’ developmental readiness. For instance,

a lesson in Week 2 introduces basic French function words such as *et* (and), *est* (is), and *sont* (are) for decoding, while simultaneously requiring students to read and comprehend more complex words such as *orange*, *mardi*, *livre*, and *regarde*. This level of complexity is likely challenging for beginner readers who are just beginning to read in French.^{231,232} The CP French book also teaches teachers “whole word acquisition” of more complex words. Exclusive reliance on whole-word instruction, without explicit teaching of sub-lexical components (phonological and morphological), is inconsistent with established reading science and should be revised to ensure these components are taught explicitly.

Writing. Writing is a core literacy competency that mutually reinforces reading skills. The MOHEBS curriculum introduces writing skills by having students trace and copy letters, then advances to writing simple words, sentences, and short paragraphs. Yet with reading and language comprehension as primary focus areas, the curriculum includes limited opportunities for students to develop and practice writing skills. For instance, the pedagogical guide for CI/Grade 1 intermittently asks students to copy a letter five times for homework, without much in-class practice or more extensive homework assignments. The CP/Grade 2 student book includes some minimal writing practice (i.e., copying a few words in most lessons). According to the recommended time schedules provided to teachers, writing practices should only occur for about an hour per week in the early grades. The curriculum could improve its integration of writing skills with more repetition in letter-writing practice (or practice for frequently used “sight words” recommended to promote fluency), as well as more activities for children to practice writing as they learn to decode. Such activities could progress from asking students to write simple words to asking them to write sentences based on prompts. In addition, the curriculum could also include more explicit instruction on how to form letters (as in, the direction and order in which to draw lines and how high or low lines should fall within or below lined writing paper). Furthermore, the curriculum could include more

Key Takeaway

The MOHEBS pedagogical guides include limited opportunities for students to develop and practice writing skills.

creative and multisensory writing activities, such as writing in sand, forming letters out of available materials, or using fingers and body movements to “write” letters or words.

Teaching and Learning Materials

The MEN has identified low coverage of quality teaching materials as a major challenge to reading instruction in the country. Specifically, the MEN cited little diversity in reading materials adapted to levelled curricular standards and a lack of supplementary materials in elementary schools as challenges.²³³ Children’s literature, particularly in national languages other than Wolof and Pulaar, is rare. The few books available are often inaccessible and unaffordable for teachers. For example, in a sample of former LPT schools, 20% of third-grade teachers noted an absence of reading textbooks in L1, and 48% noted an absence of additional reading books/materials for children in L1.²³⁴ RELIT and publishing initiatives (EJO and the World Bank’s Read@Home program, and the ongoing Engeza program) work to address this issue of developing supplementary books in L1, with Engeza on track to produce 300 titles in 8 languages by early 2026. Shortages still exist in both translated and original texts in diverse literary styles for children’s picture books, beginning readers, beginning non-fiction, chapter books, intermediate-level fiction, and nonfiction texts across all categories of children’s literature.²³⁵ Senegal’s textbook publishing policy demands that materials be produced by private publishers. However, the private publishing sector has not invested in the development of national language books, due to a perception of an insufficient market and thus Senegal will have a long term challenge in building access to bilingual and national language reading books.²³⁶ The MEN has acknowledged the challenges with the low print environment and has made plans to carry out the following actions:

Key Takeaway

Teachers and students have access to high-quality TLMs as part of the MOHEBS reform. Any additional support for more literacy-rich classroom environments would be valued.

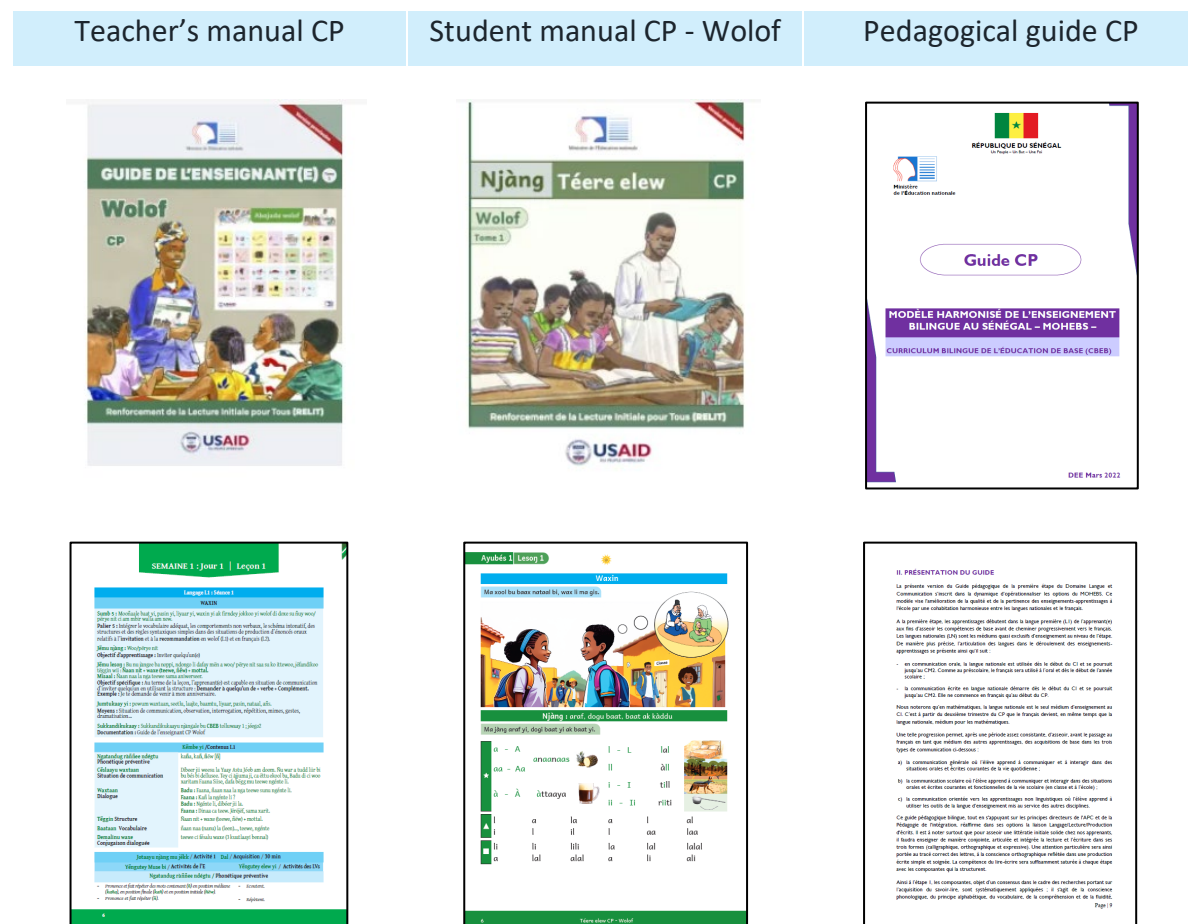
- Train student teachers in creating a print environment for national LoI;
- Organize activities such as reading competitions and reading rallies;
- Develop posters and reading boards for display in schools;
- Set up libraries and reading corners in schools; and
- Raise awareness among communities, parents, and local authorities on the need to create a literate environment outside the school.²³⁷

The 2019 PNLSE dedicated a budget of more than 30 billion *Franc de la Communauté Financière Africaine* (FCFA), (approximately 5.5 million USD according to 2025 exchange rates) to implement these goals,²³⁸ although the progress toward these activities remains uncertain.

Many foundational learning TLMs do exist to support the roll out of the MOHEBS curriculum. LPT and RELIT initiatives supported the initial development and refinement of the MOHEBS

TLMs that continue to evolve through government support. As described above, the main materials for the curriculum provided to teachers and students are the pedagogical guide, the teacher's manual in L1 and French and the student manuals in L1 and French that are unique to each grade. The teacher's manual and student manual for 2024 are both divided into two manuals (*tome 1 and tome 2*) to cover the full year. The pedagogical guide serves as the overarching background and supporting document for implementation of the curriculum and maps out key terms, theoretical underpinnings, and the progression of concepts throughout the school year. The teacher's manual provides scripted lessons which are aligned to student manuals in L1 and French. Student textbooks are a key classroom resource, featuring color images and student literacy exercises that follow a structured progression for literacy acquisition, aligned with phonics-based principles. Images of these key documents are shown below in Figure 14. In addition to these guides there are developed bigrammars and referential documents for middle and upper primary grades and teacher training guides (discussed in the following section).²³⁹

Figure 14. Image examples of key MOHEBS guides



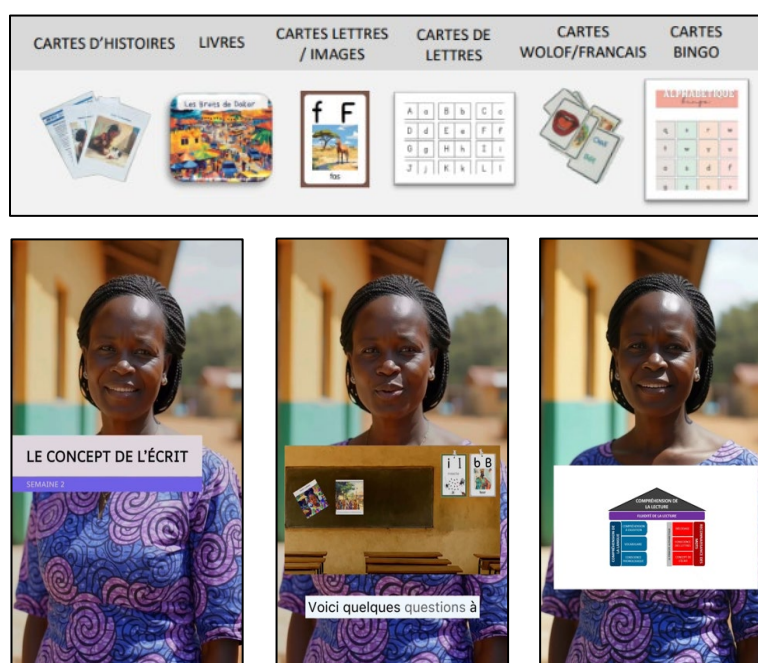
Beyond the core instructional documents, regions across the country have benefited from additional teaching and learning materials provided through various project-based interventions. Teachers and students participating in the LPT program received supplementary resources, including storybooks, take-home books, supplemental readers, and home–school communication tools. According to Ablaye Niang, Principal Advisor for RELIT, materials such as storybooks and decoding books were subsequently integrated into the main instructional packages to reduce fragmentation and promote coherence. RELIT implementation also included the provision of alphabet posters in French and Wolof, as well as the establishment of classroom reading corners stocked with books funded through LPT and RELIT.

In parallel, several initiatives have aimed to further support and supplement MOHEBS materials and objectives. Through the GPE KIX program, AIR developed FLIP, a set of resources designed to help teachers use formative assessment results to inform instruction. Aligned with the MOHEBS curriculum, FLIP links assessment results to targeted instructional strategies in both Wolof and French, allowing teachers greater flexibility to teach at students’ levels and to provide differentiated support during in-school remediation sessions. These strategies are accompanied by linked supplementary materials in both languages (see Figure 15).

To provide sustained support between coaching visits and formal training sessions, the project also developed short instructional videos, which are shared regularly with teachers via WhatsApp. These videos are aligned with the SoBR and systematically address key literacy skills by reinforcing teachers’ understanding of each skill, demonstrating how to assess it, and modeling effective instructional strategies. This approach offers a cost-effective mechanism for continuous professional support (see Figure 15 for illustrative examples).

In addition, under the Ndaw Wune project, ARED developed after-school remediation tools to support MOHEBS implementation, including formative assessments, student workbooks, and teacher guides for instruction in national languages.

Figure 15. FLIP materials



Formative Assessments

There are currently several types of formative assessments prescribed across the education system. In the MOHEBS teacher's manual, formative assessments are embedded throughout lessons. These assessments cite previous activities from the teacher's guide to conduct with students to understand their current levels but are not connected to linked strategies and do not provide clarity on scoring or interpretation of results. In the pedagogical guide, there are also formative assessments that have suggested remediation tasks.

These formative assessments provide examples of how to assess foundational skills but are not clearly linked to instructional timing or to the progression outlined in the teacher's manual (see Figure 16). At the regional level, Inspections d'Académie (IAs) administer formative assessments at the beginning of the school year, at the end of each trimester, and at year's end; however, these assessments are not standardized nationally. For example, the CI first-trimester assessment focuses on language comprehension, phonological awareness, and symbol knowledge in Wolof, while the CP assessment includes a broader set of skills in both Wolof and French. Based on assessment results, teachers

categorize students into four learner profiles (A–D) for targeted remediation. However, evidence from AIR’s ongoing GPE KIX project indicates inconsistent use of these formative assessments. In response, the project has linked assessment results to targeted instructional strategies to support more appropriately leveled student support (see Figure 17).

Figure 16. Pedagogical guide formative evaluation example

[illegible]

Figure 17. AIR GPE KIX pilot strategies tied to formative assessment results

Tableau récapitulatif des Stratégies

Dans le tableau suivant, nous répertorions chacune des stratégies incluses dans cet outil. Les stratégies ont une progression suggérée dans le tableau ci-dessous, basée sur le programme, mais l'essentiel est de *soutenir les élèves dans leurs compétences fondamentales là où ils n'atteignent pas une note C/D*. Une fois que les élèves ont obtenu une note C/D dans les compétences, selon l'évaluation formative, ils peuvent passer à des compétences plus avancées.

#	Compétence	Nom	Langue	Niveau(x)	Matériels	CI	CP	Page
1.1	Concept de l'écrit	Lecture aux enfants	Wolof	A, B	Libre : Sama Njaboort	TR1	TR1	22
1.2	Concept de l'écrit	Images contre mots	Wolof	A, B	Cartes Wolof/ Français	TR1		24
1.3	Concept de l'écrit	Compréhension des phrases	Wolof	A, B		TR2	TR1	26
2.1	Conscience phonologique	Sons magiques	Wolof	A, B		TR1	TR1	30
2.2	Conscience phonologique	Trouver des mots qui riment	Wolof	A, B		TR1	TR1	32

Translanguaging. Translanguaging, the principle of drawing on cognitive resources in multiple known languages to express oneself and build connections across languages, is key to developing multilingual proficiency. Teachers can promote translanguaging by encouraging students to code-switch in the classroom whenever it is helpful to express themselves, as well as through explicit instruction to connect both targeted languages. The MOHEBS bilingual curriculum does not include a strong focus on

Key Takeaway

The curriculum and pedagogical guides do not include much guidance related to translanguaging. Although the bilingual referential documents and bigrammar exercises provided for middle and upper grades are a helpful and comprehensive resource, they are likely introduced before students are ready.

translanguaging as a pedagogical principle, especially in the early grades. It does not highlight translanguaging or code-switching in the front matter of the pedagogical guides, as it does for other key, cross-cutting principles, such as cross-curricular skill integration, assessment, and remediation. Although teachers may use national languages to support French learning, most reading and language lessons in the curriculum focus solely on either the national language or French skills. Because the existing bilingual curriculum only covers language comprehension and reading subject areas, the way in which teachers handle translanguaging in subjects such as math and science is unclear. Teachers likely use various approaches toward translanguaging across these other subject areas, if at all.

Classroom observation data from the Gates Foundation Science of Teaching project (2025) show that, despite its absence in the curriculum, translanguaging was the most frequently used instructional strategy among the 98 CI/Grade 1 and CP/Grade 2 classes observed in the Tambacounda and Kédougou regions.²⁴⁰ Within a ~30-minute lesson, teachers switched to or from French an average of 10 times (median = seven) and switched to or from Pulaar or Mandinka (L1s) an average of eight times (median = seven). Other strategies—such as using visual aids or other teacher/student support—occurred fewer than three times per lesson on average, with many having a median of zero. This suggests that teachers rely heavily on translanguaging to support student comprehension, even without formal curricular guidance.

For middle and upper grades (CE1/Grade 3–CM2/Grade 6), MOHEBS has produced bilingual referential documents and bigrammar documents through RELIT to facilitate the transfer of skills from one language to another for more advanced learners. The referential documents define weekly listening, speaking, reading, and writing skills in both the L1 and French in a progressive manner, emphasizing the transfer of skills. Although the focus on transferring and the progressive complexity of the included skills are key strengths, the referential documents are not as user-friendly as the pedagogical guides for CI/Grade 1 and CP/Grade 2. The documents for bigrammar, defined as a didactic approach to systematically cross-analyze grammatical characteristics across languages,²⁴¹ provide a comprehensive resource, specifically for CE1/Grade 3 teachers. The lessons include side-by-side text in the national language and

French, as well as guided activities to identify grammatical components in each. For example, the lessons may have students underline specific parts of speech or notice differences between how plurals or possessives are handled in each language. Lessons also include exercises for students to practice writing and using proper grammar in each of the languages. However, the bigrammar documents assume that CE1/Grade 3 learners already have relatively strong reading skills in both targeted languages. Student assessment findings, as described in the evidence tier, show that Senegalese students do not have the requisite skills to benefit from the bigrammar lessons. Furthermore, it is not clear how teachers are meant to incorporate bigrammar lessons into the rest of the curriculum.

Teacher Workforce and Professional Development

Teachers are key to implementing LoI policies and programming, and the success of educational initiatives depends on their competencies. Here, we describe teacher language skills and the teacher recruitment and placement practices used by the MEN. Then, we elaborate on some of the professional development opportunities provided to teachers to enhance their language skills and competencies for bilingual/multilingual teaching. In doing so, we respond to the following question:

How are language considerations integrated into teacher recruitment, placement, and training (both preservice and in-service)?

