# TEACHER KNOWLEDGE, ATTITUDES AND PRACTICE REGARDING EARLY GRADE READING:

# BASELINE STUDY REPORT – VERSION B

# LECTURE POUR TOUS

# TEACHER KNOWLEDGE, ATTITUDES AND PRACTICES REGARDING EARLY GRADE READING

## BASELINE STUDY REPORT – VERSION B

# ACKNOWLEDGEMENTS

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# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| CAP | Cellule d'Apprentissage Pédagogique |
| CEAP | Certificat Elémentaire d'Aptitude Pédagogique |
| CEB | Curriculum d'Education de Base |
| CE1 | Cours Elémentaire 1 (Grade 3) |
| CI | Cours d'Initiation (Grade 1) |
| CP | Cours Préparatoire (Grade 2) |
| CRFPE | Centre Régional de Formation de Personnels de l'Education |
| DEE | Direction d'Education Elémentaire |
| DFC | Direction de la Formation de la Communication |
| EGRA | Early Grade Reading Assessment |
| IEF | Inspection de l'Education et de la Formation |
| INEADE | l'Institut National d'Etude et d'Action pour le Développement de l'Education |
| KAP | Knowledge, Attitudes, and Practices |
| L1 | First language (national languages) |
| L2 | Second language (French) |
| MEN | Ministère de l'Education Nationale |
| PALME | Partenariat pour l'Amélioration de la Lecture et des Mathématiques dans l'Enseignement Elémentaire |
| PAQUET | Programme d'Amélioration de la Qualité, de l'Équité et de la Transparence |
| USAID | United States Agency for International Development |

# EXECUTIVE SUMMARY

## Background

The Government of Senegal and its *Ministère de l'Education Nationale* (MEN) have launched a major reading reform program, *Lecture Pour Tous*, to significantly increase reading outcomes for Senegalese students in the early grades. USAID's primary technical assistance initiative to aid *Lecture Pour Tous¸* contracted under USAID/All Children Reading and referred to simply as Lecture Pour Tous, is implemented by Chemonics International and its consortium of partners. Lecture Pour Tous began at the end of October 2016 and runs through July 10, 2021, aiming to make measurable and significant improvements in reading outcomes for students in Grades 1-3 through a comprehensive approach including evidence-based teaching and learning materials, teacher training and coaching, student assessment, more time allocated to reading in the classroom as well as support for reading practice at home and in the community, and the use of national languages for reading instruction.

This report presents the complete and final results of the baseline study facilitated by Lecture Pour Tous related to teacher knowledge, attitudes and practices (KAP) regarding early grade reading, and including early grade reading instruction using national languages.  Data collection for the components of the study presented here took place in September 2017 for the baseline questionnaire administered in the first regions participating in the program, in May 2018 for the baseline observation component of the baseline study, and in October 2018 for the baseline questionnaire administered in the two additional regions that joined the program in its third year. ("Version A" of the baseline study report including survey data only from the first four regions participating in the program.)

The study adopted a mixed methods approach and consisted of two components:

**Component 1:  A large-scale survey** consisting of teacher self-reporting about their knowledge, attitudes and self-perceptions of classroom practice. The first phase of this component was survey administration in the first four regions participating in the program (Koalak, Fatick, Kaffrine, Matam) and the second phase was survey administration in the two additional regions that joined the program in its second year of intervention (Louga and Diourbel).

**Component 2:  Classroom observation to examine teachers' actual practice, including time on task, in a sample of regions and schools.**

A total of 1448 teachers of *Cours d'Initiation* (CI, or Grade 1) were successfully surveyed for Chase 1 of this study, and 57 teachers including those from CI, *Cours Préparatoire* (CP, or Grade 2) and *Cours Eléméntaire – 1* (CE1, or Grade 3) were observed as part of Component 2.  For this baseline study before any program interventions had introduced improved instructional techniques and the use of national languages, the teachers surveyed in Component 1 were asked to refer to their past experience working in standard Senegalese classrooms (that use only French as the official language of instruction); the teachers observed for Component 2 were also still only using French as the official language of instruction and had also not begun program interventions. Full details of the sampling and methodology are contained in Chapter 3 of this report.

## Objectives

The objectives of the teacher KAP study are two-fold:

1. To inform the design of program interventions and MEN policy based on evidence of teachers' current knowledge, attitudes and practice

2. To compare teachers' knowledge, attitudes and practice at the outset of the program with any changes to be measured at the midline and endline of the program

## Key Findings

The key findings from both the survey and observation components of this study yielded a number of areas of interest. In particular, the study has highlighted several areas where modifications to teacher training, coaching, and coaching support/follow-up content may be needed (see "Recommendations" below). As might have been expected, there were also some differences between self-reported practices in the survey and actual practices as revealed during observation. The key findings are presented below under four categories: 1) teacher self-reported knowledge vs. observed practice, 2) teacher knowledge, 3) teacher attitudes, and 4) teacher practice.

### TEACHER SELF-REPORTED KNOWLEDGE VS. PRACTICE

#### Key Finding 1: Results from the self-reported survey were overwhelmingly positive in terms of reported high levels of knowledge, good grasp of skills and sound attitudes related to reading

Findings from Component 1 were perhaps more positive than might have been expected from a population of this nature, at program baseline, with high percentages of teachers reporting good or very good knowledge and skills in the teaching of reading. This is quite in keeping with other KAP studies (see literature review) and reasons for this are acknowledged in the limitations. At the same time, there were discrepancies between self-reported knowledge and practices in the survey of Component 1 and observed practice in Component 2.

#### Key Finding 2: There was a discrepancy between the reported knowledge of instructional techniques and their use in class and their actual use

Teachers reported having extensive knowledge and use of techniques in a number of areas associated with reading, such as the explicit "I do, we do, you do" modeling and gradual release approach. However, findings from Component 2 show only a minority of teachers used these techniques. This is to be expected for this baseline study as teachers had not received training on these techniques and may be prone to exaggerating their self-reported knowledge.

#### Key Finding 3: There was a discrepancy between the reported use of languages by teachers during KAP Component 1 and what was observed during KAP Component 2

The CI teachers surveyed in KAP Component 1 reported using national languages (normally the students' first language, or "L1") extensively and for a range of purposes, and with the national language used as the dominant language in teaching in the classroom, despite the fact that at baseline all classrooms observed officially used only French (the second language for most students, or "L2") as the language of instruction. However, results of observations during KAP Component 2 showed that in reality, teachers most often used French.

***Key Finding 4: Teachers universally acknowledged the role of parents and their importance in supporting the reading development of children – but in practice, engagement with parents lags behind this knowledge***

Why most teachers strongly agreed with the statement that it is important for parents to help students practice reading at home, even if the parents themselves are illiterate – only 28.4% of teachers surveyed reported that they always work with a student's parents to involve all the family in helping to improve reading and only 38% reported that they always communicated with parents if children had difficulties reading. This finding is a foundation for the aspects of Lecture Pour Tous working on home-school communication and in particular to ensure that teachers are able to have a range of techniques to use when encouraging parents to work with children, in addition to program efforts to work on the community and parental side of this partnership.

## TEACHER KNOWLEDGE

***Key Finding 5: Fewer years of experience teaching and higher levels of continued professional development are both correlated to a statistically significant degree with the level of self-reported knowledge of the 5 components of reading instruction.***

In general, the less experienced teachers were statistically more likely than more experienced teachers to state that they knew the 5 components of reading. In addition, continuing professional development is strongly correlated with self-reported knowledge of the 5 components of reading. A related finding was that it was also the least experienced teachers who reported having the greatest knowledge of remediation techniques.

***Key Finding 6: Teacher knowledge about the importance of learning to read in mother tongue was high***

Teacher knowledge of the importance of teaching reading in mother tongue – and their attitudes towards children learning to reading in L1 - were very high and positive, with 76% of teachers agreeing that first graders learn better in the national language than in French and with 69% agreeing that if children learned to read in national language they could easily transfer these skills to reading in French.