Teacher Recruitment, Placement, and Language Skills

Program implementers involved in bilingual programming in Senegal have recognized that many teachers are not native speakers of the national languages they should teach.^{242, 243} Even teachers who are native speakers may not have learned to read and write in a Senegalese language.²⁴⁴ Currently, proficiency in national languages is not tested or considered for recruitment as a primary school teacher,^{245, 246, 247} although the guidelines for initial training for teachers in the *Centres Régionaux de Formation des Personnels de l'Éducation* (CRFPE) includes competencies to manage lessons in French and a national language, master oral and written communication in both languages, and demonstrate basic competencies for bilingual education.²⁴⁸ The MEN does not yet have a formalized assessment system to measure teachers' language competencies.^{249, 250, 251, 252} The assessments that do exist are fragmented, from sources such as monitoring and evaluation missions of programming in some regions and reports from teacher training and coaching.^{253, 254, 255, 256} Some assessments conducted as part of teacher trainings

Key Takeaway

Teachers in Senegal often do not speak or know how to read and write the national language of their students. The MEN recognizes this issue and has plans to more systematically collect data on teacher language skills to inform teacher placement, as well as include preservice training for teaching in national languages.

have shown weak reading and writing skills in the national Lol.²⁵⁷ In fact, the LITES study found that teachers performed better on a French reading comprehension assessment than on a comparable assessment in the school's national language: 41% achieved perfect scores in French compared to only 29% in the national language.²⁵⁸ According to one Ministry official, other studies on teacher abilities revealed a need to strengthen the language skills of teachers for them to teach in those languages.²⁵⁹ In cases where teachers do not speak the L1 of their students, teachers have reported relying on students who understand either the teacher's L1 or French to translate into the other students' language.²⁶⁰

After hiring teachers, the MEN has historically avoided placing them in their region of origin in an effort to avoid regionalism.²⁶¹ Yet the Ministry has acknowledged the need to account for teacher language skills for effective teacher placement.²⁶² With the advent of large-scale initiatives in national languages, the MEN plans to collect teacher language data, especially in terms of teacher linguistic skills, more systematically in the future within the MIRADOR (information system for teacher management) system to support the implementation of bilingual education.^{263,264} Some have shared that the human resources department has existing data on the linguistic profiles of teachers, which they use to ensure that teachers are placed in schools where they can effectively deliver lessons.^{265,266} However, this database is not yet comprehensive, and language skills do not currently factor into teachers' assignments in a systematic way.^{267,268} The MEN and Department of Human Resources therefore plan to revise the existing database to add information on language skills to teachers' profiles to better assign teachers.^{269,270,271,272} While this aims to strengthen bilingual education, it must be implemented in compliance with teachers' civil service rights and union protections. Teachers' status as public servants guarantee job security and career progression, and any changes to assignment criteria should respect these rights. Moreover, strong teacher unions play a critical role in safeguarding these protections, so their involvement in the process is essential to ensure transparency and avoid labor disputes, although the withdrawal of USAID funding has put this work on hold.

Because bilingual education has not yet been sufficiently integrated into preservice teacher training, which limits the effectiveness of in-service teacher training, as some have claimed,²⁷³ the MEN is working to reform preservice training for teachers. This reform aims to ensure that each teacher receives training in two national languages: his or her home/familiar language and another priority language in the system.²⁷⁴ Not only does the reform aim to improve teacher language skills, but it will also address identified gaps in teacher competencies to teach reading, including supporting teachers in developing a literacy environment in their classrooms and helping students transition from reading in the L1 to French.²⁷⁵ LPT assisted the MEN in developing and piloting a new teacher competency framework and preservice modules for teaching in national languages.²⁷⁶ Bilingual initiatives have also implemented trainings to

reinforce the linguistic competencies of teachers who do not speak the prescribed LoL.²⁷⁷ According to the manager of the MEN's Continuing Education Division, a supporting document for bilingual education training has been created and tested but not yet integrated into the system for wider use.²⁷⁸

Teacher Professional Development

Teachers in Senegal frequently lack training in bilingual pedagogy, and studies confirm that many rely on parallel, nonintegrated instruction in French and national languages.²⁷⁹ Although MOHEBS and its predecessors, such as ELAN, introduced the “bigrammar” approach to synchronize L1 and L2 instruction through shared linguistic structures, implementation of this approach remains

uneven due to the lack of formal teacher training in bilingual methods.^{280, 281} Many teachers, even those nominally trained, continue to rely on side-by-side instruction in French and the national language without integration.²⁸² This reflects the broader institutional weakness that bilingual pedagogy has not been fully embedded in teacher training curricula or formalized as a core teaching competency within national education standards.

Key Takeaway

Teachers in Senegal have historically felt unprepared to teach in national languages. The MOHEBS initiative has produced multiple training resources to support teachers, which have generated positive results.

A recent study as part of RELIT also found major professional development gaps in bilingual reading instruction, language transfer strategies (L1–L2), and national language literacy pedagogy among 1,145 sampled teachers, school directors, and inspectors.²⁸³ Through the study, teachers identified that they face the challenges of insufficiencies related to reading and writing national languages, confusion about how to transfer from L1 to L2, and inadequate training time. Another recent study found that most surveyed teachers are not well-equipped to teach in students' L1.²⁸⁴ Only 31% of the teachers indicated that they have the materials they need to be able to teach effectively in children's L1, and 43% of the teachers feel that they have been well trained to teach reading in L1, compared with 99% of teachers who reported feeling confident about teaching students to read in French.

To address some of these challenges, the MOHEBS initiative has produced several training modules for teachers through initiatives such as LPT and RELIT to reinforce the capacities of teachers in national languages and develop competencies in bilingual pedagogies.²⁸⁵ Using a “cascade approach,” beginning with training a regional team of inspectors and school directors, which in turn trains teachers,²⁸⁶ trainings have covered topics such as scaffolding bilingual reading skills, teaching orthographic rules and phonology of national languages, and facilitating transfer of knowledge from L1 to French. LPT, for instance, included an initial 10-day teacher training, with multiple ongoing training modes including shorter, localized trainings, distance learning modules, monthly coaching sessions, school-based and virtual peer networks,

pedagogical days, and SMS push messaging.^{287, 288} LPT also introduced modules in differentiated pedagogical practices to support students who may not speak the majority language of the classroom.²⁸⁹ However, due to financial constraints, in-service teacher training has now been shorted to five half days.

Key Takeaway

Educators generally have positive views of national language education. They recognize that using students' L1 as the LoI can benefit their academic performance and make teaching easier and more fruitful.

According to the action plan presented in the 2021 PNLSE, the MEN planned to continue building teachers' capacity in languages and reading instruction, dedicating nearly five billion FCFA (more than 8.8 million USD, according to 2025 exchange rates).²⁹⁰ Building on the modules developed and tested through LPT, the MEN planned to scale up the continuing education trainings for teaching in national languages to all 14 CRFPEs in the country.²⁹¹ Trainings continued through RELIT and the G2G programming, although RELIT reportedly did not focus as heavily on linguistic competencies as LPT.²⁹² The MEN also developed the *Curriculum Bilingue de l'Éducation de Base*, which aims to lighten the workload of teachers by providing them with a clear and explicit framework for planning and delivering lessons for bilingual education.²⁹³ Some MOHEBS trainings have also experienced delays, sometimes due to issues with financing.²⁹⁴ In addition, teachers trained by LPT expressed their view that the training dosage was inadequate, as they saw it as a barrier to successfully carrying out the multilingual education policy.²⁹⁵

Nonetheless, teachers who have participated in trainings have demonstrated a strong understanding of bilingual pedagogies²⁹⁶ as well as growth in national language skills.²⁹⁷ Being used to teaching in French, some teachers have sometimes struggled to adjust to bilingual methods, but with continued training and experience, they have progressively acculturated to the bilingual approach.²⁹⁸ Now, national language has become recognized among educators as a "pedagogical springboard,"²⁹⁹ used to strengthen comprehension, notably for French.

Community Engagement

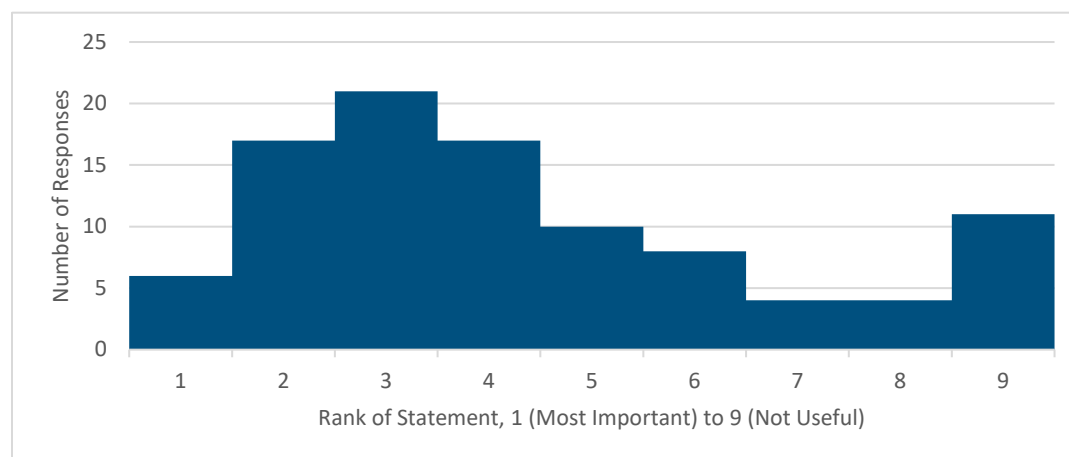
The sustainability and impact of Senegal's bilingual education reform rest not only on pedagogical quality and system design but also on the support of the communities in which instruction takes place. Evidence indicates that teachers and educators generally hold positive views regarding the use of national languages in schools, but parents have mixed perspectives. The MOHEBS reform has carried out several initiatives and developed plans to engage communities in bilingual education reform, which we describe as follows, in response to the following question:

How are parents and community members involved in decisions about the LoI?

Educator Views

First, representatives from the MEN and previous research in the country indicate that educators, in general, have welcomed the MOHEBS reform since it is an easy approach for them to implement, and they see the benefits for students.^{300,301} Hubert Ndecky, Manager of the MEN Continuing Education Division, noted that some teachers and inspectors, attached to the classic French education model, have hesitated to embrace bilingual education.³⁰² Communications from the MEN have helped to surmount this resistance.³⁰³ Even so, interview and focus group data find that teachers and school directors hold favorable attitudes toward teaching in students' native languages, based on (a) their experiences implementing bilingual education as part of the MOHEBS reform, (b) anecdotal and news reports about bilingual education, or (c) their challenges with monolingual education.³⁰⁴ Teachers who have implemented MOHEBS have overall perceived a positive impact on their students' literacy skills, as well as on student motivation, classroom engagement, and parental involvement in learning.³⁰⁵ Survey results from Tambacounda and Kédougou regions also found that school leaders recognize the benefits of time dedicated to building early language skills in the national languages.³⁰⁶ As shown in Exhibit 10, school directors ranked the following statement on the higher end of importance from a scale of 1 (most important) to 9 (not useful): *"Increase time spent on mastering Pulaar/Mandinka at school."* Conversely, when asked to rank the inverse statement—"Reduce time spent on Pulaar/Mandinka in school to encourage the earlier learning and use of French"—the majority of teachers (53%) assigned ratings within the bottom three ranks (7, 8, or 9).

Figure 18. Head teachers' rankings on increasing dedicated school time for L1



Note. N = 98 head teachers in Tambacounda and Kédougou regions.

Source. Authors' calculations from Gates Foundation Science of Teaching data.

Even in schools that have not yet implemented MOHEBS, teachers have noted the use of national languages to explain concepts, especially in early grades, when children often struggle to participate in classes that are conducted only in French.³⁰⁷ Teacher surveys in Dakar and Fatick, which included educators who have implemented national language education in their classrooms and those who have not, find that 98% of teachers believe it is important for children to learn to read in their home language.³⁰⁸

Nonetheless, some interviewed teachers expressed skepticism about teaching in national languages, citing the importance of learning French and expressing the idea that teaching Senegalese languages might slow or inhibit students' development of French skills.³⁰⁹ Half of the surveyed teachers in Dakar and Fatick indicated believing that teaching students to read in the national languages would take too much time away from teaching reading in French.³¹⁰

Parental Views

Despite generally favorable perspectives toward national language education among educators across Senegal, parents have expressed some mixed feelings about bilingual education. According to previous focus group data, parents unanimously agreed that everything should be done to increase students' language and literacy skills in French.³¹¹ They noted that because French is spoken internationally, it provides opportunities that national languages do not offer. Further, students can secure better jobs in the future if they master the French language. Thus, many parents fear that bilingual education could inhibit students' French language acquisition. Interviews with MEN stakeholders also note that many parents misunderstand why their children should go to school to learn languages they already speak and understand,^{312,313} but others have claimed that community members object to minority languages not being included in the curriculum.³¹⁴ Cheikh Beye, MEN leader who was in charge of RELIT programming, notes that this remaining resistance may occur due to communication and community engagement efforts not yet reaching their full potential.³¹⁵

Key Takeaway

Parents generally find children's French skills to be of the upmost importance, although some do recognize the benefits of national language education. These mixed perspectives indicate that community members are likely receptive to bilingual education initiatives but need sensitization about how learning in national languages can benefit French acquisition.

As previously mentioned, the choice of national languages used for bilingual education also poses challenges to the acceptance of educational reform by linguistic minorities.^{316,317} Despite the language mapping conducted for LPT and RELIT/MOHEBS programming, implementers have experienced some resistance among local populations.³¹⁸ In cases where their languages are not included in the programming, some communities prefer not to enroll their children due to the lack of a representative language.³¹⁹ After MEN officials carried out awareness-raising actions, the communities accepted the proposed linguistic compromise.³²⁰ To deal with

community resistance, the MEN has generally planned to raise awareness during language mapping to explain language choice and use local language solutions when the dominant language is not yet included in the available programming.³²¹

Although some parents and communities strongly encourage French, others do recognize the benefits of using national languages of instruction in schools. They note that instruction in children's familiar languages may support students' literacy in French and their L1, as well as comprehension in other subjects.³²² Some parent focus group participants remarked on the futility of using French as the primary LoI before children understand the language. Other parents also view bilingual education as a means to preserve national languages, which they desire their children to know. Overall, these mixed perspectives toward national language education indicate that parents and other community members are likely receptive to bilingual education initiatives but need sensitization about how learning in national languages can also benefit students' French acquisition.

Community Engagement Initiatives

Evidence from recent bilingual education programming indicates that a diverse range of community engagement strategies have had measurable success in some domains but continue to face challenges, particularly regarding parental concerns and regional equity.

LPT, for instance, engaged communities in selecting the national LoI to be used in schools.³²³ LPT also implemented a parent and community component in a sample of program communities.³²⁴ This component consisted of tools and training for early-grade reading support and school-community grants for reading activities. A randomized controlled trial showed that the parent and community model had a positive impact on student reading levels.

The strategic framework for the implementation of the PNLSE includes a focus on engaging parents and communities in response to the identified low levels of engagement to support reading.³²⁵ This plan outlines numerous goals on topics related to communicating student results with parents and supporting communities in creating literacy-rich environments, among others, along with a dedicated budget of 58 billion FCFA (more than 100 million USD, according to 2025 exchange rates). The PNLSE also mentions that advocacy and communication activities will be carried out in relation to the LoI but does not include details about those activities.

The MEN has specified that communication is a key component of the MOHEBS bilingual education reform, although it has experienced limited deployment on the ground.³²⁶

Key Takeaway

Despite successful community engagement through LPT and the elaboration of communication plans through MOHEBS, the MEN has not yet carried out community engagement related to bilingual education through MOHEBS.

The MEN has discussed community engagement related to MOHEBS and has hosted workshops to elaborate on the communication plans. According to one MEN official, this communication strategy, deployed with support from the Directorate of Information and Communication, is meant to clarify that bilingual education aims not only to teach national languages but use them as a tool for improving academic performance, including in French. Another MEN official notes that community forums have been organized to explain the benefits of bilingual education and overcome community hesitations.³²⁷

Nonetheless, most community sensitization in Senegal related to bilingual education has occurred through USAID programming, which is no longer active.³²⁸

Monitoring and Evaluation



In the final tier of the BUILD framework that we analyze (the final is the improved outcomes which are meant to be tracked over time), we assess Senegal's M&E system to see how well the country regularly incorporates data related to each of the other education system components, including language considerations, for ongoing refinement.

M&E System

First, we address the following question:

Does Senegal have a regularly updated M&E plan, and are there national or subnational mechanisms to use this data for continuous improvement in FLN outcomes?

Senegal has established a robust M&E system that is routinely updated and closely linked to national education policy cycles. The MEN relies heavily on the *Système d'Information pour la Gestion de l'Éducation Nationale* (SIMEN), a centralized Education Management Information System (EMIS) launched in 2018 to integrate previously fragmented statistical tools. SIMEN builds on earlier platforms such as StatEduc and feeds directly into annual performance reviews and national reporting mechanisms, including the *Rapport National de Suivi de l'Éducation* and UNESCO submissions.³²⁹ This integration ensures that EMIS-generated data are formally embedded within the country's sector planning and financial simulation models, notably the

Key Takeaway

Senegal's M&E system explicitly builds in linguistic dimensions through national-language assessments and contextual tools, which is being formalized under the government's bilingual reform. Systemwide assessments still prioritize French, and national education reform is working to address this.

PAQUET (2018–2030) and the *Plan d'Amélioration et de Développement de l'Éducation du Sénégal* (PADES) (2019–2023).³³⁰

At the national level, Senegal has systematically mainstreamed results-based management into its education sector, which strengthens the use of data for accountability and policy learning. Reforms since 2007 have emphasized the production of timely sector indicators, the embedding of logic models across subsectors, and the institutionalization of annual performance reports.³³¹ The *Projet d'Amélioration de la Qualité et de l'Équité de l'Éducation de Base* (Project for Improving the Quality and Equity of Basic Education) (2013–2025) introduced performance contracts for schools, subnational offices, and universities, requiring them to set measurable goals and track progress using EMIS and learning assessment data.³³² These contracts were intended to sharpen accountability for outcomes, although implementation has faced bottlenecks such as limited capacity for local adaptation and tight timelines.³³³

Senegal has also invested in strengthening subnational data use mechanisms. SIMEN was piloted in 161 schools across 10 regions, with expansion underway to reach more than 1,700 additional schools.³³⁴ Regional and departmental education offices now feed their annual reviews into national databases, creating vertical linkages between local data collection and national sector analysis. However, barriers such as weak electricity and connectivity in rural areas, uneven uptake of digital tools, and continued reliance on external technical support constrain the full usage of these systems.³³⁵ As a result, although subnational actors increasingly have access to M&E data, their capacity to employ this information to improve FLN outcomes remains uneven.