## TEACHER ATTITUDES

***Key Finding 7: Teachers' self-reported level of language proficiency and levels of confidence in the national languages were low, and lower than in French, but they have positive or very positive attitudes towards the teaching of reading in national languages.***

Teachers felt significantly less confident in teaching in national language than in teaching in French, which corroborates previous research conducted with Lecture Pour Tous support (such as from the Teacher Mobility and Snapshot of School Management Effectiveness [SSME] studies). On the other hand, they felt that it was better for children in early grades to be taught in the national languages, i.e. languages that they understand, and that it was entirely appropriate to begin to teach reading through the medium of the national languages and that reading skills acquired in this way could easily be transferred to French in due course.

## TEACHER PRACTICE

### Key Finding 8: Time off task is very high, with over 20% of the total time during the observed lesson found to be off-task and only 39% of the time spent directly on teaching and learning

Teachers spend 40% of class time on classroom management, 39% of the time on teaching/learning activities and 21%, or one fifth of the time off-task, which is very high. By way of comparison, Stallings et al (2014) found that effective teachers were only off task for around 3% of contact time. In addition to time off task, classroom management activities also take a high percent of teachers' teaching time in class.

This finding provides essential information for Lecture Pour Tous stakeholders (MEN offices and educators at multiple levels as well as project staff) with a tangible target: to try to increase the time on task – and most importantly, the time on learning – through interventions such as pre- and in-service training, coaching, peer and remote support, effective teaching guides, etc., and MEN policies and directives.

### Key Finding 9: Teachers use techniques to teach reading that are not always supported by the evidence base and are different from methods promoted by Lecture Pour Tous

Most teacher practices observed in class fall under techniques where the focus is on teachers themselves using the blackboard, explaining, and asking students to read from the board with little time for student practice. Teachers used blackboard 50.52% of the time in comparison to other materials in class. Additionally, students were rarely observed reading – including reading individually out loud only 7% of the time, reading out loud in chorus together 6.2% of the time, and reading silently 6.6% of the time. Teachers and their students also did not have sufficient materials to support different teaching and learning techniques.

### Key Finding 10: Students generally play a passive role in the learning process

The results have indicated that students do not engage in teacher-guided individual practice or reading from different print sources. Rather, they tend to use slates and blackboard more often. In KAP Component 2 results, 56% of students' activities in class were related to watching and /or listening to the teacher, copying texts on slates or students' notebooks, and writing on the blackboard while only 6% of their activities in class were small group work, asking questions, or working in pairs. In addition, students used slates and blackboards 79.34% of the times in comparison to other materials all together at 20.66%.

### Key Finding 11: Teachers reported not having full competency in how to address remedial issues in reading

In KAP Component 1, teachers reported not being fully confident in providing both remedial work for the whole class but reported being even less certain in their ability to provide remedial work for individual children who were struggling. This is corroborated in the findings from KAP Component 2 that teachers do not test and evaluate students using continuous, formative assessment methods that allow teachers to identify gaps in learning quickly. Instead, teacher tend to focus on administering summative or group evaluations to identify learning at the class level, which takes longer to process and may mean that individual children who have difficulties may be missed.

### *Key Finding 12: The classes being taught by teachers are large by international standards*

The number of children in a class reportedly taught by the teachers in our KAP Component 1 survey was large, with an average of over 40 children per class. Approximately one in five teachers (18.8%) taught classes of over 60 children. The finding related to the large class size was also reinforced through Component 2 of the study. This finding should be considered alongside the critical need for individual students to get sufficient time practicing reading with teacher guidance, and the fact that teachers self-report that children in their classes read aloud every day.

### *Key Finding 13: A cluster analysis showed that teachers with certain characteristics were more likely to engage in certain specific practices, and further investigation would be necessary to see why this is the case.*

For example, teachers residing in the areas of Kaolack and Fatick who were female, assistant teachers (*instituteurs adjoints*) who knew little or nothing at all about key aspects of teaching reading, such as techniques for 100% fair participation of each student in the class, good practices for the practice of reading by students at home, or the five components of reading instruction.

A further group of teachers was made up of mostly assistant teachers living in Matam. Most held qualifications up to the level of the *Certificat Elémentaire d'Aptitude Pédagogique* (CEAP) and reported always using techniques such as making all children read aloud in every lesson; remedial work with all the class as well as special remedial exercises with pupils who have special needs. However, given that this group also reported high levels of knowledge of techniques such as "I do, we do, you do" and also reported devoting at least 60 minutes a day specifically for the teacher and learning of reading in national language – two elements that had not yet started in the target zones at baseline – it may be that this particular group simply had higher levels of reporting knowledge or practices that they perceived they should have but had not actually yet begun in reality.

## Recommendations

Based on the key findings above and other study results, the teacher KAP baseline study team generated the following recommendations, including ways to address issues identified through the practice of reform activities (materials and training, etc.) and policy related to early grade reading instruction, as well as areas for further study. These recommendations do not include the full slate of interventions planned under Lecture Pour Tous program to improve teacher knowledge, attitudes and practices but rather emphasize planned or new aspects deemed particularly important given the study findings. These recommendations are further detailed in the body of the study report.

### *Recommendations for practice (materials, training, and other continuous professional development and support)*

**Recommendation 1:** Ensure teaching and learning materials and associated training and coaching provide sufficient guidance and time to teachers for significantly more student practice reading aloud, particularly with teacher guidance, and in ways that increase opportunities for all children to regularly practice new letters and skills such as reading connected text. Lesson plans and activities must also account for both large class sizes on average as well as a variety of class sizes and configurations that also include multi-grade classes.

**Recommendation 2:** Ensure that teacher guides, training, coaching and any ICT-enabled continuous professional development (CPD) for teachers include very clear guidelines and tools for continuous student assessment and techniques for a minimum of differentiated instruction, and for both group and individual remediation based on these assessments. Review whether any procedural or policy guidelines might also be updated.

**Recommendation 3:** Ensure training and support to teachers includes clear, practical guidelines and tools on how to communicate and collaborate with parents and other community members to support reading out of school

**Recommendation 4:** Review the nature and quantity of pre-service and in-service training on teaching in L1 given that this was identified as a challenge, and make support to teaching in L1 an explicit focus during follow-up coaching sessions and other CPD.

**Recommendation 5:** Consider increasing training, coaching and CPD time on issues related to classroom management and time on task, as well as ensuring that lesson plans account for classroom management needs and are otherwise designed for staying on task.

**Recommendation 6:** Capitalize on the fact that the work force is relatively young and therefore possibly more willing to embrace change.

## *Recommendations for policy or procedural guidelines with associated training and support*

**Recommendation 7:** Set an objective of increasing time-on-learning and reducing time-off-task and time spent on classroom management while providing support and supervision to teachers to achieve it.

**Recommendation 8:** Review and consider potentially updating official guidelines and related training on when and how national languages (L1) and French (L2) should be used in the classroom – both in cases of schools piloting the Lecture Pour Tous or other programming using national languages alongside French as well as in schools for which French remains the single official language of instruction.

## *Recommendations for future study or analysis*

**Recommendation 9**: Triangulate data from the teacher KAP baseline with other research and monitoring supported by Lecture Pour Tous, including the Teacher Mobility Study, Snapshot of School Management Effectiveness (SSME), Local Education Monitoring Approach (LEMA), teacher observation data collected by inspectors in their supervision role, and recent small-scale direct assessments of teacher abilities in the target national languages to better understand teacher knowledge and training needs – potentially differentiated by teacher qualification level and years of service or other variables – and use these conclusions to inform future pre-service and in-service training programming, coaching, and ICT-based materials and strategies for blended learning as part of professional development.

**Recommendation 10:** Streamline the teacher KAP instruments in conjunction with other data collection supported by Lecture Pour Tous where possible to reduce data collection burden while maintaining core items needed for comparing between teacher KAP baseline, midline and endline.

**Recommendation 11:** Conduct further research into teachers' demonstrated levels of proficiency in the national languages and feed results into updated pre-service and in-service training offerings as well as coaching and other CPD measures.