A distinctive feature of Senegal's M&E environment is its active participation in national and international learning assessments, which serve as complementary evidence sources for monitoring FLN. The country has participated in PASEC since the 1990s, most recently in PASEC2024, which highlighted persistent challenges in foundational skills despite improvements to school access.³³⁶ Senegal has also implemented the SNERS, EGRA, and Jàngandoo household-based survey in addition to piloting the Program for International Student Assessment for Development and joining the UIS-led MILO study in 2021.³³⁷ Together, these assessments provide a rich evidence base for student learning trajectories, including FLN competencies, though their overlap has led to duplication and inefficiencies.³³⁸ Recognizing this, the MEN has committed under the MOHEBS reform to develop a permanent, harmonized schedule of assessments that systematically includes FLN and reduces redundancy.³³⁹

Despite these advances, challenges remain in ensuring that M&E data directly contribute to continuous FLN improvement. Although Senegal now produces timely and reliable sector statistics, the translation of these data into actionable strategies at the school level remains

limited.³⁴⁰ For example, performance contracts have sometimes been criticized as top-down tools that lack sufficient training or flexibility for school-level actors.³⁴¹ Similarly, although SIMEN has improved data consistency, real-time statistics are not yet widely accessible for frontline educators. This has created a “last mile” gap between robust national monitoring and its practical use in classrooms.

Key Takeaway

Senegal has established a robust M&E system that is routinely updated and closely linked to national education policy cycles as well as international learning assessments. Challenges such as limited harmonization, local capacity constraints, and weak feedback loops remain but are being addressed by ongoing reforms.

Overall, Senegal does have a regularly updated M&E plan, embedded in EMIS and annual reporting frameworks, and has developed national and subnational mechanisms, such as performance contracts, sector reviews, and SIMEN expansion, that aim to translate data into continuous FLN improvements. The country’s active participation in international assessments further enriches its evidence base. However, limited harmonization, local capacity constraints, and weak feedback loops continue to hinder the systematic use of these data to improve foundational learning outcomes on the ground. Ongoing reforms under PAQUET 2018–2030 and MOHEBS are explicitly designed to address these gaps by fostering coherence and strengthening the link between M&E and FLN outcomes.

Linguistic Considerations

Next, we examine how the M&E system addresses language issues in response to the following question:

To what extent does M&E incorporate linguistic considerations, including data on teachers’ and learners’ Lol?

M&E for FLN in Senegal explicitly builds in linguistic dimensions through national language assessments and contextual tools, and this is being formalized under the government’s bilingual reform. Since 2017, the government’s flagship reading program (LPT) has run EGRA studies in Wolof, Pulaar, and Seereer, paired with school- and teacher-questionnaires (SSME) and a student context survey. MEN directorates, including the Directorate for Literacy and National Languages, were involved in instrument development, and a school-level language mapping exercise was planned to ensure language–school alignment. More recently, the MOHEBS bilingual policy and USAID’s follow-on RELIT program have embedded M&E and learning agendas that track bilingual implementation and feed evidence back into the system.^{342, 343, 344}

Learners’ Lol and outcomes are measured and reported by language group, with bilingual performance tracked over time. The 2017 baseline EGRA tested CI and CP in the three national languages (plus a common French word-reading subtask), and the 2019 midline again assessed

Wolof, Pulaar, and Seereer and added connected-text reading in French at CP, allowing for a language-disaggregated trend analysis. These reports present reading outcomes (e.g., oral reading fluency and comprehension) separately for each language group and include comparative French results, making it possible to monitor bilingual learning and transfer.^{345,346}

The existing M&E system also captures teachers' linguistic capacity, comfort, and classroom language use. The program's knowledge, attitude, and practice (KAP) surveys at baseline quantified teachers' self-reported proficiency and comfort using national languages (e.g., only ~31% felt "completely comfortable" teaching reading in a national language, versus 68% in French) and triangulated this with observation of actual language use. Later midline analyses noted that teacher self-efficacy in national languages improved from the baseline but still lacked comfort in French. These teacher-focused data illuminate whether Lol policy is implementable in real classrooms and identify what support is needed.^{347,348}

At the same time, system-level assessments still center on French, the official language, thus limiting the routine measurement of learning in national languages outside program studies. PASEC 2019, Senegal's regional assessment, measures reading in the official Lol (i.e., French) alongside mathematics. Senegal's profile notes 22 codified national languages, but the assessment itself remains in the official Lol, constraining cross-system visibility on early reading in national languages. This highlights a gap between program-embedded bilingual M&E and systemwide accountability metrics.³⁴⁹

Overall, linguistic considerations are well-integrated within Senegal's FLN M&E system through language-specific EGRAs, contextual surveys, and teacher KAP instruments. MOHEBS is moving this from project to policy by aligning curricula and developing a system of assessments in six national languages plus French. The remaining gap is at the national assessment layer (e.g., PASEC/SNERS), which still prioritizes French; RELIT's mandate to help INEADE link policy to assessments in national languages and French as a second language is designed to close that gap. However, with the termination of RELIT, the future of this mandate is uncertain.

Continuous Improvement

Finally, we assess the extent to which Senegal uses its M&E system for continuous improvement, as aligned with the following question:

How are M&E findings used to inform and revise curriculum, teacher training, and Lol policies?

M&E findings in Senegal have increasingly shaped reforms in curriculum, teacher training, and Lol policy, though the degree of institutionalization varies across levels. The MEN has used evidence from large-scale assessments and program evaluations to guide bilingual curriculum

development, revise teacher deployment policies, and scale up teacher professional development initiatives. However, the use of evidence remains strongest in donor-funded bilingual programs (e.g., LPT) and weaker in systemwide curriculum reforms, where the French language still dominates. As follows, we describe how Senegal uses its M&E system to inform curricular and LoI policy reform, teacher training and professional development, and policy feedback.

Key Takeaway

The MEN has demonstrated a strong use of evidence to guide bilingual curriculum development, revise teacher deployment policies, and scale up teacher PD initiatives. However, gaps remain in scaling evidence-informed practices systemwide, especially in embedding national-language assessment data into national accountability systems.

Curriculum reform and LoI policy. Evidence from bilingual learning assessments has directly influenced curriculum design under MOHEBS. Pilot data from EGRA assessments in Wolof, Pulaar, and Seereer under LPT show that students taught in national languages in early grades make faster progress in foundational literacy than those taught only in French.^{350,351} These findings support the MEN’s decision to institutionalize a bilingual model beginning with six national languages, with French introduced gradually. MOHEBS reform packages thus explicitly draw on evidence from program-embedded M&E to shape a new bilingual curriculum.³⁵²

International assessments have also highlighted systemic weaknesses that have motivated curricular review. For example, PASEC 2019 found that nearly 60% of CP pupils in Senegal failed to reach minimum proficiency in reading and mathematics in French.³⁵³ These results underscore the fragility of early learning and reinforce calls to align curricula more closely with children’s linguistic realities. MEN’s 2025 *Lettre de Politique Sectorielle de Développement de l’Éducation* (LPSP) references such findings in its commitment to scaling bilingual instruction and reforming French as a second-language teaching.³⁵⁴

Teacher training and PD. M&E findings have also been used to adjust teacher training approaches, particularly concerning LoI. Baseline KAP surveys from LPT reveal that although many teachers support bilingual education in principle, less than one third feel “completely comfortable” teaching reading in a national language, compared with nearly 70% in French.³⁵⁵ These insights directly shaped the design of preservice and in-service training, with additional modules developed on early grade reading in national languages and bilingual pedagogy. Midline findings showing gradual improvements in teacher self-efficacy³⁵⁶ validated the need for ongoing PD and informed MEN’s decision to embed bilingual pedagogy training within teacher training institutes (CRFPE).

The teacher management module in SIMEN, which records teacher language skills, qualifications, and deployment, has further allowed M&E data to guide where bilingual-trained

teachers are posted.³⁵⁷ By linking teacher placement to linguistic profiles, the MEN has attempted to align teacher deployment with community language needs, though this system may not be comprehensive or consistently applied.

Policy feedback and system-level learning. Beyond curriculum and teacher training, the M&E system has provided a feedback loop for broader Lol policy debates in Senegal. The evaluation of LPT informed the MEN's decision to scale elements of the program nationwide and codify bilingual instruction into law through MOHEBS.³⁵⁸ Similarly, dissemination of EGRA, SNERS, and Jàngandoo results has elevated public awareness of gaps in foundational learning, prompting policy makers to recognize bilingual education not only as a pedagogical strategy but also as an equity and rights-based reform.³⁵⁹ At the same time, critiques of fragmented assessment systems and overreliance on donor-funded evaluations have spurred the MEN to commit to a permanent, harmonized evaluation schedule under MOHEBS, which explicitly includes assessments in national languages alongside French.³⁶⁰

Overall, M&E findings in Senegal have been pivotal in driving the adoption of a bilingual curriculum, reorienting teacher training toward national-language pedagogy, and legitimizing Lol reforms. Nonetheless, gaps remain in scaling these evidence-informed practices systemwide, especially in embedding national-language assessment data into national accountability systems such as PASEC. Future reforms under MOHEBS aim to close this gap by making linguistic considerations a permanent feature of curriculum, teacher training, and assessment cycles.

Summary and Assessment of System Progression

Here, we summarize the evidence along each tier of the BUILD framework, which we use to determine which stage of development the country falls into according to the Progression Scale presented on pages 10-13.

FLN Goals and Language Policy

AIR's review of Senegal's FLN goals and Lol policy shows that the country has clearly defined its goals for foundational learning and has set strong benchmarks that play a notable role in bilingual programming. The MOHEBS model provides clear guidance on Lol sequencing, language eligibility, and instructional design but does not yet have legal status as an official Lol policy, thus limiting its potential as a fully institutionalized transition model. Without the backing of a national legislative framework to align bilingual pedagogy, curriculum standards, and teacher preparation, MOHEBS remains a programmatic model rather than a systemwide mandate. The government and partners have extensively developed MOHEBS programming

across its four components (communication, training, materials, and monitoring) and have implemented the model at a large scale across several regions of Senegal. Nonetheless, MOHEBS has not yet reached all regions and is largely dependent on support from donors and implementing partners. Therefore, we would characterize Senegal’s LoI policy as being at the **Established** stage, as indicated by the progression criteria in Figure 19.

Figure 19. Progression criteria for LoI policies

Absent	Emerging	Developing	Established	Institutionalized
No official LoI policy is in place to reach the FLN goal(s).	A LoI policy exists, but it is vague, fragmented, or not aligned with the FLN goal(s).	A LoI policy is defined, with growing government commitment and early implementation to achieve the FLN goal(s).	A LoI policy is applied in practice and supported by implementation structures in support of the FLN goal(s).	A LoI policy is embedded in national education systems and reviewed regularly in alignment with the FLN goal(s).

Evidence and Data Use

Our review finds that Senegal’s MEN has appropriately responded to student assessment trends through targeted policies and programs. It has addressed achievement gaps and justified continued investments using monitoring and evaluation findings. Bilingual education—the focus of this review—has been informed by student assessment data and, to a limited extent, by evidence on national languages and language-mapping data.

Specifically, the MEN, linguists at Université Cheikh Anta Diop, and initiatives such as ELAN and RELIT have produced and compiled significant resources regarding the linguistic properties of the country’s national languages. When deciding which national languages schools should use for bilingual education, the MEN and implementing organizations such as RTI have conducted language mapping exercises consisting of community consultations, questionnaires among teachers and school directors, and observations of the languages used by children during play. Semantic fluency assessments, which empirically determine which languages students know and understand, have not been used to determine LoI at the school or regional level. Assessments that have been conducted in some parts of the country show that even in schools that have received educational programming in national languages, many students are not learning in languages they understand.

Furthermore, research using student assessment data in some regions of the country shows that there is a discrete point at which students who have obtained decoding abilities in a familiar language are able to transfer those skills to French at a faster rate. These findings support the importance of the MEN’s efforts to integrate and support literacy programming in national languages throughout the country. The MEN could use this research on reading thresholds by supporting teachers in using formative student assessments to determine when

those students are ready to begin learning to read in French or by tailoring the curriculum to transition to French literacy skills when a desired percentage of the student population typically obtains the requisite national language skills. Based on these findings, we could classify Senegal’s level of progression related to evidence and data use as **Established** according to the criteria presented in Figure 20.

Figure 20. Progression criteria for evidence and data use

Absent	Emerging	Developing	Established	Institutionalized
Education stakeholders do not use or have access to evidence related to student language skills to inform and adapt policies and practices.	Education stakeholders have access to some data related to student language skills, but the data are only available on a limited scale or have suboptimal quality.	Education stakeholders have access to student language mapping on a large scale, some evidence on language transfer between some L1s and the desired L2, and some other LoI indicators.	Education stakeholders have access to student and teacher language mapping data on a national scale, language transfer data between the most prominent L1s and the desired L2, and data on additional LoI indicators.	Education stakeholders not only have access to language mapping, language threshold data, and other LoI indicators aligned with all BUILD tiers but also regularly use and update those data to inform policies and practices.

Curriculum and Materials

Based on the SoR and existing evidence on student language and literacy skills in Senegal, our review of the MOHEBS curriculum and materials for early-grade reading indicates the following key strengths and areas for growth, as presented in Figure 21.

Figure 21. MOHEBS curriculum strengths and areas for growth

Reading Skill	Strengths	Areas for Growth
Language proficiency	A focus on oral comprehension in the national languages through storytelling and oral exercises	
Concept of print		Explicit teaching of basic principles of the concept of print, which could help promote clarity of understanding and facilitate transfer from reading Senegalese languages to reading French
Phonological awareness	A strong base of phonological awareness skills as a precursor to reading, progressively moving from simple to more complex concepts in Senegalese languages in CI before focusing on French skills in CP	
Decoding	A strong focus on decoding, presenting skills in a logical and sequential fashion	Incorporating evidence on student transfer readiness to delay the introduction of French decoding until students are ready
Reading fluency	Inclusion of teacher modeling and student practice for oral reading fluency	Emphasizing practice of commonly used words for automatic recognition

Reading comprehension	A strong formula for engaging with stories to emphasize reading comprehension	Inclusion of additional practices for student engagement in reading comprehension exercises
Writing	Incorporating additional opportunities for students to develop and practice writing skills	
Translanguaging	Developing in-depth guidance related to translanguaging in the early grades	

Our evidence review also shows that teachers and students have access to high-quality TLMs as part of the MOHEBS reform. Yet the country experiences a relatively poor print environment, with a dearth of reading materials in the national languages and French. Educators could use additional support for more literacy-rich learning environments. Based on this evidence, we would characterize Senegal’s level of progression for multilingual curricula and materials between the **Developing** and **Established** stage, according to Figure 22.

Figure 22. Progression criteria for curriculum and materials

Absent	Emerging	Developing	Established	Institutionalized
The curriculum does not address multilingual teaching. Instructional materials in local languages are unavailable.	The curriculum addresses multilingual teaching to a minimal extent. Some instructional materials integrate language considerations.	The curriculum and materials incorporate the science of reading for multilingual learners, reflecting students' linguistic contexts. Instructional materials increasingly integrate language considerations.	The curriculum and materials are fully aligned with the science of reading for multilingual learners, reflecting students' linguistic contexts.	A high-quality, regularly updated curriculum and corresponding materials support evolving FLN and Lol goals.

Teacher Workforce and Professional Development

According to our evidence review, the MOHEBS initiative has produced multiple training resources to support teachers, which have generated positive results and helped teachers feel more prepared to teach in national languages. However, some gaps in teacher preparedness still exist. For instance, teachers in Senegal often do not sufficiently know how to speak, read, or write the national language of their students. The MEN recognizes this issue and has plans to more systematically collect data on teacher language skills to inform teacher placement, as well as include preservice training for teaching in national languages. Based on this evidence, we would characterize Senegal’s level of progression for teacher recruitment and placement related to Lol and for teacher PD to support multilingual education at the **Developing** stage, according to Figures 23 and 24.

Figure 23. Progression criteria for teacher recruitment and placement

Absent	Emerging	Developing	Established	Institutionalized
No official teacher recruitment or placement plan is in place that accounts for teachers' language skills.	A teacher recruitment and placement plan that accounts for teacher language skills exists, but it is vague, fragmented, and not operationalized.	A teacher recruitment and placement plan exists with a focus on Lol, though it is in early implementation and not fully operationalized.	A strong teacher recruitment and placement plan exists with a focus on Lol and is supported by implementation structures.	A strong teacher recruitment and placement plan that focuses on Lol exists, is embedded in national education systems, and is reviewed regularly in alignment with FLN goal(s).

Figure 24. Progression criteria for teacher PD

Absent	Emerging	Developing	Established	Institutionalized
Teachers receive no pre-service or in-service training on teaching in multilingual contexts or using national languages for instruction.	Teachers receive limited training on teaching in multilingual contexts or using local Lols, but that training is not sufficient for teachers to feel prepared to teach in local languages.	Teachers receive more notable trainings on teaching in multilingual contexts and using local Lols, yet these trainings are not yet comprehensive and system-wide. Some gaps exist in teacher preparedness.	Trainings on teaching in multilingual contexts and using national Lols are integrated extensively into in-service and pre-service teacher training.	Ongoing, adaptive training responds to demographic and linguistic shifts among teachers and learners.