# 1.INTRODUCTION

## 1.1. Background

The Government of Senegal and its *Ministère de l'Education Nationale* (MEN) have launched a major reading reform program, *Lecture Pour Tous*, to significantly increase reading outcomes for Senegalese students in the early grades. USAID's primary technical assistance initiative to aid *Lecture Pour Tous¸* contracted under USAID/All Children Reading and referred to simply as Lecture Pour Tous, is implemented by Chemonics International and its consortium of partners. Lecture Pour Tous began at the end of October 2016 and runs through July 10, 2021, aiming to make measurable and significant improvements in reading outcomes for students in Grades 1-3. Lecture Pour Tous targets three outcomes to achieve this goal: Outcome 1 is early grade reading instruction in public primary schools and Daara improved; Outcome 2 is delivery systems for early grade reading instruction improved; and Outcome 3 is parent and community engagement in early grade reading improved. The program strives to achieve these outcomes though a comprehensive approach including evidence-based teaching and learning materials, teacher training and coaching, student assessment, more time allocated to reading in the classroom as well as support for reading practice at home and in the community, and the use of national languages for reading instruction.

Lecture Pour Tous supports the operationalization of the MEN's education and training sector plan, the *Programme d'Amélioration de la Qualité, de l'Équité et de la Transparence* (PAQUET), which emphasizes the importance of early grade reading, use of national languages, and improved teacher practice. In their recent education policy document entitled *Lettre de Politique Generale Pour le Secteur de l'education et de la Formation*, (LPGS-EF 2018-2030), the ministry of education identified a number of axes for action including "the development of bilingual strategies based on the national languages" (p,6) (Republic of Senegal, 2018). With this in mind, it is anticipated that the MEN will introduce the use of national languages (generally the children's first language, or L1) for instruction in the early grades and the subsequent transition to French as the second language (L2). This would include transferring over of reading skills gained in L1 to L2. Lecture Pour Tous is supporting the *Direction de l'Enseignement Elémentaire* (DEE) with the early grade literacy (reading and writing) aspect of this endeavor, including with the introduction of updated, evidence-based teaching and learning strategies for reading and writing.

The USAID contract for Lecture Pour Tous requires the program to "collect baseline data on teacher attitudes, practices and skills in early grade reading instruction" (USAID/Senegal All Children Reading Task Order, p.33). The contract further states (idem) that "at a minimum, baseline data should address the following concerns:

- Time-on-task in early grade reading, to understand exactly how much time each day students in all program intervention areas are receiving practice in reading;
- Teachers' language use patterns in classrooms (relevant to providing instructional guidelines for reading instruction); and
- Teachers' pedagogy in the reading classroom (relevant to providing instructional guidelines for reading instruction)."

In order to be able to monitor and evaluate change over time and use later findings to continuously inform teacher training and professional development practice and policy, Lecture Pour Tous additionally plans to conduct this study at program midline and endline.

This report presents the findings of the Lecture Pour Tous baseline study of teacher knowledge, attitudes and practice (KAP) from data collected in targeted regions in 2017 and 2018 before program interventions began. This report is the complete and final "Version B" of this baseline study that includes survey data from all six regions targeted by Lecture Pour Tous. ("Version A" of the baseline study report including survey data only from the first four regions participating in the program.)

## 1.2. Rationale

The KAP study was designed to provide information related to aspects of knowledge, attitude and practices of teachers that would in turn have an effect on teaching in the classroom and learning of children. KAP surveys reveal strengths related to teacher knowledge and practice that we can build on as well as misunderstandings, lack of knowledge and skills that could potentially represent obstacles to the activities that we would like to implement in the classroom. Information on teacher attitudes is of particular use as it helps to identify potential barriers to behavior change on the part of teachers needed to implement new approaches to the teaching of reading.

The results of the KAP survey by Lecture Pour Tous described here will be used to identify needs and challenges to the effective delivery of the program as well as point to solutions to improve program interventions and inform MEN policy and design of pre-service teacher training, in-service teacher training, and continuous professional development for teachers.

## 1.3. Objectives

The overall teacher KAP study has two purposes:

1. To assess the following in order to inform program interventions and MEN policy:

   a. teachers' knowledge about evidence-based reading instruction, including reading instruction using national languages

   b. teachers' attitudes towards reading instruction and in particular reading in L1 as well as attitudes related to their own reading practices

   c. teachers' practice in teaching reading as measured by both self-reporting and observed actual practices in the classroom[1]

2. To compare teachers' knowledge, attitudes and practice at the outset of the program with any changes to be measured at the midline and endline of the program

The overall aim will be to use the information collected to provide a feedback loop into improved interventions strategies and policies that reflect the realities of the local context and the cultural and linguistic factors that influence them, enabling the program to plan activities and advise policies that are targeted and suited to the specifics of the sociolinguistic and educational context of Senegal.

## 2.1. KAP Study Approach with Two Components

Many KAP studies consist either of questionnaire surveys or of classroom observations followed up by interviews. In other words, in the first instance, they are based on self-reporting and there may thus be a considerable gap between what teachers say they do and what they actually do in practice. In the second instance, teachers know the purposes of the observations and there are concerns that they may then respond in a way that is expected of them.

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[1] In the future, it is expected that knowledge of and skills in the national languages will also be tested.

In order to overcome these limitations, we adopted a mixed methods approach. Mixed methods research is a methodology for conducting research that involves collecting, analyzing and integrating data in different ways. This approach to research is used when this integration provides a better understanding of the research problem than one approach only.

Component 1 consisted of a questionnaire administered to teachers to collect their self-reported assessment of their own knowledge, attitudes and practices. The data from this survey were analyzed and the results fed into Component 2, consisting of classroom observation where the actual practices, as opposed to the reported practices, could be observed. The two components of the study are complementary. In some cases, they provide answers to the same questions but through different methodology, allowing for triangulation. For example, use of national languages was investigated through both the questionnaire and classroom observation. The data from both sources paint a better picture of both teachers' perception and actual use of L1 in teaching. The same is true for other aspects of practice related to reading instruction and time on task.

# 2. LITERATURE REVIEW
## 2.1. Challenges of Teaching Literacy

Research from around the world demonstrates that literacy is fundamental to success in the formal education system and forms the foundation of learning in all subjects. In Senegal as in most countries, much of what is learned in school starting as early as second grade is learned through the written word, and for this, children must be able to read.

One particular challenge for reading proficiency in Senegal is that as in many traditional societies, interactions are based on oral as opposed to written communication and reading is often seen as something only related to school. The social nature of an oral tradition can stand in contrast to reading, which is often viewed as a solitary activity (Magara and Batambuze, 2005, Dike, 1995, Machet, 2002, Nalusiba, 2014).

Another challenge for most countries in Africa, including anglophone, francophone and lusophone nations, is the prevalence of many other languages that are spoken by the vast majority of children other than the official or dominant languages. This situation necessitates teacher knowledge of not only effective literacy strategies in the classroom, but also a mastery of two different languages and often bilingual education pedagogy. In Mozambique, for example, although teachers feel confident in making bilingual materials, they have a notable lack of confidence about the methodologies or best practice for teaching bilingual education in an effective manner (USAID, 2017). Teachers who have more positive attitudes about bilingual programs have more confidence about teaching in them (ibid).

Striving to achieve the Millennium Development Goals and Education for All which targeted universal primary school access by 2015 has not helped raise student performance levels except in cases where the teaching and learning process happening in the schools is effectively helping children to read. This means that teacher training programs need to emphasize the practicalities and techniques required to effectively help children become literate. Children who do not learn to read tend to drop out at much higher rates or become "silently excluded" – ignored and passed through the system, only to not have the skills needed to succeed in the higher grades. Low teacher knowledge and practice of and evidence-based pedagogy negatively affects student learning. And while new teachers may leave pre-service training with some good strategies to implement, once these new teachers become integrated into

schools populated with more experienced teachers who are not as open to new ideas, past research has shown that these the new teachers often let go of the newer techniques they learned in favor of the older methods their mentors at school (other experience teachers, school directors, and inspectors) are using and are more comfortable with.

In the context of this overall situation of the challenges of literacy in Africa, the following overview of the literature on teacher knowledge, attitudes and practices regarding reading sheds light on this subject and formed the foundation for conducting a teacher KAP study in Senegal.