Community Engagement

Research across some regions of Senegal has found that educators generally have positive views of national language education and recognize the benefits to student academic performance. Although some parents recognize these benefits, most emphasize the importance of children's French acquisition, thus indicating a need for community sensitization about how learning in national languages can benefit French acquisition.

Despite successful community engagement through LPT and the elaboration of communication plans through MOHEBS, the MEN has not yet carried out community engagement related to bilingual education through MOHEBS. For that reason, we could characterize Senegal's level of progression for community engagement as **Emerging**, according to the progression criteria in Figure 25.

Figure 25. Progression criteria for community engagement

Absent	Emerging	Developing	Established	Institutionalized
Communities are largely unaware of the benefits of multilingual education. Little or no sensitization efforts are in place. Communities have no tools to support children to read in school languages. Communities are not engaged in supporting education in school languages.	Information-sharing efforts such as awareness campaigns may be in place, but they are not yet at scale with proven effectiveness. Families and communities have limited involvement in supporting multilingual education.	Families and communities are generally aware of the benefits of multilingual education. Communities are somewhat engaged in decisions and/or implementation of multilingual education through, for example, language mapping, focus groups, materials development, or supporting student language and literacy development at home.	Families and communities are largely aware of the benefits of multilingual education. Parents and communities actively support learning in the home language and/or the transition to the L2.	Community engagement and commitment to multilingual education is deep and sustained. Families and community members are continually involved in governance, curriculum feedback, material development, and home language and literacy support.

Monitoring and Evaluation

Currently, Senegal has an M&E system in the process of being linked to national education policy cycles and international learning assessments. Senegal’s M&E system explicitly builds in linguistic dimensions through national-language assessments and contextual tools, particularly in donor-funded bilingual education programming. Furthermore, the MEN has demonstrated a strong use of evidence to guide bilingual curriculum development, attempts to revise teacher deployment policies, and scale up teacher PD initiatives. Despite a strong commitment to evidence use and significant improvements over the last 20 years, the system faces some ongoing challenges related to limited harmonization and scaling, local capacity constraints, and a residual focus on French in national, systemwide assessments. The MEN recognizes these challenges and is working to align its data systems through the MOHEBS reform. Based on this evidence, we would characterize Senegal’s level of progression for M&E related to multilingual education as being at the **Developing** stage, according to Figure 26.

Figure 26. Progression criteria for M&E

Absent	Emerging	Developing	Established	Institutionalized
No systems are in place to monitor student learning or assess LoI-related practices.	Some basic monitoring of outputs occurs (e.g., enrollment, textbook distribution) but not of student learning outcomes.	Student learning outcomes are tracked but not yet used to refine or inform LoI strategies.	Outcomes are continuously monitored; early evidence of what works is used to adjust approaches.	Robust systems track learning outcomes, assess the impact of LoI policies, and inform iterative policy adaptation.

Senegal Blueprint

In this section, we draw on the BUILD framework and all the data and information analyzed and presented in this report to present four high priority and urgent actions (empirically, politically, and practically) for integration of language to improve FLN outcomes (in Senegalese languages and French) for children across the country. Following this, we present, tier by tier, evidence-backed actions to form a blueprint that can be utilized by national and regional stakeholders to develop an Lol-integrated roadmap for Senegal. The recommendations are rated in terms of political feasibility, likelihood of impact in the near versus long term, and likelihood of sustainability and costliness, based on the available evidence. These actions will need implementation studies, rigorous impact research, and cost-effectiveness studies to continue to be refined.

Top Priority Actions for Lol Integration into FLN Improvement

Language Mismatch Alignment: This point has emerged as high priority across evidence tiers and stakeholders. Across the nation, there are serious mismatches between student language skills, teacher language skills, and Lol policies and practices. This requires several recommended actions including:

- Tracking **student language skills** (through rigorous bilingually appropriate testing that doesn't only rely on the Lol as de facto language of the test) – and using that data for *language-sensitive structured pedagogy and bilingual literacy remediation*.
- Tracking **teacher language proficiency** on three main dimensions – 1) teachers' own linguistic skills in the languages they are expected to teach, 2) teachers' ability to teach Senegalese languages and French transition (linguistically focused pedagogical abilities), and Lol practices in the classrooms (degree of codeswitching, linguistic management strategies etc.). These data are then expected to be used for actions on the development of teacher specific in-service and pre-service modules on topics such as translanguaging, transfer of first language reading abilities, French oral language improvement, understanding phonics in the Senegalese language, working with mixed language classrooms etc.
- Tracking **Lol** policies and teacher learning materials. It is important to have data on the school's official Lol and the language of the materials to triangulate with the data points above.

This Lol match triangle will allow for clear information on points and degree of mismatch on the key domains in which language impacts learning outcomes. In turn, this will enable us to

develop a set of teaching and TLM development pathways specific to the school and its mismatch coordinates.

Serious Integration of French Transition and Full Bilingualism Across the Curriculum. While the country has made immense leaps in the design of Senegalese language foundational learning, there is still very little scientifically backed and practically oriented focus on transitioning to French LoI by upper primary grades. This requires a thorough understanding of transitioning including timing, teaching, and testing. **For timing**, the curriculum needs to be adapted to better understand precisely when to introduce oral French, when to introduce written/decoding skills in French, when to introduce subject matter in French, and when to fully transition to French as a medium of instruction. This should then be aligned with a better sense of **teaching French** to each of these levels. For teaching oral French first, there needs to be an inundation of French oral language to students who receive minimum French language exposure in their environments. While training teachers to provide this kind of input is helpful, it cannot be sufficient for what Senegalese students need. Artificial intelligence-driven videos and audio input through radio, Bluetooth devices, teacher what's apps etc. provide significant potential here. For **testing**, all assessments (classroom formative tests and more M&E tests) would be most effective if aligned with this level of bilingualism across the curriculum. For instance, this would include testing of transferable skills, oral language skills across languages, language-specific phonological awareness and orthographic knowledge etc.

Teacher PD and Ongoing Support for Implementation of MOHEBS. One clear issue that was apparent across the tiers is that teachers need much more targeted and *ongoing support for the implementation of the MOHEBS*. While MOHEBS is a very scientifically grounded method on paper, teachers need continuous support on the implementation of the policy. Targeted PD modules on supporting understanding of MOHEBS implementation especially in terms of the specifics of teaching Senegalese languages, and then transitioning to French, better use of formative assessment data for classroom teaching, language-specific structured pedagogy, understanding classroom management for mixed ability classrooms, understanding use of translanguaging and Senegalese language in teaching French, better utilization of bilingual resources for teaching foundational numeracy are key areas of support for teachers. Constant coaching through WhatsApp videos and use of AI to support teachers on a regular basis with implementation of a complex bilingual curriculum is being conducted and showing promise in the FLIP program with support from GPE-KIX.

Better M&E Systems and Research Priorities. Building on the blueprint, we propose a 3-phase, 5-year research and technical assistance agenda (2026-2030) in Senegal at an indicative cost of USD 4-6 million. In Phase 1 (first 2 years), we propose conducting rigorous longitudinal and

mixed-methods studies to refine explicit bilingual FLN targets (e.g., L1 decoding thresholds, oral French vocabulary thresholds, and words-correct-per-minute benchmarks by language and grade) and generate evidence on the effectiveness of MOHEBS transition models. The work should include supporting MEN to embed these targets and indicators in PAQUET-EF, LPGS, and LPSP revisions (costing approximately USD 2m). In parallel, a technical team should co-design and prototype a high-set-up-cost but scalable Bilingual Education Early-Warning Model using PASEC, SNERS, Jàngandoo and MOHEBS data, with dashboards that flag schools and regions off-track on bilingual FLN outcomes and provide decision rules for coaching, remediation, and resource allocation (costing approximately USD 1.5m). In Phase 2 (Years 2-4), research would deepen into classroom-level transfer thresholds across key language pairs (e.g., Wolof-French, Pulaar-French), using cohort tracking and econometric models (SEM, GAM) to determine when L1 decoding and oral language skills are sufficient to safely accelerate French decoding and French-medium instruction. These research priorities will be augmented with technical assistance to support curriculum/TLM revisions to make bilingual progression and transfer explicit and embed contrastive phonics and translanguaging modules into pre-service and in-service teacher development. In Phase 3 (Years 4-5), the focus would shift to institutionalization and scale: building a bilingual research database and hub, training inspectors, regional offices and teachers to routinely use EGRA/EGMA, MOHEBS and classroom assessment data to level learners and plan “language-sensitive pedagogy,” and aligning coaching and deployment policies with language mapping. These activities are budgeted at roughly \$1.5-2.5 million (USD) but with low marginal costs once the data and M&E infrastructure are in place.

In December 2025, stakeholders convened for the BUILD Senegal co-interpretation workshop to validate and refine priority actions aligned with the BUILD framework. The following table presents the agreed-upon actions and their underlying justifications as discussed during the workshop.

Figure 7. BUILD Senegal co-interpretation workshop actions and justifications

Workshop Proposed Action	Justification
Priority 1: System-Wide Alignment of Language Mismatch	
Evaluate and expand the Track and Trace system by integrating parameters to monitor alignment between TLM language and school language	Operationalizes the monitoring of alignment school LoI, teacher linguistic capacity, and student language profiles
Improve material delivery systems	Addresses logistical difficulties that hinder L1/LoI harmonization in classrooms
Develop differentiated pedagogical strategies for linguistic minorities	Directly targets student/LoI mismatch through inclusive approaches
Evaluate and improve national language mapping processes	Provides reliable multilingual data to align teacher assignments and practices
Consider recommendations from sociolinguistic surveys	Provide contextual evidence on real uses of languages
Review teacher national mobility policy	Aligns teacher deployment with language needs
Integrate bilingual modules into initial teacher training	Strengthens teachers’ bilingual skills
Strengthen/popularize e-learning platform for national languages	Creates continuous PD channel

Leverage AI to strengthen reading/writing in national languages	Bridges linguistic and pedagogical gaps
Priority 2: Full Integration of French Transition	
Ensure follow-up on integrating bilingual options in MOHEBS	Institutionalizes L1→L2 transition
Develop research for MOHEBS extension	Strengthens evidence base
Intensify capacity building in didactics/language	Ensures quality implementation
Priority 3: Teacher Professional Development	
Hold training sessions on time	Prepares teachers
Ensure timely financial resources & TLM delivery	Prevents operational gaps
Systematize SFMO tool use	Supports data-driven PD
Strengthen digital technology and AI use	Amplifies coaching/monitoring
4. Better Bilingually Designed M&E Systems	
Conduct bilingual proficiency assessments	Aligns evaluation with FLN goals
Ensure reliable, disaggregated language data	Supports analysis of disparities
Develop information system to detect progress/challenges	Supports adaptive pedagogy/policy

In the following sections, we discuss several further key priority actions in more detail.

Tier 1: FLN Goals and Policy

Over the past decade, Senegal has prioritized foundational learning, aiming for all children to achieve basic literacy by the end of early primary school. Policies such as PAQUET-EF, LPGS, LPSD, and PNLSE, along with USAID programs like LPT and RELIT, World Bank support, Gates Foundation support, and ARED’s work set ambitious goals for reading and math, promote bilingual education, and strengthen teacher training. MOHEBS provides a structured, evidence-based approach to biliteracy, starting in national languages and transitioning to French, but scaling remains challenging largely due to organizational capacity, human resources, infrastructure, and funding constraints. While MOHEBS offers a structured, evidence-based pathway for biliteracy acquisition starting in national languages and transitioning to French, it remains vulnerable to scaling efforts due to several constraints, many of which are related to funding (post USAID), and questions of government prioritization for scale and sustainability. The following are suggested actions can support a roadmap for scaling and institutionalizing bilingual education in Senegal.

Adopting a Clear National Legal Framework on the LoI. The development of a legally codified decree or framework that makes education in a known or familiar (dominant) language a right to a child is a high priority policy recommendation. This will provide a legal framework for Senegalese national language based- multilingual education. If such a framework is systematically integrated into sectoral plans, it can provide schools and teachers with clear guidance on language instruction and support nationwide implementation of bilingual education principles, despite possible political and other policy shifts.

This action is likely low cost, politically challenging, but likely to have a long-term sustainable impact.

Include Explicit Bilingual Education Targets. Key national education frameworks such as PAQUET-EF, LPGS, and LPSD should be revised to include explicit targets for reading, writing, and mathematics by grade level, while national indicators are updated to capture mastery in national language and French foundational literacy targets. These targets – to be determined in discussion with key stakeholders and further research in studies such as Gates Foundation’s Bilingual Boost initiative – would include the following critical targets for bilingual foundational learning:

- Number of decoding words required for L1 transfer before introducing decoding skills in French
- Number of oral vocabulary items/oral language skills in French needed before introducing French decoding, French math instruction, and French as a medium of instruction
- Number of correct words per min per language (type) for reading comprehension

Aligning sectoral policies with foundational learning objectives will allow for more effective monitoring of student progression in both languages and support the scaling of bilingual education initiatives.

This action is medium cost to ensure scientifically grounded targets, politically challenging to accept targets across the board, but likely to be very sustainable.

Ensuring Sufficient Funding for MOHEBS is included in the government budget. It will be very difficult to ensure that MOHEBS is implemented with fidelity, in line with evidence, and ensuring children are learning unless there is dedicated funding for these precise components of MOHEBS. Over the long term, this investment can allow for updates to the policy as needed in line with emerging evidence on fidelity of implementation, and on the transition to French, and ensure access to higher education in French and Senegalese languages, and ultimate socioeconomic mobility of children and national growth.

This recommendation is medium to high cost, politically feasible with strong stakeholder engagement, and highly sustainable once embedded in the national education budget, ensuring that MOHEBS continues to evolve and support long-term bilingual foundational learning outcomes.

Updating Policies with Rigorous Research. There is a need for integrating rigorous evidence into continuously improving the program’s design and implementation. Longitudinal, mixed methods studies are needed to evaluate the effectiveness of bilingual models such as MOHEBS and PNLSE. Generating robust evidence on multilingual education transition strategies and

bilingual education outcomes will guide policy adjustments and inform decision-making at both policy and school levels, improving learning outcomes in both national languages and French.

This recommendation is medium to high cost over time, likely to be politically feasible, and a critical way to keep honing MOHEBS and government investments into inputs that are likely to yield the highest impact and lowest costs for integrating LoI policies into FLN improvement.

Tier 2: Evidence and Data

Develop Key Indicators for Implementation of Fidelity of Bilingual Education. There is a critical need for a robust set of indicators with data collected from within and external to the system on how the current MOHEBS policies are being implemented. This would include the degree to which the languages that are meant to be used are being used in the classroom, to what extent code switching and translanguaging is already occurring and what language classroom management strategies are being deployed when the LoI does not match the language of the teachers and/or the students, to what extent teachers are proficient in the Senegalese language (linguistic skills) they are expected to teach, are proficient in teaching (pedagogical skills) the language they are expected to teach, and are proficient in French, and proficient in teaching the transition to French.

Develop a Bilingual Education Early-Warning System or Prediction Model. To make Senegal's M&E system predictive rather than descriptive, it is possible to develop a *Foundational Learning Early-Warning Model (FLEWM)* that forecasts students' progression through key reading and comprehension benchmarks from CP to CM2, particularly with a multilingual education lens. Using historical data from PASEC, SNERS, Jàngandoo, and MOHEBS assessments, the model would estimate the probability of students crossing minimum proficiency thresholds by grade and language, incorporating predictors such as teacher presence, LoI fidelity, language transfer thresholds, orthographic features, and language match. Dashboards could visualize risk flags for regions or schools unlikely to reach key targets, prompting timely interventions such as coaching, remedial programming, or material redistribution.

While this is a high setup cost recommendation, it is likely to offset costs using the datasets and analyses that have been developed for this blueprint and can also be offset with the use of modern AI and technology tools. It is likely to be politically feasible and yield long term effectiveness of multilingual education.

Conduct further research to design classroom level interventions for determining readiness levels for transferring skills between languages. Moving beyond remediation for just skills required for learning to read one language, conduct research that helps develop tools for biliteracy and multilingual acquisition. This will include better understanding of the oral vocabulary size and other oral language proficiency needed in French before transition can

occur. This will also include testing transfer “thresholds” across languages. Specifically, it is recommended to test the hypothesis that once children reach a threshold in learning to decode (sound out and read with fluency) a Senegalese familiar language, acquisition of French reading accelerates exponentially. By tracking cohorts each term across three dominant language pairs with large instructional footprints (jointly measuring Senegalese language decoding, Senegalese language oral language, French oral language, and French decoding and comprehension) and utilizing structural equation models (SEM) and generalized additive models (GAM) it would be possible to detect non-linear transfer points. These data can be analyzed with covariates for teacher-student language match, exposure to bilingual materials, and classroom time allocation between Senegalese languages and French. We also recommend that the government draw on other research on vocabulary size tests and oral language needs for development of French reading comprehension that is being conducted in other parts of Africa, such as in South Africa. The results would generate empirically grounded, language-pair-specific thresholds that could inform when to intensify oral French instruction or when to delay or accelerate the transition from national language to French as the primary LoI under PAQUET and MOHEBS implementation frameworks.

In addition, to optimize the pacing and sequencing of language transition in early primary, conduct empirical studies that compare *types* and *dosages* of transition, both by subject (e.g., shifting mathematics or reading first) and by duration (e.g., gradual versus rapid exposure to French). These studies should experimentally or quasi-experimentally vary the amount of instructional time spent in Senegalese language versus French across grades 1-4, while tracking cohorts’ performance in decoding, fluency, and comprehension across both languages. Analyses using hierarchical growth models or event-history frameworks can estimate how different exposure trajectories affect the timing and depth of transfer to French literacy, controlling for classroom quality, teacher language match, and orthographic transparency. Special attention should be given to “dosage thresholds”, i.e., the minimum number of hours or terms of sustained L1 instruction needed before an effective French transition, building on insights from Lecture Pour Tous and ARED-implemented Ndaw Wune remedial bilingual models. The resulting evidence would help define context-specific transition profiles (e.g., *subject-first* vs. *time-intensity* models) that balance linguistic equity with accelerated attainment of national FLN targets. A pipeline of action-oriented evaluations, similar to the ongoing effort to assess the impact of MOHEBS, should be on the agenda for the education stakeholders, including the government and civil society.

Such bilingual transfer specific research could be leveraged from other data sources to be cost-efficient and will be powerful for fine tuning a bilingual education model (in all tiers) through the coming years of implementation of MOHEBS.

Strengthen Bilingual Teacher Preparation and Language-Responsive Structured Pedagogy.

To enhance the quality of bilingual instruction, Senegal could establish a *Bilingual Pedagogical Core (BPC)* within national teacher-training institutions focused on better understanding the SoBR, orthographic and linguistic aspects of learning to read across languages, and cross-linguistic transfer – all to support the already existing MOHEBS bigrammar, which is designed to systematically cross-analyze grammatical features across two languages (with a focus on “contrastive analysis: vis-à-vis facilitative cross-linguistic resource sharing) Given the high transparency of national languages such as Wolof, Pulaar, and Seereer, teachers should be equipped to contrast orthographic features explicitly when transitioning from national language to French literacy. This would involve developing “contrastive phonics” modules, a deeper understanding of facilitative transfer and transition, integrating bilingual hands-on teaching experiences in teacher colleges, and institutionalizing refresher courses on orthographic considerations and constraints to reduce regional inconsistencies. The BPC could collaborate with ARED, CRFPEs, and the *Institut National d’Étude et d’Action pour le Développement de l’Éducation* (INEADE) to ensure pedagogical coherence across MOHEBS and other national initiatives.

This is likely to be politically appealing for stakeholder ownership and can be part of the costs of other research activities. This will likely lead to strong evidence bases for designing a bilingual program that is cost-effective as this kind of research is vital for deciding priorities factors for a specifically *language-responsive structured pedagogy system*.

Tier 3: Teaching and Learning

Senegal’s bilingual education reform is at a critical juncture, with the MOHEBS curriculum providing a structured pathway for foundational literacy. The teaching and learning tier, covering curriculum, materials, teacher development, and community engagement, is central to implementation and ultimate success of these curriculum reforms.

Curriculum and TLMs

Ensure teachers understand how teaching multilingual children is different than monolingual, with enough strategies to teach a multilingual curriculum. The MOHEBS curriculum demonstrates strong alignment with the science of reading, covering many of the core skills in the SoBR and introducing them sequentially in the curriculum. For example, the curriculum begins in CI with a focus on language comprehension skills in L1 and French but only focuses on word recognition skills in L1. Word recognition skills in French are only introduced progressively in CP to leverage L1 skills for French literacy. Still, the curriculum lacks a clear explanation of how transfer and progression of skills happen in bilingual literacy acquisition. In addition, the presentation of the five skills as they currently appear could digress from the bilingual science

of reading in some ways. For example, a single category of comprehension when oral comprehension would come before the overall goal of reading comprehension could be misleading. To truly support bilingual education, the curriculum must be designed from the earliest stages with bilingualism at its core. This begins with the understanding that children learn best in languages they know well (are dominant in) and then progress to a new language in a systematic and cognitive science backed way. While MOHEBS already embraces this principle, further progress requires a deliberate approach to transitioning into French alongside the acquisition of national languages. This means designing a curriculum that considers transfer and bilingualism at all levels of the curriculum (learning to read a new language, learning academic subjects in a new language, switching to a new medium of instruction entirely).

Systematize support for teachers teach in pace with both the student’s level and the curriculum. The MOHEBS curriculum is highly scripted to facilitate teachers’ implementation, leaving little room to adjust to the level of students in the classroom. Current data shows students’ learning pace is slower than the curriculum progression, with many students late in CP still struggling with word-level decoding with very low scores in reading comprehension in both the national language and in French. While the current MOHEBS, and government-integrated programs like ARED’s Ndaw Wune remedial program and AIR’s work through GPE KIX aim to provide more tailoring to the curriculum, systematic support is just being planned for and rolled out nationally. Preliminary results from the impact evaluation of the pilot of *Ndaw Wune Année Scolaire* suggest that is an overall effective program for improving student foundational literacy scores in national languages in Grades 2-3 in Senegal. Monitoring data from AIR’s ongoing FLIP teacher training program in Fatick suggests that it is effective in improving teachers’ knowledge and practice of structured pedagogy using a less intensive approach. The language-responsive, structured pedagogy remediation approach for teaching foundational literacy skills in both Senegalese languages and French are also being implemented and showing promising outcomes in the FLIP project supported by KIX GPE – with consistent stakeholder demand for further pre-service and in-service support to teachers. Continuing this effort and providing clear guidance and support for teachers to help students keep pace with the curriculum is essential for students not falling further behind. It will also be key to continue tracking students’ levels across skills in L1 and French to decide if the pacing in the curriculum needs any adjustment such as a delay in the introduction of French word recognition skills to allow students to first master these skills in L1. Many of the tools to do this exist as well as the formative assessments to track progress; leveraging and systematizing those existing materials will be key to keeping this a cost-effective effort.

Supporting overall access to TLMs particularly in L1 and with a focus on transition. Overall, there is still a lack of TLMs nationwide in either language. While MOHEBS has been increasingly able to provide foundational TLMs including the teacher’s manual, student manual, and

pedagogical guide, especially with support from the external funders, additional materials to support a print rich environment are needed particularly in national languages to support students' word recognition skills. While these manuals are available, classrooms themselves are often stark with limited text on the walls such as examples of letters and words visually displayed, supplementary materials to support engagement with print in activities, or books for students to use in class or at home. TLMs must be designed to support cross-linguistic transfer and reflect linguistic and orthographic differences. This includes books and materials that are tailored to the decoding and spelling needs of each language and focus on key challenges students are facing. For French oral language development, a variety of inputs—such as story cards, AI-driven tools, and radio/audio content—should be integrated to provide rich and engaging oral language experiences, in particular exposure to oral French which may be lacking in rural communities

We note that TLMs are always a challenge for budgets, particularly in rural locations. Thinking about central long-term digital archives, long term storage at schools of physical materials, and ways to facilitate collaboration across programs developing materials could be low-cost solutions to facilitating more access.

Support the harmonization, understanding and use of formative assessments. Finally, formative assessment must be tightly linked to structured pedagogy, enabling teachers to adjust instruction based on student literacy levels across languages. The current system of formative assessments is fragmented across suggestions in the pedagogical guide, teacher's manual, and those prescribed at a regional level. This fragmentation is further influenced by low levels of instructional time and very low time-on-task in early grade literacy lessons, where teachers often spend less than half of lesson time on reading instruction.³⁶¹ In such a constrained instructional environment, teachers struggle to regularly administer, interpret, and act on formative assessment data. Ensuring these assessments are being used by teachers and teachers truly understand the significance of the results by skill, especially for bilingual literacy acquisition, is key for their meaningful impact and teaching students at the right level to help them build up their literacy skills. This would ensure that teaching is responsive and targeted, supporting every learner's progress in both their first language and French.

If the above points about a bilingual education research database and hub (aligned with the SoBR and the BUILD tiers) is effectively implemented, and is then aligned with the curriculum and TLMs, then the "use" of the formative assessment data for leveling and structuring "language sensitive pedagogy" is likely to be very minimal additional cost, and will be highly supportive for teachers to know where their students stand, and what to do with that information at a classroom level – all for bilingual literacy acquisition.

Teacher Workforce and Professional Development

Teacher capacity remains inconsistent. Many educators lack proficiency in reading and writing the national languages they are expected to teach, leading to reliance on French earlier than recommended. The report highlights that teacher placement rarely considers language mapping, resulting in mismatches between teacher skills and classroom needs. Teachers should also be trained on systematic differences between national languages and French orthographies. This equips them to teach decoding and spelling effectively.

Teacher PD programs, while robust in theory, often fail to address bilingual pedagogy in practice. For instance, cascade training models have reached thousands of teachers, yet refresher courses on contrastive phonics and translanguaging strategies are limited. Embedding these modules into preservice curricula and linking them to classroom coaching would strengthen instructional quality.

Community Engagement

Parental skepticism about bilingual education persists, fueled by fears that learning in national languages will delay French acquisition. The report cites successful community sensitization campaigns in regions implementing MOHEBS, where parents were shown evidence of improved reading outcomes in both languages. Scaling such initiatives, through a range of communications strategies including radio programs, school open days, and literacy competitions, can reinforce confidence and encourage home support for bilingual learning.

Tier 4: Monitoring and Evaluation

Despite the significant progress described in the previous sections, Senegal's M&E system faces several persistent challenges: limited system harmonization, insufficient local capacity to utilize data, and the predominance of French in national assessments. These constraints limit the full use of data to guide pedagogical interventions and scale up bilingual initiatives. To overcome these challenges, it is essential to develop a more coherent and sustainable national M&E framework, anchored in national policies, to ensure consistency, accountability, and continuous improvement in foundational learning and bilingual education.

Strengthening FLN Assessment Systems. A national FLN assessment framework should be established to track progress in both L1 and L2. Standardized assessments across schools and regions will enable timely monitoring and analysis of foundational learning outcomes, informing interventions, teacher coaching, and resource allocation. This ensures that all students have equitable opportunities to achieve FLN mastery in both languages.

Institutionalizing a National FLN M&E Framework. We recommend developing a logic framework and theory of change specific to FLN and language policy, to ensure that actions and indicators accurately measure mastery of foundational skills and adherence to the LoI. Existing M&E approaches should be harmonized across the MEN, the *Directorate of Planning and Educational Resources* (DPRE), the *General Inspectorate of Education* (IGE), and the IA/IEF, ensuring that all collected data are comparable and actionable. Standardized indicators should be created to simultaneously measure learning outcomes in L1 and French, reflecting both student progression and the implementation of bilingual programs such as MOHEBS and PNLSE.

Strengthening Local Capacity to Use Data. Training local actors—teachers, inspectors, and regional education offices—on using data to guide pedagogical interventions and quickly identify gaps. Practical tools should be developed for local-level monitoring and analysis, leveraging existing data from EGRA/EGMA assessments and MOHEBS evaluations, and to support teachers at the classroom level.

Promoting Transparency and Communication of Results. We recommend publishing quarterly dashboards on FLN and LoI performance and disseminating evaluation results and reports at all levels: schools, inspections, regional offices, and partners. This approach will strengthen a culture of accountability, increase visibility of results, and encourage local actors to use data to adjust their practices.

Institutionalizing Language Assessments at All Levels. Systematically integrating national languages into assessments, alongside French, and aligning these assessments with the bilingual curriculum and teacher training. This ensures regular monitoring of learning in both L1 and L2, reduces gaps between policy and classroom practice, and supports the expansion of bilingual programs such as MOHEBS.

Institutionalizing a Biliteracy M&E Infrastructure. To sustain progress FLN goals in bilingual settings, Senegal should institutionalize a biliteracy M&E infrastructure that integrates data on both L1 and L2 literacy trajectories into the national education information system (SIMEN) and sector performance frameworks. This would entail embedding dual-language indicators, covering L1 decoding, oral proficiency, and L2 comprehension, within national assessment cycles such as SNERS and MOHEBS, and ensuring alignment with global benchmarks like SDG 4.1.1b. The infrastructure should connect administrative, classroom, and assessment data, enabling real-time monitoring of biliteracy progress by region and language. INEADE and the DPRE, with technical assistance from AIR, could lead a joint technical working group to standardize biliteracy reporting templates, build regional analytic capacity, and incorporate teacher- and learner-language match indicators into dashboards. Over time, such an integrated biliteracy M&E system would make language-of-instruction fidelity, learning outcomes, and

transition readiness visible at all levels of the system, transforming MOHEBS implementation from programmatic to systemic and ensuring that bilingual education reforms are continuously measured, refined, and scaled based on evidence.

To ensure the biliteracy M&E infrastructure becomes a living tool rather than a top-down reporting mechanism, Senegal could embed *socialization processes* that make data use habitual and rewarding for frontline actors. Regular regional review forums, school cluster workshops, and CRFPE-led trainings can walk inspectors, pedagogical advisors, and teachers through how to interpret dashboard indicators, identify “language alignment” or “threshold risk” flags, and plan remedial actions. Short SMS or WhatsApp nudges, recognition for schools that demonstrate evidence-based improvement, and integration of biliteracy data discussions into routine school supervision cycles would further normalize use. By coupling capacity-building with practical incentives and localized feedback loops, the system becomes an everyday decision-support tool, owned and used by those closest to the classroom.

This is the most expensive recommendation in terms of startup costs, but costs can be minimized by leveraging across systems and by using AI and much more affordable technology options, but likely to be the backbone for longer term impact for scalable and sustainable options for bilingual foundational learning outcomes in Senegal.

Annex A. Consultation Guide

Carte pour l'utilisation des preuves dans les décisions relatives à la langue d'enseignement (BUILD)

Guide de consultation des parties prenantes :
Sénégal

Janvier 2025

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Tables des matières

Guide de consultation BUILD	1
Révision de la politique l'inguistique	1
L'évaluation/cartographie des compétences linguistiques orales multilingues (AMOLAC)....	2
Cartographie orthographique	3
Base de données probantes.....	3
Analyse du programme et de l'évaluation (portée et séquence).....	4
Analyse de l'inventaire des TLM	4
Développement professionnel des enseignants	5
Affectation des enseignants et maîtrise linguistique	6
Harmonisation de la politique de la langue d'instruction (LOI) à la mise en œuvre en classe / Fidélité de la mise en œuvre.....	6

Guide de consultation BUILD

Voici une liste de questions directrices qui peuvent être utilisées avec les décideurs en matière d'éducation, les experts en évaluation, les linguistes ou d'autres parties prenantes clés impliquées dans les décisions nationales relatives à la langue d'enseignement. AIR adaptera ces questions à chaque pays ciblé pour les consultations dans le cadre de l'élaboration des feuilles de route nationales, ainsi qu'à chaque interlocuteur.

Révision de la politique linguistique

À utiliser avec : Toutes les parties prenantes

- Afin de préparer les enfants au Sénégal à vivre et travailler plus tard avec succès, quelle(s) langue(s) pensez-vous qu'il est important qu'ils apprennent pour acquérir des compétences fondamentales en lecture, écriture et calcul ?
 - Quelle(s) langue ou langues sont importantes pour que les enfants réussissent plus tard dans l'enseignement supérieur et sur le marché du travail ?
 - Dans quelle(s) langue ou langues serait-il idéal que les enfants de votre pays soient alphabétisés à la fin du lycée ?
 - Quelles compétences les enfants devraient-ils idéalement acquérir dans les langues locales comme le wolof, le serer, ou le pulaar au Sénégal ?
 - i. Question complémentaire : Ont-ils seulement besoin de parler les langues nationales, sans nécessairement les lire ? Devraient-ils apprendre des compétences fondamentales comme la lecture, l'écriture ou les mathématiques dans ces langues ? Devraient-ils avoir une maîtrise professionnelle de ces langues ? Y a-t-il d'autres compétences à considérer ?
- Quel regard portez-vous sur les compétences françaises et les compétences dans les langues nationales actuelles des enfants/élèves ? Ces compétences des enfants sont-elles en adéquation avec vos attentes ?
- Quelle est votre compréhension des résultats actuels des apprentissages des enfants dans les différentes langues ? Ces résultats des enfants sont-ils en adéquation avec vos attentes ?
- Je sais que la langue d'enseignement actuelle au Sénégal est le français, mais qu'à travers MOHEBS, les élèves commencent à apprendre dans les langues locales dès les premières années, puis passent au français. Que pensez-vous de cette politique ? Quels en sont, selon vous, les points faibles et les points forts ?
 - Aimerez-vous que la politique concernant les langues d'enseignement change d'une manière ou d'une autre ?

- Si oui, comment aimeriez-vous qu'elle évolue ? Si non, pourquoi pas ?
- Selon vous, comment un changement de la politique sur la langue d'enseignement pourrait-il affecter les résultats d'apprentissage fondamentaux ? (Pour le meilleur ou pour le pire ?)
- Pourquoi pensez-vous cela ?
- Quelle est la position du gouvernement sénégalaise concernant l'enseignement bilingue français/ langues nationales ?
 - (En d'autres termes, les décideurs sont-ils favorables à l'introduction des langues sénégalaise dans le système scolaire en tant que langues d'enseignement aux côtés du français ?)
 - Pouvez-vous fournir une brève description et également indiquer si le gouvernement est : (a) Très hostile à l'utilisation de la langue maternelle (L1) et/ou des programmes bilingues, (b) Pas favorable à l'utilisation de L1 et/ou des programmes bilingues, (c) Neutre, (d) Favorable à l'utilisation de L1 et/ou des programmes bilingues, (e) Très favorable
 - La direction dans laquelle le système éducatif évolue, est-il vers plus de langues maternelles/bilinguisme ou vers moins de langues maternelles/bilinguisme ?
 - De quelles façons les intervenants sont-ils en désaccord sur les décisions liées à la langue d'enseignement ? Qui a une opinion différente ?
- En milieu scolaire sénégalaise, le français est-il suffisant pour la médiation des savoirs ? Pourquoi ?
 - Le français est-il suffisant pour les interactions verbales en classe ? Pourquoi ?
- A votre avis, quelles langues sont nécessaires pour suivre convenablement des apprentissages scolaires ? Pourquoi ?
 - Selon vous, doit-on utiliser les langues sénégalaises dans les classes au Sénégal ?
 - Si oui, quelle(s) langue(s) ? et pourquoi ?
- A votre avis, peut-on utiliser les langues sénégalaises dans l'enseignement au Sénégal ?
 - Si oui, comment peut-on faire ?

L'évaluation/cartographie des compétences linguistiques orales multilingues (AMOLAC)

À utiliser avec : Toutes les parties prenantes

- À votre connaissance, quelles sont les données les plus complètes et à jour disponibles sur les résultats d'apprentissage fondamentaux (littératie et numératie de base) des élèves du primaire ?