## 2.2. The Role of Knowledge in Teaching Reading

The ability to read – as well as knowledge of how to teach reading – varies greatly amongst teachers throughout the African continent. In a study by Beitenbeck et al (2015) involving 13 countries in Africa it was found that teachers with the highest subject knowledge of reading were found in Seychelles, and the lowest in Zanzibar (Beitenbeck et al. 2015). This variation greatly affected student performance, and also teacher practice, as those with lower skills generally use poor pedagogy.  The study also emphasized that standard teaching qualifications in themselves were found to have very little impact on student performance. Unfortunately, too many teachers have a limited ability to read themselves and have not been trained sufficiently to be able to teach their students effectively how to read. In turn, these teachers often do not encourage students to read as the teachers themselves struggle with how to go about teaching reading. This causes a widespread lack of commitment, creativity, innovativeness and resourcefulness among head teachers and teachers.

In many countries there is also a wide disconnect between pre-service teaching preparation and the official curriculum – or, on the other hand, curriculum that is outdated compared to newer methods taught in pre-service training. As a result, teachers begin their careers ill-equipped to teach effectively or struggling to align with the official curriculum and texts, and soon revert to how they themselves were taught, as opposed to what the curriculum or new reforms stipulate (Akyeampong et al., 2011; USAID, 2014; MacKenzie et al., 2011). As a result, many teachers becoming certified as teachers without ever learning how to teach reading. For example, Moroccan teachers receive little or no specialized training in reading instruction and the assessment of students' reading skills, leaving them ill equipped to enable students to succeed in the first years of primary school (USAID, 2014).  Weak knowledge of phonics in Anglophone countries, along with no knowledge of a range of other decoding and comprehension strategies known to help beginning readers read, have left many teachers at a disadvantage (Akyeampong et al 2012).

This lack of preparation also includes the explicit teaching of the ability to teach bilingually. In many African countries, although the official curriculum is to use mother tongue in the lower grades, teacher trainees are only taught how to teach in the dominant language – French, English or Portuguese (Bloch, 2013). This results in a limited ability to teach bilingually. For instance, in Mozambique, although teachers could speak their native language fluently, on average those teachers could only write five out of ten words correctly that were dictated to them (USAID, 2017). Teachers need training to be able to have the ability to correctly read and write in their mother tongues.   They also need explicit training in how to teach reading in that language.

## 2.3. The Role of Attitudes in Learning to Read

### *Attitudes towards reading*

A positive attitude towards reading has a positive correlation with the ability to read, Therefore, positive attitudes to reading should be cultivated early. More reading results in more vocabulary learned, and high vocabulary is positively correlated with student performance (Okebukola, 2007, Okebukola et al. 2013, McKool and Gespass, 2009).

Ninam (2003) noted that teachers should clearly model a positive attitude towards reading and show their students their love of and interest in it, in order to encourage their students to read. Reading aloud to children is one such effective strategies for connecting children to books because "the more you read to them, the better they got at it (i.e. reading) and liked it" (Trelease, 2005). In addition to using effective methods to encourage good reading habits, the teacher's attitude and enthusiasm towards reading, as well as their engagement with children through conversations and discussions, were proven to play a key role in encouraging and motivating the reading habits of their students. This is especially important if the society as a whole has a poor reading culture.

Unfortunately, many teachers themselves do not read or consider reading pleasurable. Often, although they say that they enjoy reading and report thinking it is important, the reality is quite different. For example, in Swaziland, while most teacher participants in a study about reading attitudes said that they had a positive attitude towards reading, many also said that reading was not appropriate in a public place, and even that 'reading was hazardous to their health" (Lukhele, 2013).  It is interesting to note that this study in Swaziland showed that reading ability and vocabulary knowledge were correlated, but not attitudes and ability, probably because of the misrepresentation of attitudes shown by teachers towards reading. This, of course, is a global problem and not limited to Swaziland.

Unfortunately, this negative attitude towards reading contributes to the following challenges:

1. There is a lack of understanding of the importance of reading, and teachers then place a limit on their responsibility towards teaching students to read and merely "deliver the method" while placing the responsibility of actually learning how to read on the child. In the context of Uganda, Sanyu (1999) noted that teachers had a negative attitude towards reading and reading lessons. According to her, most teachers viewed reading as a leisure activity which children could do on their own, without teachers' guidance and support

2. Teachers who have low expectations of students' reading ability do not encourage them or help those who are struggling. As a result, those who know how to read continue to get better, and those who have had difficulties will continue to grow further behind; (Lewis, 2008, Akyeampong et al. 2011)

3. Drilling and repetition are seen as important strategies to acquire reading ability, and often no comprehension or reading for meaning strategies are taught. As many teachers consider text reading too advanced for small children, they often do not offer books to them to read. So, in practice, the whole comprehension component of reading is often left out;

4. Some teachers mask their lack of knowledge about teaching reading by showing a high level of self-efficacy, which creates in them an attitude that they "know it all," which prevents them from opening themselves up to learning new strategies, approaches or pedagogies to teaching literacy. In truth they consider themselves not equipped to try these new approaches and feel more comfortable blaming students' low capacity to acquire reading skills (USAID, 2014).

### Attitudes towards reading in mother tongue

The value placed on a given language determines the attitude towards that language and the way that language is used in various ways and situations. Research shows that the attitude to teachers towards mother tongue can affect the way teachers teach.

Despite policy to the contrary, in a 2014 study in Kenya found that only 6% of teachers thought it was best to use mother tongue in early primary including to teach reading. Reasons given were that teachers indicated that if learners were exposed to the language (in this case, English) earlier, this was to their advantage as they had longer to learn. They also stated that since all examinations were set in English learners would perform well if they knew English well, while some were of the view that English has a wide range of vocabulary and enables the teacher to teach without having to search for the right terms to use in the lesson. A further reason that Mother Tongue was felt to be inappropriate was because learners cannot use it to communicate with people from other communities or internationally. In an interesting study in Uganda (Becker 2013) found that teachers had generally supportive attitudes to the use of the mother tongue particularly in rural communities but would choose to have their own children educated in English rather than mother tongue if they could. After a six-year project that showed successful outcomes for children learning in mother tongue in Nigeria, student teachers still held negative attitudes towards the national language and favored English while going through the motions of teaching in mother tongue (Ejieh, 2004).

More worryingly teacher attitudes can also affect the attitudes of parents towards learning to read in mother tongue. Parental attitudes in turn affect the child's attitude to reading (Timkey, 2015). However, although teachers' beliefs are enduring and often difficult to change (MacKenzie, et al., 2011), they can be changed through well-targeted interventions that both motivate and aim to change teacher practice.

### Teacher practice

Attitudes have been shown to have a direct affect on teacher practice in the classroom. However, in many instances there is a large disconnect between the teachers attitudes and how they say they teach and what they actually practice (Kaymakoglu, 2018). In Morocco, teachers reported that they use effective pedagogies for teaching reading during extra time devoted to this, but it was observed that during those times most children were talking or sleeping, as the teacher was not connecting phonics to reading in an interesting and relevant manner. The teachers' stated agreement with child-centered methodologies stands in stark contrast to the teacher-centered practices used to teach reading (USAID, 2014). This was also true in Mozambique, where the teachers' perceived prowess in pedagogies was not corroborated by outside observation (USAID, 2017).

Another example of the lack of correlation between perceptions and practice is shown in the practices used to teach reading in study by SIL International. Although many teachers interviewed stated the importance of the teacher reading and knowing a variety of strategies for making sense of the words and reading out loud in the classroom, in practice reading out loud was the least common strategy used by those in the study (Trudell et al, 2012).

Other practices detrimental to reading include the fact that many education systems are specifically exam-oriented, which leaves students with the idea that reading is only useful for passing a test but not something that is enjoyable, to gain knowledge or to help them think creatively. A lack of books, and/or provision of only textbooks does not help children to choose reading material that is interesting, and therefore enjoyable, to them. In some countries, such as Uganda, although there are books, teachers are very protective of them so will now allow them to be placed in the students' hands, for fear of

defacement (ibid). The lack of reading time and reading aloud time is instead replaced by talk and chalk, memorization, and lecture-driven classes, which do not engage students' interests and ultimately leads to student enrolment outpacing student achievement (ibid).

When teachers are truly enthusiastic about reading, as corroborated by observation, not just self-perception, their enthusiasm for reading and learning to read carries over to their students. They place great importance upon learning to read and use a varied number of strategies to help their students learn. They also transmit this enthusiasm and love of learning to their students, especially through reading aloud often to them (Schmitt, 2009).