- Où et comment pourrions-nous accéder à ces renseignements ?
- Savez-vous s'il y a eu des évaluations de lecture à grande échelle dans les langues d'origine des élèves et en français ?
 - Si oui, où ou comment pourrions-nous accéder à ces informations ?
- À votre connaissance, quel type de données est disponible concernant les compétences linguistiques des élèves dans différentes langues, par exemple, à travers des études de cartographie linguistique, des données de recensement ou toute autre source ?
 - Où ou comment pourrions-nous accéder à ces informations ?

Cartographie orthographique

Pour utilisation avec : Les Linguistes

- Pour ce que vous savez, quel type d'information est disponible concernant la « profondeur » (degré de cohérence entre les sons et les symboles) et la « largeur » (combinaisons graphémiques possibles, phonèmes dans chaque syllabe, etc.) des langues utilisées au Sénégal ?
 - Où ou comment pourrions-nous accéder à ces informations ?
- Avez-vous des informations sur la distance phonologique et orthographique entre les langues nationales au Sénégal et le français ?
 - Où et comment pourrions-nous accéder à ces renseignements ?

Base de données probantes

À utiliser avec : Toutes les parties prenantes

- Combien de langue(s) existe-t-il dans le pays ?
- Combien de langue(s) sont réellement utilisées dans les écoles en pratique ? Comment le savez-vous ?
 - Êtes-vous au courant d'études menées sur ce qui fonctionne pour aider les enfants à lire en français au Sénégal ? Si oui, que pouvez-vous m'en dire ?
 - i. Quelles sont les principales conclusions de ces études ?
 - À votre connaissance, quelles évaluations ont été réalisées sur des programmes de lecture spécifiques au Sénégal ? Que pouvez-vous me dire à propos de ces programmes ?
 - i. Quelles sont les caractéristiques principales de ces programmes ?
 - ii. À quelle échelle ces programmes ont-ils été mis en œuvre (par exemple, projet pilote dans certaines écoles, niveau communautaire, niveau provincial, niveau national) ?
 - iii. Qu'est-ce qui a été efficace et qu'est-ce qui ne l'a pas été ?
 - Où et comment pourrions-nous accéder aux résultats de ces études ?

Pour utilisation avec : Les Décideurs

- Comment, le cas échéant, les preuves ont-elles été utilisées pour la prise de décision concernant les langues d'instruction au Sénégal ?
 - Pouvez-vous donner des exemples ?
- Quels sont les 2-3 principaux obstacles à l'utilisation des preuves pour la prise de décision politique concernant les langues d'instruction ?
 - Quelle preuve aimeriez-vous avoir ?

Analyse du programme et de l'évaluation (portée et séquence)

Pour utilisation avec : Les éducateurs à tous les niveaux, experts en programmes d'études

- Existe-t-il des programmes de lecture différents pour différentes langues ?
 - Par exemple, les étapes, la portée et l'ordre, ainsi que les objectifs de compétence en lecture et en compétences linguistiques sont-ils différents pour différentes langues ? Si oui, comment ?
- Comment la langue d'enseignement est-elle intégrée dans le programme pour enseigner la lecture ?
- Quand et comment l'introduction à l'enseignement d'une nouvelle langue / l'enseignement dans une nouvelle langue comme langue d'instruction (LOI) est-elle effectuée (le cas échéant) ?

Analyse de l'inventaire des TLM

Pour utilisation avec : Les décideurs politiques, bureaucrates, éducateurs à tous les niveaux, experts en matière de programmes d'études

- Quels matériels d'enseignement et d'apprentissage (par exemple, guides pour les enseignants, manuels pour les élèves, matériels supplémentaires) sont actuellement fournis aux écoles ?
 - Des matériels d'enseignement et d'apprentissage basés sur la technologie sont-ils disponibles pour les enseignants ou les élèves ? Si oui, veuillez les décrire.
 - Dans quelle(s) langue(s) sont les matériels ?

Y a-t-il suffisamment de matériel en français et en langues sénégalaises pour toutes les écoles et tous les enfants ? Pouvez-vous nous en dire plus à ce sujet ?

Comment évaluez-vous la qualité des matériaux fournis ?

- Quand les matériels actuels d'enseignement et d'apprentissage ont-ils été mis à jour pour la dernière fois ?
- En général, à quelle fréquence sont-ils mis à jour ou sont-ils mis à jour de façon ponctuelle ?
- Quel est le processus de développement des supports d'enseignement et d'apprentissage ?

Développement professionnel des enseignants

Pour utilisation avec : Les éducateurs à tous les niveaux, bureaucrates, décideurs

- Je sais que la formation initiale et la formation continues des enseignants sont dispensées en français. À votre avis, dans quelle mesure est-il efficace de dispenser une formation dans cette langue ?
- Il y a plusieurs problématiques pédagogiques qui nous intéressent et pour chacune, nous aimerions savoir : a) quel type de soutien est disponible, b) quelles méthodes sont enseignées aux enseignants pour gérer ces problématiques, c) dans quelle mesure les enseignants mettent en œuvre ces méthodes, d) à quel point ces méthodes sont utiles.
- Quel soutien, le cas échéant, les enseignants reçoivent-ils pour enseigner dans des classes multilingues où les enfants utilisent et comprennent différentes langues ? (Si nécessaire, précisez que le soutien peut inclure des formations, du mentorat, des guides pratiques, etc.)
 - Quelles méthodes sont mises à disposition des enseignants pour l'enseignement dans les classes multilingues ?
 - Dans quelle mesure pensez-vous que les enseignants mettent en œuvre ces méthodes ?
 - Dans quelle mesure trouvez-vous ces méthodes et le soutien fourni utiles ?
- Quel soutien, s'il y en a, les enseignants reçoivent-ils pour passer des langues nationales d'enseignement dans les premières années à un enseignement ultérieur en français ?
 - Quelles méthodes les enseignants proposent-ils pour les transitions linguistiques ?
 - Dans quelle mesure pensez-vous que les enseignants mettent en œuvre ces méthodes ?
 - Dans quelle mesure trouvez-vous ces méthodes et le soutien fourni utiles ?
- Quel soutien, s'il y en a, les enseignants reçoivent-ils pour transférer les compétences de lecture des enfants d'une langue à une deuxième langue comme français ?
 - Quelles méthodes les enseignants mettent-ils à disposition pour enseigner la lecture en plusieurs langues ?
 - Dans quelle mesure pensez-vous que les enseignants mettent en œuvre ces méthodes ?
 - Dans quelle mesure trouvez-vous ces méthodes et le soutien fourni utiles ?
- Quel soutien, le cas échéant, est fourni aux enseignants pour aider les élèves avec des concepts qu'ils ont du mal à comprendre ?
 - Quelles méthodes sont enseignées aux enseignants pour la remédiation ?
 - Comment les enseignants mettent-ils en œuvre ces méthodes ?
 - Dans quelle mesure trouvez-vous ces méthodes et le soutien fourni utiles ?

- Selon vous, quelles sont les lacunes dans la formation et le soutien aux enseignants ?

Affectation des enseignants et maîtrise linguistique

Pour utilisation avec : Les décideurs, bureaucrates, éducateurs à tous les niveaux

- Quelles données, le cas échéant, sont disponibles sur les compétences linguistiques des enseignants ?
 - Où et comment pourrions-nous accéder à ces informations ?
- Quelles données, le cas échéant, sont disponibles sur les compétences pédagogiques des enseignants ?
 - Où et comment pourrions-nous accéder à ces informations ?
- Quelles données, le cas échéant, sont disponibles sur les compétences pédagogiques des enseignants spécifiquement pour les contextes bilingues/multilingues ?
 - Où et comment pourrions-nous accéder à ces informations ?
- Dans quelle mesure les pratiques actuelles d'affectation des enseignants tiennent-elles compte des compétences linguistiques des enseignants avant de les affecter aux écoles ?
- Dans quelle mesure les administrateurs prennent-ils en compte les forces et les faiblesses des enseignants avant de les affecter à des écoles ou des classes spécifiques ?

Harmonisation de la politique de la langue d'instruction (LOI) à la mise en œuvre en classe / Fidélité de la mise en œuvre

Pour utilisation avec : Les décideurs, bureaucrates, éducateurs à tous les niveaux

- Dans quelle mesure pensez-vous que les politiques de langue d'instruction sont mises en œuvre en classe ? Par exemple, est-ce que le français est utilisé comme langue principale d'instruction de la même manière et au même moment que ce que spécifie la politique officielle ?
 - Comment la pratique en classe diffère-t-elle de la politique officielle ?
 - Pourquoi la pratique en classe diffère-t-elle de la politique officielle ? (Qu'est-ce qui rend le respect de la politique difficile ?)
 - À votre avis, que devrait-on faire pour s'assurer que la pratique en classe est conforme à la politique sur les langues officielles ?
 - À votre avis, que devrait-on faire pour s'assurer que la pratique en classe est conforme à la politique sur les langues officielles ?

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Endnotes

¹ Michelle Kaffenberger, Sarah Melville, and Madhuri Agarwal, *The Benefits of Foundational Learning to Individuals and Society: A Review of the Evidence*, Synthesis Brief 2025/003 (What Works Hub for Global Education, May 2025), <https://www.wwhge.org/resources/the-benefits-of-foundational-learning-to-individuals-and-society-a-review-of-the-evidence/>.

² "70% of 10-Year-Olds Now in Learning Poverty, Unable to Read and Understand a Simple Text," World Bank Group, last modified June 23, 2022, <https://www.worldbank.org/en/news/press-release/2022/06/23/70-of-10-year-olds-now-in-learning-poverty-unable-to-read-and-understand-a-simple-text>.

³ World Bank Group, *Loud and Clear: Effective Language of Instruction Policies for Learning* (Washington, DC: World Bank, 2021).

⁴ Pooja Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems in Francophone Africa: Final Report* (Arlington, VA: American Institutes for Research, 2024). <https://www.air.org/sites/default/files/2024-05/KIX-Strengthening-Bilingual-Multilingual-Education-Systems-Final%20Report-May-2024.pdf>.

⁵ Virginia P. Collier and Wayne P. Thomas, "Validating the Power of Bilingual Schooling: Thirty-Two Years of Large-Scale, Longitudinal Research," *Annual Review of Applied Linguistics* 37 (2017): 203–17.

⁶ Wesley A. Hoover and William E. Tunmer, *The Cognitive Foundations of Reading and Its Acquisition* (Berlin: Springer International Publishing, 2020).

⁷ Sonali Nag et al., "Home Language, School Language and Children's Literacy Attainments: A Systematic Review of Evidence from Low- and Middle-Income Countries," *Review of Education* 7, no. 1 (2019): 91–150.

⁸ Pooja R. Nakamura, Thomas de Hoop, and Chinmaya Holla, "Language and the Learning Crisis: Evidence of Transfer Threshold Mechanisms in Multilingual Reading in South India," *The Journal of Development Studies* 55, no. 11 (2018): 2287–2305.

⁹ Diane August, Timothy Shanahan, and Kathy Escamilla, "English Language Learners: Developing Literacy in Second-Language Learners—Report of the National Literacy Panel on Language-Minority Children and Youth," *Journal of Literacy Research* 41, no. 4 (2009): 432–52.

¹⁰ Sonali Nag et al., "Home Language," 91–151.

¹¹ Christopher Stroud and Kathleen Heugh, "Language Rights and Linguistic Citizenship," in *Language Rights and Language Survival*, ed. J. Freeland and D. Patrick (Manchester: St. Jerome Publishing, 2004), 191–218.

¹² Kathleen Heugh, "Theory and Practice—Language Education Models in Africa: Research, Design, Decision-Making and Outcomes," in *Optimising Learning, Education and Publishing in Africa: The Language Factor*, ed. A. Ouane and C. Glanz (Hamburg: UNESCO, 2012), 105–56.

¹³ Mehtabul Azam, Aimee Chin, and Nishith Prakash, "The Returns to English-Language Skills in India," *Economic Development and Cultural Change* 61, no. 2 (2013): 335–67.

¹⁴ Casale, Daniela, and Dorrit Posel. "English Language Proficiency and Earnings in a Developing Country: The Case of South Africa." *The Journal of Socio-Economics* 40, no. 4 (2011): 385–393. <https://doi.org/10.1016/j.socec.2011.04.009>.

¹⁵ "THE ECONOMICS OF ENGLISH PROFICIENCY IN GLOBAL LABOR MARKETS: A SYSTEMATICS REVIEW ". 2025. *Proceedings Law, Accounting, Business, Economics and Language* 2 (1): 334-40. <https://www.ojs.udb.ac.id/label/article/view/5266>.

¹⁶ For example, "straight for" models that teach only the post-colonial language, early and late exit models, models that transition via subjects, models that transition via time on task for each language, and additive bilingual/multilingual models.

¹⁷ Kaffenberger et al., *The Benefits of Foundational Learning*.

¹⁸ Barbara Trudell, *What Would It Take? Sustained Implementation of Language of Instruction Policy in Sub-Saharan Africa*, Background Paper for the UNESCO Global Education Monitoring Report (February 2025).

¹⁹ Benjamin Piper et al., "Identifying the Essential Ingredients to Literacy and Numeracy Improvement: Teacher Professional Development and Coaching, Student Textbooks, and Structured Teachers' Guides," *World Development* 106 (2018): 324–336, <https://doi.org/10.1016/j.worlddev.2018.01.018>.

²⁰ Ibid.

²¹ Yang Dong et al., "The Effects of Home Literacy Environment on Children's Reading Comprehension Development: A Meta-analysis," *Educational Sciences: Theory and Practice* 20, no. 2 (2020): 63–82.

²² Candace Debnam, *The Relationship Between Literacy Outcomes & Social-Contextual Variables for Students in Low and Middle Income Countries* (MSc diss., University of Oxford, 2022).

²³ Stephanie Simmons Zuilkowski et al., "Relationships Among Home Literacy Behaviors, Materials, Socioeconomic Status, and Early Literacy Outcomes Across 14 Low-and Middle-Income Countries," *Journal of Cross-Cultural Psychology* 50, no. 4 (2019): 539–555.

²⁴ Nag et al., "Home Language," 91–151.

- ²⁵ Sonali Nag et al., “Home Learning Environments and Children’s Language and Literacy Skills: A Meta-Analytic Review of Studies Conducted in Low- and Middle-Income Countries,” *Psychological Bulletin* 150, no. 2 (2024):132-153.
- ²⁶ Charles A. Perfetti, “The Universal Grammar of Reading,” *Scientific Studies of Reading* 7 (2003): 3–24.
- ²⁷ Hoover and Tunmer, *The Cognitive Foundations of Reading*.
- ²⁸ Kate Cain, Jane Oakhill, and Peter Bryant, “Phonological Skills and Comprehension Failure: A Comparison of Phonological-Decoding-Skill-Matched Poor Comprehenders and Poor Decoders,” *Reading and Writing* 14, no. 5–6 (2001): 489–522, <https://doi.org/10.1023/A:1011115112306>.
- ²⁹ Wesley A. Hoover and Philip B. Gough, “The Simple View of Reading,” *Reading and Writing: An Interdisciplinary Journal* 2, no. 2 (1990): 127–160.
- ³⁰ Hoover and Tunmer, *The Cognitive Foundations of Reading*.
- ³¹ Perfetti, “The Universal Grammar of Reading.”
- ³² Keiko Koda and Annette M. Zehler, eds., *Learning to Read Across Languages: Cross-Linguistic Relationships in First- and Second-Language Literacy Development* (New York: Routledge, 2008).
- ³³ Sheila Cira Chung, Xi Chen, and Esther Geva, “Deconstructing and Reconstructing Cross-Language Transfer in Bilingual Reading Development: An Interactive Framework,” *Journal of Neurolinguistics* 50 (2019): 149–61.
- ³⁴ Nakamura, de Hoop, and Holla, “Language and the Learning Crisis.”
- ³⁵ Pooja Nakamura et al., *Language Transition Study Report*, USAID Reading for Ethiopia’s Achievement Developed Monitoring and Evaluation (READ M&E) (Washington, DC: USAID/Ethiopia, September 2019), https://pdf.usaid.gov/pdf_docs/Pdabr712.pdf.
- ³⁶ Pierre Baligue Diouf, “Innovations Pédagogiques pour l’Intégration des Langues Nationales Africaines dans l’Éducation: Quel État des Lieux au Sénégal,” *ANADISS: Revista Centrului de Cercetare Analiza Discursului = Revue du Centre de Recherche Analyse du Discours = Journal of the Discourse Analysis Research Center* (2019), <https://hal.science/hal-03640374>.
- ³⁷ Daouda Ndiaye, “L’Enseignement des Langues Nationales à l’École Primaire: Le Cas du Wolof au Sénégal” (PhD diss., Université Paris 8 Vincennes–Saint-Denis / Université Cheikh Anta Diop de Dakar, 2008).
- ³⁸ République du Sénégal MEN, *Programme d’Amélioration de la Qualité, de l’Équité et de la Transparence –Éducation / Formation (PAQUET – EF) 2018 -2030* (Dakar: MEN, Novembre 2018).
- ³⁹ République du Sénégal MEN, *Lettre de Politique Sectorielle de Développement (LPSD) 2025–2029* (Dakar: MEN, 2025).

⁴⁰ République du Sénégal MEN, *Lettre de Politique Générale pour le Secteur de l'Éducation et de la Formation (LPGS-EF), 2018–2030 Version Finale* (Dakar: MEN, 2018).

⁴¹ République du Sénégal MEN, *PAQUET – EF 2018 -2030*.

⁴² République du Sénégal MEN Direction de l'Enseignement Élémentaire (DEE), *Programme National de Lecture Scolaire à l'Elémentaire (PNLSE)* (Dakar: MEN, 2021).

⁴³ Ibid.