It is important to find out about teachers' own practices in terms of learning to read. A study from Swaziland found that teachers first need to be empowered to read so that they in turn can encourage reading in their students. "Teachers' beliefs about literacy can [thus] be understood as including what they assume, think, and know about how young children develop literacy skills; what they perceive a teacher's role in this process to be; and how they feel they should implement these practices in the classroom" (Hindman & Wasik, 2008, p. 480).

One worrying fact related to teacher practice identified in the World Development Report of 2018 is the high level of absenteeism of teachers in sub-Saharan Africa in general.  The study looked at several countries but found in Senegal that on a given day when a visit was unannounced, nearly 20% of the teachers surveyed were absent from school while a further 8% had come to school but were not actually going to teach their classes (Brookings Institute, 2018).  Research from other contexts shows that opportunity to learn which includes teacher's presence in the classroom, children's presence in the classroom, availability of materials and time on task is correlated with scores on EGRA (Adelman et al. 2011).  Apart from Opportunity to Learn, classrooms with the most effective literacy teachers are characterized by commonalties (high academic engagement, effective classroom management, and explicit teaching of skills).

Since teachers play a pivotal role in providing children with opportunities for literacy learning, their practices, attitudes and beliefs directly and indirectly impact upon children's reading outcomes.  For these reasons, a teacher KAP study is indispensable to help Lecture Pour Tous interventions and related policy be based on evidence related to actual knowledge, attitudes and practice of teachers in Senegal.

# 3. METHODOLOGY

As previously stated, the KAP study adopted a mixed methods approach. This is based on both professional and academic research showing that monomethod research can be improved through the use of multiple data, research methodologies, perspectives, standpoints and paradigms (Creswell, 2014, Johnson & Christensen, 2014).

The USAID contract for Lecture Pour Tous recommends making use of or adapting existing instruments for the KAP survey, and a first stage in the design of the research was to examine what had already been done.  While there have been previous studies looking at teacher practice in Senegal, a preliminary review of these shows that the research was primarily to study teacher attitudes towards reading through examining the results of teacher self-reflection after observation.  However, where possible, we did make use of existing survey instruments including items from the USAID Mozambique study as well as making use of parts of the OPERA study with kind permission of the authors.

## 3.1. KAP Component 1 Methodology

As previously mentioned, teachers' beliefs play a significant role in shaping their instructional behaviors and thus what students learn (Turner et al. 2009). It is therefore important to examine the characteristics of their beliefs as well as the content and nature of their attitudes both towards reading in general and towards reading in the mother tongue in particular. We also wanted to look at teacher knowledge as measured by self-reporting. The key research questions for the survey component of the research were:

- What are teachers' beliefs and attitudes towards teaching and learning reading, particularly in national languages and French?

- What is teachers' level of knowledge in terms of knowledge about reading and how children learn to read?

- How do teachers report their actual practices in the classroom in terms of what they do to support children's reading?

### 3.1.1. The Sample

The large-scale survey conducted as Component 1 of the teacher KAP baseline study was administered over two time periods: the first one in October 2017 in the regions of Kaolack, Fatick, Kaffrine and Matam, which were the first regions to participate in the Lecture Pour Tous program; and the second in November 2018 in the regions of Diourbel and Louga, which joined the program in its second year of implementation at the classroom level. There was no opportunity to survey all teachers in Diourbel and Louga at the same time as the first regions, ie before teachers convened for training in those new regions.

The KAP baseline survey was administered to CI teachers prior to teacher training and materials distribution supported by Lecture Pour Tous in the respective targeted regions. The first cohort of targeted teachers in the regions of Kaolack, Fatick, Kaffrine and Matam were surveyed on the first day of their initial training, before any sessions had taken place. Although the program targeted just over 1100 teachers in the four regions for the first cohort, not all teachers arrived in a timely fashion at the outset of the training and a number of the questionnaires were spoiled or incomplete and could therefore not be used. Still, 851 teachers successfully participated in this baseline survey during this first phase.

Using the same tools used in Kaolack, Fatick, Kaffrine and Matam and following the same methodology, the project conducted a second baselines for the regions on Louga and Diourbel, where 597 CI teachers successfully filled out the questionnaire. The main reasons for the addition of these two regions were the following:

- To allow for a more thorough comparison between the 6 regions given that data for Component II of the baseline had been collected from the 6 regions.

- To set the baseline for the regions of Louga and Diourbel for future tracking and evaluation of achievements/challenges in the implementation of the activities in the two regions;

The survey participants by region are broken down as follows, with a total of 1448 respondents with viable questionnaires:

Table 1: Teachers by region participating in KAP Component 1 baseline survey

| Region | N |
|--------|------|
| Kaolack | 302 |
| Fatick | 190 |
| Kaffrine | 178 |
| Matam | 181 |
| Diourbel | 224 |
| Louga | 373 |
| Total | 1448 |

### 3.1.2. Tool Development and Testing

Since attitudes are notoriously hard to measure as they are by nature internal, a standard way of measuring these is through the use of anonymous self-report surveys (Annex 1).

In developing the survey instrument, we went through the following stages:

1. Literature review to look at what had already been done. Lecture Pour Tous started by looking at work carried out to date related to teachers' knowledge, attitudes and practice related to early grade reading in the L1 (see literature review).

2. Close examination of the modules for teacher training, teacher guide and student materials. Although teachers had not yet received training at the time of the administration, we wanted to examine what their desired behaviors were as reflected in materials in order to align

3. Based on the above, we listed the variables chosen for analysis (See 4.2. below)

4. Questionnaire drafting. This included a list of closed responses These consisted predominantly of a 5 point Likert Scale as well as a small number of open-ended responses

5. The questionnaires were then peer reviewed and went through a number of modifications as a result.

### 3.1.3. Variables Chosen for Analysis

1. Independent variables related to teachers including:
   a. Gender
   b. Age
   c. First language
   d. Place of work (current year and previous years)
   e. Level of class taught (current and previous year
   f. Number of years of experience
   g. Previous training
   h. Professional status

2. Dependent variables including:
   a. Self-evaluation of their knowledge of the teaching and learning of initial reading
   b. Self-evaluation of their level of reading, writing and speaking of national languages and French
   c. Self-evaluation of the ways in which they use national languages and French
   d. Attitudes and beliefs related to teaching reading

e. Self-report of their practice in the classroom
f. Self-reporting of ways in which they use evaluation
g. Self-reporting of ways in which they involve parents
h. Self-reporting of their use of national languages with their students
i. Self-reporting of the time spent on teaching reading and the activities engaged in
j. Self-reporting on remediation strategies used

### 3.1.4. Data Treatment

After cleaning of the data, a total of 1448 surveys were deemed to be fit for analysis. A template for data entry was developed and a team of data entrants spent four days entering the data. This was completed under the supervision of an expert in data treatment and analysis who verified the data entry at regular points. Data cleaning is centered around the treatment of missing and inconsistent data also took place at this point.

The codes and data analysis which would be required were also defined and terms of reference for a psychometrician / data analyst were developed. Data was entered into SPSS and basic frequencies were calculated prior to an examination of correlation between variables.

In terms of variables in the knowledge, attitudes and practices sections, the first question was to make a simple descriptive analysis. Then, for each variable selected, a bivariate analysis with was carried out to see the links between the variable of interest and the sociodemographic characteristics of the teachers. Correlations of statistical significance were noted. A cluster analysis was also performed in an attempt to see if any similar traits emerged across the population.

## 3.2. KAP Component 2 Methodology

### 3.2.1. Research Questions

Complementary to the large-scale KAP Component 1 self-assessment survey, KAP Component 2 was is based on classroom observation. As such, three research questions guided this component of the study:

a) What percentage of a classroom lesson time is spent on learning/teaching activities, classroom management activities or time off task?

b) What are the language use patterns in class?

c) What are the patterns of teacher practice in class in relation to early grade reading learning?

To answer these questions, several steps were followed including the selection of a sample of schools/teachers, the development of tools, the training of data collectors, and conducting data collection, cleaning and analysis. These steps are detailed below.

### 3.2.2. The Sample

We used purposive cluster sampling for this component of study. This non-probability sampling technique is characterized by the selection of the targeted cluster (schools in this case) in accordance to a number of parameters, the first of which was the requirement that these be schools where Lecture Pour Tous programming had not yet begun. Schools were then selected randomly while ensuring that key school characteristics present in the population of schools targeted by Lecture Pour Tous were also present in the sample. Two daaras were included in the initial sampling frame, tho in the end only one participated. At the school level, all CI, CP and CE1 teachers were selected. The sample was much smaller than the large-scale survey of Component 1 in order to be able to spend the time needed to

"collect detailed information from this sample, while in quantitative research [such as the Component 1 survey], a large N is needed to perform meaningful statistical tests " (Creswell, 2014, p269).

The study team initially selected 20 schools and 2 daaras from the four regions of Fatick, Diourbel, Kaffrine, and Matam, as a rough sampling of the six regions that Lecture Pour Tous will target over the course of the program. This represents 1% of the total number of schools in the four regions as listed in Table 2 below. The sample was taken from schools, daaras (and regions) that had not yet received any Lecture Pour Tous interventions. The sample estimated that 3 teachers would be observed at each school, one teacher per grade-- CI, CP and CE1, giving a potential total of 66 teachers. The study team also selected replacement schools in case field work was not possible in some schools.

Several considerations were taken into account when selecting these regions. The first of these was language use, to ensure that data collection in areas where the program's three targeted national languages – Pulaar, Sereer and Wolof – are widely spoken. Secondly, all areas were slated to participate in Lecture Pour Tous. Thirdly, they represented a variety of socio-economic contexts within the greater zone of regions targeted by the project. Finally, the four regions offered a variety of school types present in the general population of schools: rural and urban, traditional and Franco-Arabic, single and double shift schools and multi-grades.

In practice, the study was conducted in 21 schools: 18 traditional schools representing 1% of the total traditional schools, 2 Franco-Arab ones, representing 2% of this category of schools, and 1 Daara. Overall, 57 teachers were observed which represents 91.9% of the number of the 66 initially sampled teachers. In each class, two lessons were observed except in two classes in Matam where only one lesson each was observed. The total number of lessons observed is 112 lessons. Priority was given to "Reading (*Lecture*, a subset of "*communication écrite*")[2]" lessons, but scheduling and logistical challenges made it not possible to observe only such lessons.  47.32% of the observed lessons were reading, followed by Other at 22.32%. Composition (*production écrite*) came in third with 16.96%.

Table 2: Number and percent of observed lessons, by subject

|  | Diourbel | Fatick | Kaffrine | Matam | Total | Percent |
|---|---|---|---|---|---|---|
| **Reading[3]** | 12 | 18 | 8 | 15 | 53 | 47.32% |
| **Writing** | 0 | 4 | 4 | 1 | 9 | 8.04% |
| **Composition** | 6 | 9 | 0 | 4 | 19 | 16.96% |
| **Other (See Table 3 below)** | 4 | 5 | 8 | 8 | 25 | 22.32% |
| **Unknown subject (missing data)** | 2 | 0 | 0 | 4 | 6 | 5.36% |
| **Total** | 24 | 36 | 20 | 34 | 112 | 100.00% |

Under the "Other" category, lessons such as "Speaking", "Conjugations", "Numeracy" and "Vocabulary" constituted 70% of the "Other" lessons. Table 3 below lists the types and percent of these lessons.

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[2] To ensure appropriate reference to lessons, they are referred to in English and French.

[3] For a list of the corresponding lesson titles in French, which were taken from the weekly timetable and the CEB guide, please see Annex 2.

Table 3: Number and percent of observed lessons under the category of "Other", by subject

|  | Lesson 1 | Lesson 2 | Total | Percent |
|---|---|---|---|---|
| **Speaking** | 4 | 2 | 6 | 22% |
| **Conjugations** | 0 | 6 | 6 | 22% |
| **Numeracy** | 0 | 4 | 4 | 15% |
| **Vocabulary** | 3 | 0 | 3 | 11% |
| **Measurement activities** | 1 | 1 | 2 | 7% |
| **Grammar** | 1 | 1 | 2 | 7% |
| **Geometric activities** | 0 | 2 | 2 | 7% |
| **Language activities** | 0 | 1 | 1 | 4% |
| **Spelling** | 0 | 1 | 1 | 4% |
| **Total** | 9 | 18 | 27 | 100% |

The percentages of the types of lessons observed did not vary greatly among regions. Graph 1 below compares such percentages for all regions and each region individually.

Figure 1: Percent of observed lessons by subject (all regions and by region)



Percents of observed lessons by subject (all regions and by region)

- ■ Reading (lecture)
- ■ Writing (Ecriture)
- ■ Composition (Production Ecrite)
- ■ Other (Autres)
- ■ Unknown subject (missing data)
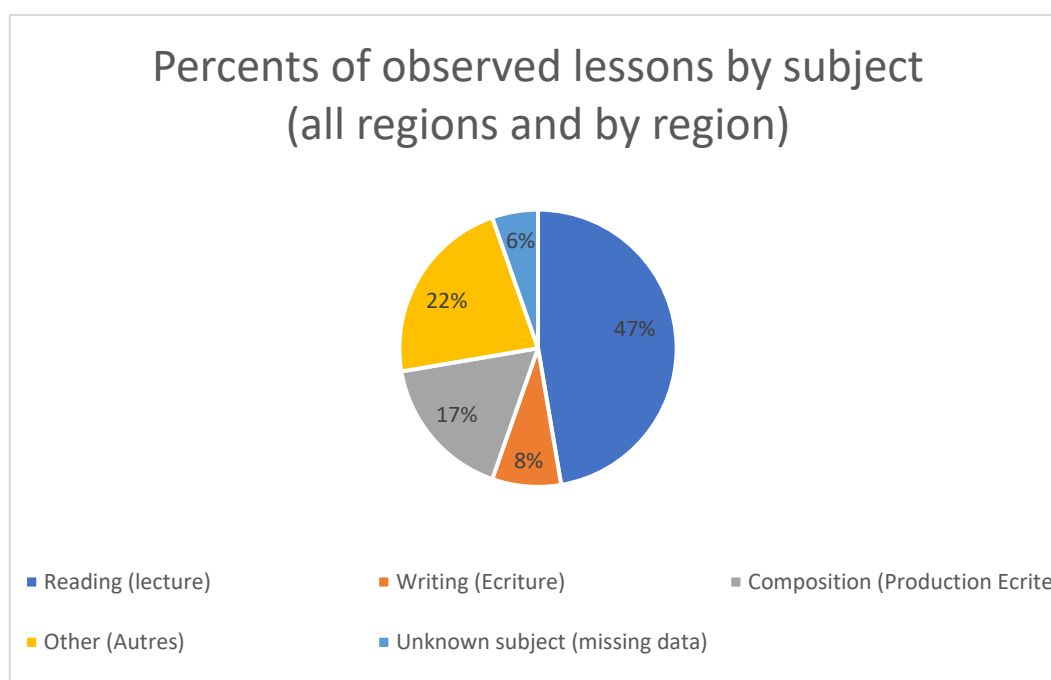
The majority of the observed lessons were "Reading" lessons. Not all schools had all three grade levels. Consequently, the number of lessons observed varied slightly with more CE1 classes observed (39 lessons), representing 34.82% of the lessons. This was followed by CI classes (38 lessons), which is 33.93% of the observed lessons, then the CP classes (35 lessons) with a percent of 31.21%. Classroom observation took place in only one Daara in Matam. It was not possible to visit a Daara in Diourbel.