⁴⁴ République du Sénégal MEN, *PAQUET – EF 2018 -2030*, 43.

⁴⁵ République du Sénégal MEN, *LPSD 2025–2029*.

⁴⁶ Ibid.

⁴⁷ République du Sénégal, *LPGS-EF*.

⁴⁸ République du Sénégal MEN DEE, *PNLSE*.

⁴⁹ Mbacké Diagne, interview by authors, April 30, 2025.

⁵⁰ Ibid.

⁵¹ Robert Lado, "Developmental Reading in Two Languages," *NABE Journal* 6, no. 2–3 (1981): 99–110, <https://doi.org/10.1080/08855072.1981.10668427>.

⁵² Institut de la Francophonie pour l'Education et la Formation (IFEFF), *Guide d'Orientation à l'Approche Bi-plurilingue ELAN de l'Enseignement des Langues Africaines et du Français* (Dakar: Programme École et Langues Nationales (ELAN), 2017).

⁵³ Keiko Koda, "Impacts of Prior Literacy Experience on Learning to Read in a Second Language," in *Learning to Read across Languages: Cross-Linguistic Relationships in First- and Second-Language Literacy Development*, ed. Keiko Koda and Ann M. Zehler (New York: Routledge, 2008), 68–96.

⁵⁴ RTI International, *Renforcement de la Lecture Initiale pour Tous (RELIT)* (Research Triangle Park, NC: RTI International, 2022), https://www.rti.org/sites/default/files/relit_dec22_final_eng_approved.pdf.

⁵⁵ Cheikh Beye, interview by authors, February 28, 2025.

⁵⁶ Elhadj Omar Diop, interview by authors, May 1, 2025.

⁵⁷ Diagne, interview.

⁵⁸ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

⁵⁹ UNESCO Bangkok, *Improving the Quality of Mother Tongue-Based Literacy and Learning: Case Studies from Asia, Africa and South America* (Bangkok: UNESCO Asia and Pacific Regional Bureau for Education, 2008), <https://unesdoc.unesco.org/ark:/48223/pf0000177738.locale=en>.

⁶⁰ Kwasi Opoku-Amankwa, Dora F. Edu-Buandoh, and Aba Brew-Hammond, "Publishing for Mother Tongue-Based Bilingual Education in Ghana: Politics and Consequences," *Language and Education* 29, no. 1 (2015): 1–14, <https://doi.org/10.1080/09500782.2014.921194>.

⁶¹ Adama Ouane and Christine Glanz, eds., *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* (UNESCO, 2011).

⁶² UNESCO Bangkok, *Improving the Quality of Mother Tongue-Based Literacy and Learning*.

⁶³ Opoku-Amankwa, Edu-Buandoh, and Aba Brew-Hammond, "Publishing for mother tongue-based bilingual education in Ghana."

⁶⁴ Ouane and Glanz, eds., *Optimising Learning, Education and Publishing in Africa*.

⁶⁵ République du Sénégal MEN DEE, *Modèle Harmonisé d'Enseignement Bilingue au Sénégal (MOHEBS)* (Dakar: MEN, 2019), 16.

⁶⁶ Diagne, interview.

⁶⁷ RTI International, *RELIT*.

⁶⁸ Diagne, interview.

⁶⁹ Ablaye Niang, interview by authors, April 29, 2025.

⁷⁰ Beye, interview.

⁷¹ Diouf, "Innovations Pédagogiques pour l'Intégration des Langues Nationales Africaines dans l'Éducation."

⁷² Mamadou Cisse, *La Francophonie dans l'Approche des Politiques Éducatives et Linguistiques en Afrique Occidentale* (Dakar: Université Cheikh Anta Diop, 2015).

⁷³ Aino Pakarinen, *L'Éducation en France: Politiques et Pratiques* (Paris: Presses Universitaires de France, 2009).

⁷⁴ Abou Bakry Kébé and Moustapha Fall, "Language and Multilingualism in Senegal: From Colonial Legacies to Contemporary Educational Issues," *ASTR-Ghana* 2, no. 2 (2025): 11–24.

⁷⁵ World Bank Group, *SENEGAL – Project for the Improvement of Education System Performance – PAPSE: Implementation and Status Report* (2023).

⁷⁶ Ayé Hager-M'Boua and Fabrice Jaumont, *Une Révolution Bilingüe pour l'Afrique* (Paris: CALEC Éditions, 2023).

⁷⁷ Sophie Babault, *L'Éducation Bilingue: Enjeux de Politique Linguistique, Appropriation par les Acteurs Sociaux et Construction de Compétences chez les Apprenants* (Habilitation à diriger des recherches (HDR) diss., Université de Lille, 2015), <https://theses.hal.science/tel-01260194>.

⁷⁸ République du Sénégal MEN DEE, *PNLSE*.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ "Who We Are," African Research and Educational Development (ARED), accessed September 12, 2025, <https://ared-edu.org/en/who-we-are/>.

⁸² République du Sénégal MEN DEE, *PNLSE*.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ RTI International, *Early Grade Reading Assessment: Applications and Interventions to Improve Basic Literacy* (Research Triangle Park, NC: RTI International, 2011), <https://www.rti.org/rti-press-publication/early-grade-reading-assessment-applications-interventions-improve-basic-literacy/fulltext.pdf>.

⁸⁶ USAID Senegal, "Lecture Pour Tous (Reading for All)," Fact Sheet, 2016–2021, <https://www.usaid.gov/senegal/education>.

⁸⁷ Jonathan Stern et al., *Learning at Scale: Interim Report* (Research Triangle Park, NC: RTI International, 2021).

⁸⁸ RTI International, *RELIT*.

⁸⁹ République du Sénégal MEN DEE, *MOHEBS*.

⁹⁰ "Programme de Renforcement de la Lecture Initiale pour Tous (RELIT)," Cellule Nationale d'Orientation et de Suivi des Programmes, accessed September 22, 2025, <https://cnosp.gouv.sn/content/programme-de-renforcement-de-la-lecture-initiale-pour-tous-relit>.

⁹¹ RTI International, *RELIT*.

⁹² American Institutes for Research. Evaluation of the Ndaw Wune Remedial Education Program in Senegal. Washington, DC: American Institutes for Research, 2026.

⁹³ Niang, interview.

⁹⁴ Ibid.

⁹⁵ Diop, interview.

⁹⁶ Hubert Ndecky, interview by authors, April 28 2025.

⁹⁷ Niang, interview.

⁹⁸ Diop, interview.

⁹⁹ Diagne, interview.

¹⁰⁰ Ndecky, interview.

¹⁰¹ Diagne, interview.

¹⁰² Niang, interview.

¹⁰³ PASEC, *PASEC2019 – Qualité du Système Éducatif Sénégalais: Performances et Environnement de l'Enseignement-Apprentissage au Primaire* (Dakar: PASEC, 2021), https://pasec.confemen.org/wp-content/uploads/sites/2/2023/03/Resume-PASEC2019_Senegal.pdf.

¹⁰⁴ UNESCO Institute for Statistics, *Senegal Country Report*, COVID-19 in Sub-Saharan Africa: Monitoring Impacts on Learning Outcomes (MILO) (Montreal: UNESCO Institute for Statistics, January 2022), https://uis.unesco.org/sites/default/files/documents/milo_senegal_country_report-jan-2022.pdf.

¹⁰⁵ Global Partnership for Education, *Senegal ITAP Report* (Washington, DC: Global Partnership for Education, June 2022), <https://www.globalpartnership.org/node/document/download?file=document%2Ffile%2F2022-06-senegal-itap-report.pdf>.

¹⁰⁶ IPE-UNESCO, *Note d'Orientation: Utilisation des Données d'Évaluation des Apprentissages – Sénégal*, n°3 (Paris: IPE-UNESCO, 2021), <https://inee.org/sites/default/files/resources/375499fre.pdf>.

¹⁰⁷ MaryFaith Mount-Cors, Michel Rousseau, and Pierre de Galbert, *Lecture Pour Tous: Rapport de l'Évaluation à Mi-Parcours des Compétences Fondamentales en Lecture (EGRA) au Sénégal* (Dakar: USAID Senegal, 2019), <https://lpt.education.sn/sites/default/files/2020-05/USAID%20Lecture%20Pour%20Tous%20midlineEGRAreport%20Oct3%202019%20final%20Jan27%202020.pdf>.

¹⁰⁸ “Assessment by Communities, for Communities,” IIEP Learning Portal, accessed September 22, 2025, <https://learningportal.iiep.unesco.org/en/blog/assessment-by-communities-for-communities>.

¹⁰⁹ “Jàngandoo,” PAL Network, accessed September 22, 2025, <https://palnetwork.org/jangandoo/>.

¹¹⁰ Global Partnership for Education, *Senegal ITAP Report*.

¹¹¹ UNESCO, *Pleins Feux sur l’Achèvement de l’Education de Base et les Apprentissages Fondamentaux au Sénégal* (Paris: UNESCO, 2022), https://unesdoc.unesco.org/ark:/48223/pf0000383300_fre.

¹¹² “Assessment by Communities, for Communities.”

¹¹³ “Jàngandoo.”

¹¹⁴ Christian Dumas, Jean-Louis Schwob, and Leonard Wantchekon, *Une Analyse Longitudinale du Système Educatif Sénégalais: Premiers Acquis Scolaires et Parcours Ultérieurs* (Dakar: CONFEMEN / PASEC, 2004).

¹¹⁵ PASEC, *PASEC 2014: Performances du Système Educatif en Afrique Subsaharienne Francophone—Compétences et Facteurs de Réussite au Primaire* (Dakar: PASEC, 2015).

¹¹⁶ Thierno Diallo, et al., *Mapping Foundational Literacy and Numeracy Research in Sub-Saharan Africa: Senegal Country Report* (Cambridge, UK: Education Sub Saharan Africa (ESSA) & Research for Equitable Access and Learning (REAL Centre), University of Cambridge, 2024).

¹¹⁷ PASEC, *PASEC 2019: Qualité des Systèmes Educatifs en Afrique Subsaharienne Francophone—Performances et Environnement de l’Enseignement-Apprentissage au Primaire* (Dakar: PASEC, 2020).

¹¹⁸ PASEC, *PASEC 2014*.

¹¹⁹ Diallo et al., *Mapping Foundational Literacy*, 2024.

¹²⁰ PASEC, *PASEC 2019*.

¹²¹ Diallo et al., *Mapping Foundational Literacy*, 2024.

¹²² PASEC, *PASEC 2019*.

¹²³ Ibid.

¹²⁴ Abdoulaye Mbaye and Mamadou B. Sylla, *Inégalités Régionales et Performances Scolaires au Sénégal: Une Analyse des Déterminants des Résultats Scolaires dans le Primaire* (Dakar: Initiative Prospective Agricole et Rurale (IPAR), 2018).

¹²⁵ CONFEMEN, *PASEC Sénégal: Rapport d’Evaluation—Le Système Educatif Sénégalais: Performances et Déterminants en Fin d’Ecole Primaire* (Dakar: CONFEMEN, 2010).

¹²⁶ Mbaye and Sylla, *Inégalités Régionales*.

¹²⁷ LARTES-IFAN, *Rapport National Jàngandoo 2016: Évaluation des Compétences de Base des Enfants Agés de 9 à 16 ans au Sénégal* (Dakar: Université Cheikh Anta Diop / LARTES-IFAN, 2017).

¹²⁸ LARTES-IFAN, *Rapport National Jàngandoo 2019: Évaluation des Compétences de Base des Enfants Agés de 9 à 16 ans au Sénégal* (Dakar: Université Cheikh Anta Diop / LARTES-IFAN, 2020).

¹²⁹ PASEC, *PASEC 2019*.

¹³⁰ Ibid.

¹³¹ PASEC, *Evaluation du PASEC en Afrique Subsaharienne Francophone, Lien avec le Suivi de l'ODD4* (Dakar: UNESCO Institute for Statistics, 2020), https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2020/11/WG-LA-M2-1_PASEC.pdf.

¹³² Martin Gustafsson, *Assessing Learning Proficiency Levels and Trends for Sustainable Development Goal 4.1: A Focus on Africa* (Montreal: UNESCO Institute for Statistics, 2021), https://tcg.uis.unesco.org/wp-content/uploads/sites/4/2021/11/Measuring-Learning-Proficiency-SDG-4-1_Oct-2021.pdf.

¹³³ Australian Council for Educational Research (ACER), *Overview of Capacity Development Modules—COVID-19: Monitoring Impacts on Learning Outcomes (MILO)* (Montreal: UNESCO Institute for Statistics, 2021), https://ampl.uis.unesco.org/wp-content/uploads/sites/17/2022/01/ACER-UIS_Overview-Capacity-Development-Modules_22.3.21.pdf.

¹³⁴ UNESCO Institute for Statistics, *Senegal Country Report*.

¹³⁵ Mount-Cors, Rousseau, and de Galbert, *Lecture Pour Tous: Rapport de l'Évaluation à Mi-Parcours*.

¹³⁶ PASEC, *PASEC 2019*.

¹³⁷ Ibid.

¹³⁸ UNESCO Institute for Statistics, *Senegal Country Report*.

¹³⁹ Mount-Cors, Rousseau, and de Galbert, *Lecture Pour Tous: Rapport de l'Évaluation à Mi-Parcours*.

¹⁴⁰ Moussa Daff et al., *SHARE LITES (Language of Instruction Translation in Education Systems) Senegal Early Grade Reading Assessments* (dataset, University of Notre Dame/USAID, 2024), used to calculate authors' own summary statistics.

¹⁴¹ RTI International, *Etude sur l'Évaluation des Acquis en Lecture au Primaire au Sénégal: Résultats de l'Évaluation à Mi-Parcours de l'EGRA 2009* (Research Triangle Park, NC: RTI International, 2010).

¹⁴² République du Sénégal MEN, *Rapport de l'Évaluation EGRA 2015 au Sénégal: Évaluation des Compétences de Base en Lecture des Elèves du Primaire* (Dakar: MEN, 2016).

¹⁴³ RTI International, *Early Grade Reading Assessment for Science of Teaching Project—Senegal* (dataset, Gates Foundation, 2025), used to calculate authors' own summary statistics.

- ¹⁴⁴ World Bank, *Senegal Service Delivery Indicators: Education and Health Services in Senegal* (Washington, DC: World Bank, 2013)
- ¹⁴⁵ C. T. Niang, *Qualité des Enseignants et Performance des Élèves en Afrique Francophone: Que Nous Apprend PASEC2014?* (Dakar: CONFEMEN / PASEC, 2017).
- ¹⁴⁶ World Bank, *Senegal—Education Service Delivery Indicators 2017* (Washington, DC: World Bank, 2018).
- ¹⁴⁷ Agence Nationale de la Statistique et de la Démographie (ANSD), *Situation Économique et Sociale du Sénégal 2017–2018* (Dakar: ANSD, 2019).
- ¹⁴⁸ UNESCO, *Rapide Évaluation de l’Impact de la COVID-19 sur les Acquis d’Apprentissage des Élèves au Sénégal* (Dakar: UNESCO Bureau Régional pour l’Education en Afrique de l’Ouest (BRED), 2021)
- ¹⁴⁹ République du Sénégal MEN, *Rapport sur les Performances du Système Éducatif Post-COVID-19 au Sénégal* (Dakar: MEN, 2022).
- ¹⁵⁰ UNESCO Institute for Statistics, *Senegal Country Report*.
- ¹⁵¹ Mount-Cors, Rousseau, and de Galbert, *Lecture Pour Tous: Rapport de l’Évaluation à Mi-Parcours*.
- ¹⁵² Ibid.
- ¹⁵³ Ibid.
- ¹⁵⁴ Ibid.
- ¹⁵⁵ Ibid.
- ¹⁵⁶ Ibid.
- ¹⁵⁷ Diop, interview.
- ¹⁵⁸ Agence Nationale de la Statistique et de la Démographie (ANSD), *Recensement Général de la Population, de l’Habitat, de l’Agriculture et de l’Élevage de 2013: Rapport National de Présentation des Résultats Définitifs* (Dakar: République du Sénégal, 2018).
- ¹⁵⁹ RTI International, *Early Grade Reading Assessment for Science of Teaching Project—Senegal*.
- ¹⁶⁰ M. Fall, “La Place du Français au Sénégal: Entre Langue Officielle et Pratiques Sociolinguistiques,” in *Langues, Identités et Politiques Linguistiques en Afrique Francophone*, ed. M. Chardenet and J.-B. Marcellesi (Paris: L’Harmattan, 2019), 75–92.
- ¹⁶¹ ANSD, *Recensement Général de la Population*.

¹⁶² F. McLaughlin, “Language Policy and Planning in Senegal,” *Current Issues in Language Planning* 16, no. 2 (2015): 164–179.

¹⁶³ Fall, “La Place du Français.”

¹⁶⁴ McLaughlin, “Language Policy and Planning.”

¹⁶⁵ ANSD, *Recensement Général de la Population*.

¹⁶⁶ Ibrahima Diallo, “The Politics of National Languages in Postcolonial Senegal,” *Language Problems and Language Planning* 36, no. 1 (2012): 1–20.

¹⁶⁷ ANSD, *Recensement Général de la Population*.

¹⁶⁸ J. Faye, “The Seereer Languages of Senegal and the Gambia: A Typological Overview,” in *Language Documentation and Conservation in Africa*, ed. M. Brenzinger and A. Coupez (Cologne: Rüdiger Köppe Verlag, 2013), 97–112.

¹⁶⁹ ANSD, *Recensement Général de la Population*.

¹⁷⁰ B. Hopkins, “Joola Dialectology and the Standardization of a Written Language,” in *Standardization of African Languages: Language Policy and Education in Africa*, ed. F. N. N. Nkolo, E. Chia, and G. Philippson (Paris: UNESCO, 2015), 99–114.

¹⁷¹ ANSD, *Recensement Général de la Population*.

¹⁷² Ibid.

¹⁷³ A. Tandina, *Les Soninké: Peuplement, Langue et Culture Entre le Fleuve Sénégal et la Diaspora* (Paris: L’Harmattan, 2014).