Figure 2: Number and Percent of lessons observed, by grade level
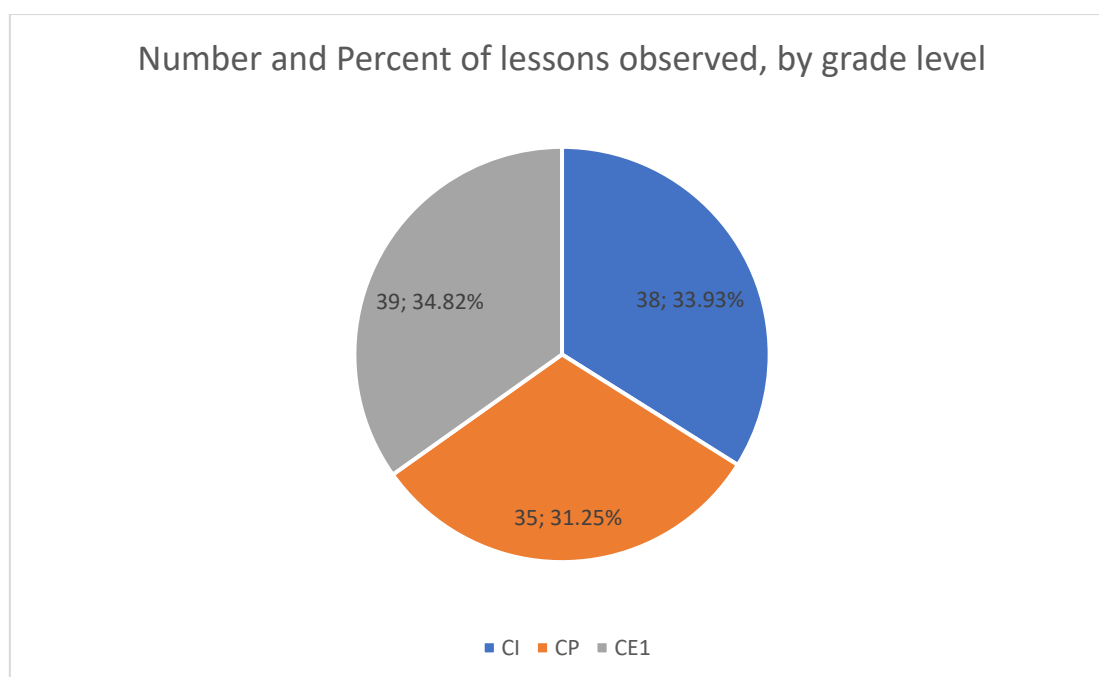


Below in Table 4 is the break-down of the number and percent of lessons observed by grade level and region.

Table 4: Number of lessons observed, by grade level and region

| Grade | Diourbel | | Fatick | | Kaffrine | | Matam | | Total | Percent |
|---|---|---|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | N | % | N | % |
| CI | 8 | 33.33% | 12 | 33.33% | 8 | 40.00% | 10 | 31.25% | 38 | 33.93% |
| CP | 8 | 33.33% | 12 | 33.33% | 4 | 20.00% | 11 | 34.38% | 35 | 31.25% |
| CE1 | 8 | 33.33% | 12 | 33.33% | 8 | 40.00% | 11 | 34.38% | 39 | 34.82% |
| TOTAL | 24 | 100% | 36 | 100% | 20 | 100% | 32 | 100 | 112 | 100% |

### 3.2.3. Tool Development and Testing

The study team developed several iterations of the Component 2 questionnaire and observation tools (Annex 3) with feedback from both the field and home offices before testing them in training. Several studies and existing tools have been consulted such as the RTI 2016 study conducted for UNESCO on *Measures of quality through classroom observation for the Sustainable Development Goals: lessons from low-and-middle-income countries,* the RTI and VarlyProject (2014) entitled *Research on Reading in Morocco: Analysis of Teachers' Perceptions and Practices,* and the OPERA (2015) study.

The version used for data collection was reviewed and finalized locally with the field team following the pilot testing. Apart from slight school/grade identification questions, the tools used for the three grades were identical. Each tool consists of four sections:

- *Section 1 related to the context*. In this section, data was collected through a set of questions about the region, the school, the type of class, and the teacher.

- *Section 2 provides information about the class to be observed*. A 13-item questionnaire allowed data collectors to provide information about the class composition by sex, the lesson to be observed and the teaching and learning support available in the classroom.

- *Section 3 is based on Stalling's methodology* (World Bank Group, 2017). In this section, data is collected through classroom observation in time lapses of every two minutes. The first minute was used for observation and the second for recording/filling in the form. The section covered two main aspects of classroom practice: time on task and language use in class.

- *The fourth section of the tool consisted of observations of: the content of the lesson, teacher's practice in class, materials used in class, and students' interactions*. This section was also timed. Data collectors observed a lesson in three 10-minute periods. They filled in the forms as they observed for each of the three 10-minute periods.

The tools were piloted before using them in data collection. Piloting took place at Ibra Seck School in IEF of Rufisque Commune. Two data collectors observed three classes - CI, CP, and CE1. The purpose of the testing was to pilot the tools with three different teachers at the same three grade levels of the study, to test the clarity of the questions, and to test the process of a classroom observation especially in terms of the collaboration between two data collectors during a lesson observation. The results of the piloting were analyzed and modifications to the tool made.

### 3.2.4. Training of Data Collectors

Sixteen Inspectors from the IEFs and CRFPEs of Kaolack, Fatick and Dakar served as data collectors for the teacher KAP Component 2.  The training was conducted in May 2018 in Dakar, including the inspectors and three Lecture Pour Tous staff members. The training focused on five main elements:

- to provide the participants with a presentation of the project, its objectives, and the context for the KAP Component 2 study,

- to present and study the KAP Component 2 data collection instruments, their rational, and the type of information the study is planning to collect.

- to present key elements of qualitative data collection using observation instruments;

- to provide the participants enough time to practice using the tools

- to familiarize them with the process of data collection –what and what not to do, the steps to follow etc.

### 3.2.5. Data Collection

Data collection took place from May 14 to 18, 2018. Data collectors were divided into teams. In each region, two teams of two members were created. Each region had one supervisor who was in contact with the study team. In each classroom observation, two data collectors observed and filled in different parts of the tool. As all data collectors had been trained on observing and filling every part of the tools, the division of work, i.e. who fills which parts of the tool, was left to the team itself. It was not possible, however, that one data collector fills all parts.

The team of two data collectors filled sections 1 and 2, i.e.  the context, and the information about the class before the start of the lesson. After the start of the lesson, one data collector filled Section 3, and the other filled Section 4. As listed above, Sections 3 and 4 are timed, and focus on different themes, hence the necessity to use two separate data collectors at the same time.  In each class two lessons were observed. There was a break between each lesson observation.

### 3.2.6 Data Treatment and Analysis

Data treatment and analysis followed a standard process of data entry, data cleaning, and data treatment and analysis. At the end of data collection, each supervisor collected the forms from the different regions which were secured in Lecture Pour Tous offices. The study team designed data entry forms in Excel to enter data from the collected forms. Data entry consultants were trained on how to enter such data. Lecture Pour Tous staff and the study research team conducted supervision and review of the data to ensure reliability and accurateness of the data entry.

Using Excel, data was analyzed by section (see Tool Development and Testing above for the different sections). Analyzing data in Sections C and D was challenging as we had collected data 15 times for each item in Section C (Time on Task and Language Use in Class), and 3 times for Section D (Teacher/Student Practices and Materials Used in Class). Data from each observation point (such as minutes 1,3,5,7 though to 29 in Section C) had to be entered separately, then tallies per item per each observation points generated. This allowed for accounting accurately for all entries. Alternatively, each item had to be entered separately 15 times, which is not efficient.  For similar studies in the future, it is recommended that data is collected electronically for efficiency and effectiveness of data treatment.

Percentages and frequencies were generated to interpret the data and, in some cases, additional inference analyses were conducted such as t-test.

## 3.3. Limitations

As with all research of this nature, there are inevitable limitations. One key limitation of the teacher KAP baseline study is the length of the questionnaire used for Component 1.  While the extent of the questions asked during this part of the survey meant that a great deal of rich information could be collected, the length may have led to questionnaire fatigue and 24 of the 937 surveys (2.56%) could not be used because they were incomplete or wrongly completed.  However, this incompletion rate is better than many surveys, particularly considering its length.  The incomplete or incorrect questionnaires were eliminated before the main data treatment and cleaning. Furthermore, it may be that the level of French language of some teachers was insufficient to fully or accurately understand the questions (personal communication[4]) although only about 4% of teachers reported finding it difficult to read in French. It is thus possible that there is an element of selection bias in the results, by where the teachers weakest in French or with lower skills generally were those that did not complete the survey and thus were not counted among its results.