¹⁷⁴ ANSD, *Recensement Général de la Population*.

¹⁷⁵ Fall, “La place du français.”

¹⁷⁶ Hopkins, “Joola Dialectology.”

¹⁷⁷ République du Sénégal MEN DEE, *MOHEBS*.

¹⁷⁸ Diagne, interview.

¹⁷⁹ Those with established writing systems.

¹⁸⁰ Ngoc Tan Le et al., “The Best of Both Worlds: Exploring Wolofal in the Context of NLP,” in *Proceedings of the 1st Workshop on NLP for Languages Using Arabic Script (AbjadNLP)* (Association for Computational Linguistics, January 19, 2025), 1–6, <https://aclanthology.org/2025.abjadnlp-1.1.pdf>

¹⁸¹ O. Ka, “The Orthography of Wolof: History, Structure, and Pedagogical Implications,” in *African Languages in a Multilingual World: Challenges and Perspectives*, ed. A. M. E. Devin and M. Cissé (Dakar: Codesria, 2018), 142–159.

¹⁸² République du Sénégal MEN, *Décret no 2005-988 Relatif à l’Orthographe et la Séparation des Mots en Pulaar*, Décret no 2005-988, 2005.

¹⁸³ Transparency in grapheme-phoneme correspondence refers to the clarity with which words’ written forms correspond to their oral sounds.

¹⁸⁴ République du Sénégal MEN, *Décret no 2005-988 Relatif à l’Orthographe et la Séparation des Mots en Pulaar*.

¹⁸⁵ F. McLaughlin, “The Ascent of Pulaar: Language Policy and Identity in Senegal,” in *Linguistic Landscape: Expanding the Scenery*, ed. E. L. Shohamy and D. Gorter (New York: Routledge, 2009), 142–160.

¹⁸⁶ M. Leroy, M. Liberman, and E. Gauthier, *Grapheme-Phoneme Correspondences and Reading Acquisition in African Languages: The Case of Wolof and Pulaar* (Dakar: SIL International / UNESCO Dakar, 2010).

¹⁸⁷ Faye, “Seereer Languages,” 2013.

¹⁸⁸ République du Sénégal MEN, *Décret no 2005-990 Relatif à l’Orthographe et la Séparation des Mots en Seereer*, Décret no 2005-990, 2005.

¹⁸⁹ J. Faye and C. Mbacké, “Phonological Challenges in Learning to Read Seereer: Implications for Orthographic Design and Literacy Instruction,” in *Phonologie et Enseignement des Langues Africaines*, ed. A. Nikiéma and C. Grégoire (Paris: Karthala, 2016), 85–102.

¹⁹⁰ P. Sambou, *Éléments de Description du Mandinka: Phonologie, Tonologie, Morphosyntaxe* (Paris: L’Harmattan, 2007).

¹⁹¹ République du Sénégal MEN, *Décret no 2005-982 Relatif à l’Orthographe et la Séparation des Mots en Mandika*, Décret no 2005-982, 2005.

¹⁹² D. Creissels, “Les Prépositions Simples du Tswana,” in *Prépositions et Postpositions: Approches Typologiques et Formelles*, ed. J. Teng (Paris: Lavoisier, 2013), 17–56.

¹⁹³ République du Sénégal MEN, *Décret no 2005-981 Relatif à l’Orthographe et la Séparation des Mots en Joola*, Décret no 2005-981, 2005.

¹⁹⁴ Ibid.

¹⁹⁵ Ibid.

¹⁹⁶ République du Sénégal MEN, *Décret no 2005-991 Relatif à l'Orthographe et la Séparation des Mots en Sooninke*, Décret no 2005-992, 2005.

¹⁹⁷ Ibid.

¹⁹⁸ Ibid.

¹⁹⁹ Ibid.

²⁰⁰ Adjaratou Sall, interview by authors, March 25, 2025.

²⁰¹ Liliane Sprenger-Charolles, *Apprendre à lire-écrire en français langue seconde au Sénégal: le cas des élèves wolophones* (Dakar : USAID, 2021).

²⁰² P. H. K. Seymour, M. Aro, and J. M. Erskine, "Foundation Literacy Acquisition in European Orthographies," *British Journal of Psychology* 94, no. 2 (2003): 143–174.

²⁰³ Ibid.

²⁰⁴ Ibid.

²⁰⁵ Moustapha Fall, *The Impact of Mother Tongue Illiteracy on Second Language Acquisition: The Case of French and Wolof in Senegal* (New York: Routledge, 2020), <https://doi.org/10.4324/9780367817060>.

²⁰⁶ B. Trudell and L. Schroeder, "Reading Methodologies for African Languages: Avoiding Linguistic and Pedagogical Imperialism," *Language, Culture and Curriculum* 20, no. 3 (2007): 165–180.

²⁰⁷ Ouane and Glanz, eds., *Optimising Learning, Education and Publishing in Africa*.

²⁰⁸ J. C. Ziegler and U. Goswami, "Reading Acquisition, Developmental Dyslexia, and Skilled Reading across Languages: A Psycholinguistic Grain Size Theory," *Psychological Bulletin* 131, no. 1 (2005): 3.

²⁰⁹ A. W. Diagne, *Etude des Coûts Cognitifs de la Lecture en Langues Africaines et en Français: Une Analyse Comparative entre le Wolof et le Français chez des Enfants Sénégalais* (2014)..

²¹⁰ Diallo, "The Politics of National Languages."

²¹¹ UNESCO, *If You Don't Understand, How Can You Learn?* (Policy Paper 24 / Global Education Monitoring Report) (Paris: United Nations Educational, Scientific and Cultural Organization, 2016), <https://unesdoc.unesco.org/ark:/48223/pf0000243713>.

²¹² Ka, "Orthography of Wolof," 2018.

²¹³ Faye and Mbacké, "Phonological Challenges in Seereer," 2016.

²¹⁴ Ouane and Glanz, eds., *Optimising Learning, Education and Publishing in Africa*..

²¹⁵ République du Sénégal MEN DEE, *PNLSE*.

²¹⁶ Diagne, interview.

²¹⁷ Ibid.

²¹⁸ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

²¹⁹ Daff et al., *SHARE LITES Senegal Final Report*.

²²⁰ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

²²¹ CONFEMEN. *Langue Première et Langue d’Enseignement : Quelle(s) Stratégie(s) pour Faciliter les Premiers Apprentissages, la Réussite Scolaire et le Vivre-Ensemble au XXI^e Siècle?* (Dakar: CONFEMEN, 2022), https://www.confemen.org/wp-content/uploads/2023/01/DRO-2022_VF_valide_definitif_publie.pdf.

²²² Ibid.

²²³ Ndecky, interview.

²²⁴ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

²²⁵ République du Sénégal MEN DEE, *PNLSE*.

²²⁶ Ndiaye, Alassane. *Plurilinguisme ou bilinguisme au Sénégal : à l’épreuve de la wolofisation par le bas de la société*. Doctoral thesis, Université Cheikh Anta Diop, Dakar, Sénégal. 2023.

²²⁷ Ndecky, interview.

²²⁸ République du Sénégal MEN DEE, *PNLSE*.

²²⁹ République du Sénégal MEN, *Guide Wolof CI*, 7.

²³⁰ République du Sénégal MEN, *Guide Wolof CI, Modèle Harmonisé d’Enseignement Bilingue au Sénégal – MOHEBS – Curriculum Bilingue de l’Education de Base (CBEB)* (Dakar: MEN, 2022), 4.

²³¹ Casale and Posel, “English Language Proficiency and Earnings,” 388.

²³² Liu, Y., M. A. Groen, and K. Cain. 2024. “The Association between Morphological Awareness and Reading Comprehension in Children: A Systematic Review and Meta-Analysis.” *Educational Research Review* 42: 100571. <https://doi.org/10.1016/j.edurev.2024.100571>.

²³³ République du Sénégal MEN DEE, *PNLSE*.

²³⁴ Daff et al., *SHARE LITES Senegal Final Report*.

²³⁵ Ibid.

²³⁶ Ibid.

²³⁷ République du Sénégal MEN DEE, *PNLSE*.

²³⁸ Ibid.

²³⁹ Note: It is unclear if these are still being printed now that RELIT was terminated.

²⁴⁰ RTI International, *Early Grade Reading Assessment for Science of Teaching Project*.

²⁴¹ République du Sénégal MEN, *Bigrammaire de base pour la lecture-écriture initiale* (Dakar: MEN, 2020).

²⁴² Niang, interview.

²⁴³ Diop, interview.

²⁴⁴ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

²⁴⁵ République du Sénégal MEN, *Arrêté Interministériel : Relatif à l'Organisation du Test de Recrutement et à la Formation des Elèves Maîtres et Elèves Professeurs*, Arrêté Interministériel, 2012.

²⁴⁶ République du Sénégal MEN, "Décret No 2011-625 du 11 Mai 2011 Relatif à l'Administration et au Fonctionnement des Centres Régionaux de Formation des Personnels de l'Éducation (CRFPE), Décret No 2011-625, 2011.

²⁴⁷ Ndecky, interview.

²⁴⁸ République du Sénégal MEN Direction de Formation et de la Communication, *Referentiel de formation des eleves-maitres (Version 2)* (Dakar: MEN, 2015).

²⁴⁹ Ndecky, interview.

²⁵⁰ Diagne, interview.

²⁵¹ Niang, interview.

²⁵² Diop, interview.

²⁵³ Papa Diome, interview by authors, March 4, 2025.

²⁵⁴ Diop, interview.

²⁵⁵ Diagne, interview.

²⁵⁶ Ndecky, interview.

²⁵⁷ Ibid.

²⁵⁸ Daff et al., *SHARE LITES Senegal Early Grade Reading Assessments*.

²⁵⁹ Beye, interview.

²⁶⁰ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

²⁶¹ Beye, interview.

²⁶² République du Sénégal MEN DEE, *PNLSE*.

²⁶³ Ndecky, interview.

²⁶⁴ République du Sénégal MEN DEE, *PNLSE*.

²⁶⁵ Beye, interview.

²⁶⁶ Universal Management Group, *Summative Evaluation of GPE's Country-level Support to Education Final Report* (Montreal: Universal/GPE, 2019).

²⁶⁷ Ndecky, interview.

²⁶⁸ Diagne, interview.

²⁶⁹ Beye, interview.

²⁷⁰ Diagne, interview.

²⁷¹ Ndecky, interview.

²⁷² Niang, interview.

²⁷³ Diagne, interview.

²⁷⁴ Niang, interview.

²⁷⁵ République du Sénégal MEN DEE, *PNLSE*.

²⁷⁶ Stern et al., *Learning at Scale*.

²⁷⁷ Diop, interview.

²⁷⁸ Ndecky, interview.

²⁷⁹ RTI International, *Planning for Language Use in Education: Best Practices and Practical Steps to Improve Learning Outcomes* (Washington, DC: USAID, 2015).

²⁸⁰ Diouf, "Innovations Pédagogiques pour l'Intégration des Langues Nationales Africaines dans l'Éducation."

²⁸¹ Organisation Internationale de la Francophonie (OIF) *Programme ELAN-Afrique: École et Langues Nationales en Afrique. Rapport d'Activités 2013* (Paris: OIF, 2013).

²⁸² Aliou Ngoné Seck, *Description des Méthodes de Lecture en Français au Sénégal* (Dakar: MEN & UNESCO-BIE, 2007).

²⁸³ République du Sénégal MEN and USAID, *Rapport d'Évaluation des Besoins de Formation des Enseignants, Directeurs et Inspecteurs RELIT/G2G* (Dakar: USAID, 2023).

²⁸⁴ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

²⁸⁵ Diop, interview.

²⁸⁶ Stern et al., *Learning at Scale*.

²⁸⁷ République du Sénégal MEN and USAID, *Développement Professionnel Continu: Plan du dispositif modifié à partir de l'année scolaire 2020-2021* (Dakar: USAID, 2020).

²⁸⁸ Stern et al., *Learning at Scale*.

²⁸⁹ Diop, interview.

²⁹⁰ République du Sénégal MEN DEE, *PNLSE*.

²⁹¹ Ibid.

²⁹² Diop, interview.

²⁹³ Ndecky, interview.

²⁹⁴ Niang, interview.

²⁹⁵ Daff et al., 2024.

²⁹⁶ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

²⁹⁷ Niang, interview.

²⁹⁸ Ibid.

²⁹⁹ Ibid.

³⁰⁰ Beye, interview.

³⁰¹ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

³⁰² Ndecky, interview.

³⁰³ Ibid.

³⁰⁴ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

³⁰⁵ Ibid.

³⁰⁶ RTI International, *Early Grade Reading Assessment for Science of Teaching Project—Senegal*.

³⁰⁷ Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

³⁰⁸ Ibid.

³⁰⁹ Ibid.

³¹⁰ Ibid.

³¹¹ Ibid.

³¹² Beye, interview.

³¹³ Ndecky, interview.

³¹⁴ Diop, interview.

³¹⁵ Beye, interview.

³¹⁶ Niang, interview.

³¹⁷ Beye, interview.

³¹⁸ Diop, interview.

³¹⁹ Ibid.

³²⁰ Ibid.

³²¹ Ibid.

³²² Nakamura et al., *Strengthening Bilingual and Multilingual Learning Systems*.

³²³ République du Sénégal MEN DEE, *PNLSE*.

³²⁴ Stern et al., *Learning at Scale*.

³²⁵ République du Sénégal MEN DEE, *PNLSE*.

³²⁶ Niang, interview.

³²⁷ Ndecky, interview.

³²⁸ RTI International, *RELIT*.

³²⁹ République du Sénégal MEN, *PAQUET – EF 2018 -2030*.

³³⁰ République du Sénégal MEN, *Plan d’Amélioration et de Développement de l’Éducation du Sénégal (PADES) 2019–2023* (Dakar: MEN, 2019).

³³¹ World Bank, *Senegal – Public Financial Management Reform Project*. (Washington, DC: World Bank, 2013).

³³² World Bank, *Project Appraisal Document: Senegal Quality and Equity of Basic Education (PAQEED) Additional Financing*. (Washington, DC: World Bank, 2020).

³³³ Ibid.

³³⁴ UNICEF and République du Sénégal MEN, *Évaluation du SIMEN: Rapport Technique* (Dakar: UNICEF/MEN, 2019).

³³⁵ UNICEF, *Digital education systems in francophone West Africa: Opportunities and challenges* (Dakar: UNICEF, 2020).

³³⁶ PASEC, *PASEC 2019*.

³³⁷ UNESCO Institute for Statistics (UIS). (2021). *Monitoring Impacts on Learning Outcomes (MILO) – Sénégal Country Report*. Montreal: UIS.

³³⁸ A. W. Diagne and H. N. Sall, *Évaluation et Politiques Educatives au Sénégal*. (Dakar: Université Cheikh Anta Diop de Dakar, 2019).

³³⁹ République du Sénégal MEN, *Lettre de Politique Sectorielle de Développement de l’Éducation 2025* (Dakar: MEN, 2020).

³⁴⁰ Diagne and Sall, *Évaluation et Politiques Educatives au Sénégal*.

³⁴¹ World Bank, *PAQEED*.

³⁴² Michel Rousseau, Pierre de Galbert, and MaryFaith Mount-Cors, *Lecture Pour Tous: Senegal EGRA (Early Grade Reading Assessment) Baseline Report – Third DRAFT* (Dakar: USAID, 2017),

<https://lpt.education.sn/sites/default/files/2020-05/Lecture Pour Tous EGRA Baseline Report third draft Clean %28Resubmission Dec 2017%29.pdf>.

³⁴³ Mount-Cors, Rousseau, and de Galbert, *Lecture Pour Tous: Rapport de l'Évaluation à Mi-Parcours*.

³⁴⁴ RTI International, *RELIT*.

³⁴⁵ Rousseau, de Galbert, and Mount-Cors, *Lecture Pour Tous: Senegal EGRA Baseline Report*.

³⁴⁶ Mount-Cors, Rousseau, and de Galbert, *Lecture Pour Tous: Rapport de l'Évaluation à Mi-Parcours*.

³⁴⁷ Chemonics International, *Teacher Knowledge, Attitudes and Practice Regarding Early Grade Reading: Baseline Study Report – Version A Lecture Pour Tous* (Dakar: USAID, 2019), https://lpt.education.sn/sites/default/files/2020-05/Senegal LPT_Teacher KAP Baseline Report_Version A and annexes_0.pdf.

³⁴⁸ Mount-Cors, Rousseau, and de Galbert, *Lecture Pour Tous: Rapport de l'Évaluation à Mi-Parcours*.

³⁴⁹ PASEC, *PASEC 2019*.

³⁵⁰ Rousseau, de Galbert, and Mount-Cors, *Lecture Pour Tous: Senegal EGRA Baseline Report*.

³⁵¹ Mount-Cors, Rousseau, and de Galbert, *Lecture Pour Tous: Rapport de l'Évaluation à Mi-Parcours*.

³⁵² RTI International, *RELIT*.

³⁵³ PASEC, *PASEC 2019*.

³⁵⁴ République du Sénégal MEN, *Lettre de Politique Sectorielle de Développement de l'Éducation 2025*.

³⁵⁵ Chemonics International, *Teacher Knowledge, Attitudes and Practice*.

³⁵⁶ Mount-Cors, Rousseau, and de Galbert, *Lecture Pour Tous: Rapport de l'Évaluation à Mi-Parcours*.

³⁵⁷ UNICEF and République du Sénégal MEN, *Évaluation du SIMEN*.

³⁵⁸ RTI International, *RELIT*.

³⁵⁹ Diagne and Sall, *Évaluation et politiques éducatives au Sénégal*.

³⁶⁰ République du Sénégal MEN, *Lettre de Politique Sectorielle de Développement de l'Éducation 2025*.

³⁶¹ UNESCO. 2022. Spotlight on Basic Education Completion and Foundational Learning: Senegal. Paris: UNESCO.

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