Self-reporting questionnaires are also particularly prone to the halo or Hawthorne effect where the respondent answers in a way which shows them in a good light but that might not necessarily be 100% truthful. This appeared to be the case with the teacher KAP survey where, as compared to observed practices, there may have been some instances of over-estimating one's own knowledge or skills.[5]

There were also limitations for KAP Component 2.  One key limitation relates to the sampling for this component. We opted for purposive sampling of schools with a smaller number of teachers as opposed to statistically representative sampling. With over 4000 public schools in the six regions, sampling and observing individual teachers in a sample representative of the entire population of CI, CP and CE1 teachers would have required substantial investments in terms of cost and time that the project could not afford. This means that the Component 2 data provide important insights into teacher practice

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[4] Personal communication from senior Ministry official

[5] For example, some teachers reported having full knowledge of techniques which were only taught during the training and which they are unlikely to have learned about through other means.

across a purposive array of school and teacher variables (urban/rural, class level, etc.) but findings cannot be statistically extrapolated to the full population of teachers targeted by Lecture Pour Tous.

Another limitation was the inclusion of "*observe le silence*" item in the third section of the tool. Initially, the item was included to account for time when teachers/students were quiet, and no teaching/learning was taking place. During testing, this item did not raise major flags. However, when all the data was collected, it became clear that it was a confusing item. First, the reason for "silence" could not be easily attributed to one thing. For example, it was not clear if silence was attributed to the fact that teachers and students were engaged in another activity, such as writing on the board, reading etc., or just because the teacher and students were silent for a short period of time. Second, the way responses to the item were recorded indicated, i.e. silence was reported *consistently* in every minute of the observation, it was clear that the item did not serve its purpose. The item and its entries were removed from the analysis knowing that with every action the teacher/students took, there was some silence included. We believe this did not have a negative effect on the results of the study.

A third limitation is the fact that classroom observation as a data collection method may influence teachers and students to change behavior in class. To lessen its effects, the research study team trained the data collectors on proven techniques known to reduce this influence on observed behavior, including not interfering in the lesson, not to have eye-contact with the teacher and to focus on the activities. Before the observation, teachers were also informed of the objectives of the observation and the fact that they were not being evaluated, which, the team hoped, would make the teachers more at ease and not change their behavior.

Another limitation is related to the types of lessons observed during data collection. 72.32% of the lessons were related to reading and writing--"Reading" at 47.32%, "Writing" at 8.04% and "Composition" at 16.96%. 22.23% of the lessons were "Other Lessons" including "Speaking", "Conjugation", "Numeracy" etc.  In 5.36% of the lessons, the subject of the lesson was not reported. Apart from logistical considerations where it was not possible to observe reading-related lessons in the timeframe of the data collection and within budget, the study team decided that the observations of "Other" lessons would be helpful in that they would provide a more complete picture of language use in class across a variety of subjects. While the general focus of the study is on reading, an important part of the study focuses on language use among teachers and/or students, teachers' practices in class, and materials used in class. The reason for including this point in the limitations is because of the possibility that these non-reading-related lessons would not provide similar information to the study as reading-related ones.

A final limitation is related to the number of schools, by type, participating in this study. as cited above, 18 traditional and 2 Franco-Arab schools and 1 Daara took part in this study. Given the relatively small number of schools (21), the Franco-Arab schools may have an oversized effect on the findings. The Franco-Arab schools of the study represent about 2% of the total number of Franco-Arab schools in the four regions of the study, while the 18 traditional schools represent about 1% of these schools in the same regions.

## 3.4. Ethical Considerations

Both components of the KAP study followed the usual ethical standards in research of this nature in order to respect consent and confidentiality.  Respondents were informed of the purpose of the research, they were assured that their responses would be anonymous, and results would be reported only aggregated with others.  Respondents were given the option to opt out of the survey, and their consent sought.  All written data was kept securely.

# 4. RESULTS

## 4.1. KAP Component 1 Baseline Results

### 4.1.1. Demographic Data

As noted above, the questionnaire was administered to teachers of C1 from Fatick, Kaolack, Kaffrine and Matam in baseline 1 and subsequently to C1 teachers from Louga and Diourbel. Below is a breakdown of the participants in the study per region.

Table 5: Teachers by region KAP Component 1

| Region | N | Percent |
|--------|-----|---------|
| Kaolack | 302 | 20.86% |
| Fatick | 190 | 13.12% |
| Kaffrine | 178 | 12.29% |
| Matam | 181[6] | 12.50% |
| Diourbel | 224 | 15.47% |
| Louga | 373 | 25.76% |

The proportion of teachers from each region roughly reflects the proportions of teachers targeted by the program in the various regions.

Table 6: Teachers by age group

| Age Groups | N | Percent |
|------------|-----|---------|
| 19-27 | 139 | 9.48% |
| 28-36 | 767 | 52.32% |
| 37-45 | 444 | 30.29% |
| 46 and over | 116 | 7.91% |

The teachers in the sample were shown to represent a fairly young workforce with a mean age of 35 as well as a median of 34 (i.e. half of the sample are 34 or under). Over the half of the sample is in the 28 – 36 age group. Only 7.91% of the sample are aged 46 and over. The vast majority of teachers (79%) work in a rural environment.

Table 7: Teachers according to professional status[7]

| Professional status | N | Percent |
|---------------------|-----|---------|
| Contract Teacher | 612 | 41.80% |
| Assistant Teacher | 606 | 41.39% |
| Teacher | 246 | 16.80% |

A significant portion of the sample comprised contract teachers (nearly 42%) while only slightly less 17%

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[6] The total numbers do not include missing data.

[7] The Senegalese system at the time of the administration of the KAP included multiple types of teachers. Contract teachers are teachers who have acted as volunteers (vacataires) for at least two years and then are able to go through an application process to be contract teachers. Assistant teachers (Instituteur adjoint) are those teachers who have passed the Certificate Elémentaire d'Aptitude Pédagogique (CEAP), while teachers (instituteurs) are those teachers who have passed the Certificate d'Aptitude Pédagogique (CAP).

are on the permanent payroll as teachers and over 41% as assistant teachers (*instituteurs adjoints*).

Table 8: Teachers according to years of experience

| N of years of experience | N | Percent |
|---|---|---|
| 0-4 years | 265 | 17.98% |
| 5-9 years | 506 | 34.33% |
| 10-14 years | 488 | 33.11% |
| More than 15 years | 215 | 14.590% |

In examining the number of years of experience of the teachers, we can see that the sample shows relative inexperience, with more than half (52.31%) having less than 10 years' experience and only 14% having more than 15 years of experience.

Table 9: Proportion of teachers by size of class taught

| Average number of pupils in the class | N | Percent |
|---|---|---|
| Below 30 | 431 | 30.27% |
| 31-45 | 497 | 34.90% |
| 46-60 | 290 | 21.00% |
| More than 60 | 197 | 13.83% |

In terms of the number of students in the classes taught by teachers in the school year previous to the one that was beginning at the time of the survey (i.e. reported class size for the 2016-2017 school year), the mean size is 42 students/class, while the median is 39. However, over 34% of teachers reported having 46 or more students in their class, while nearly 14% are teaching classes containing more than 60 pupils[8]. This is much higher than internationally[9] set goals for primary school class size in developing countries, such as the goal of 40 set by the World Bank Group and 35 according to the Opportunity to Learn literature (Gillies and Quijada, 2008).

### 4.1.2. Self-report of knowledge of evidence-based teaching and learning of reading

As is common with self-reporting, teachers even at program baseline generally reported high levels of knowledge of teaching reading, with **4 out of 10 teachers (42%) stating that they are fully aware of the 5 components of reading**. Matam teachers reporting significantly higher knowledge than other regions with 67% of teachers reporting complete knowledge. At the other end of the spectrum is Kaolack, where only 29% of teachers reporting that they are fully aware of the 5 components of reading.

According to the self-report statements, **45.2% of male respondents reported having "perfect knowledge" against 36.9% of women**. More teachers in rural areas reported having "good knowledge" of the five components of reading as opposed to urban areas (44% vs. 36%).

In addition, **teachers' years of experience is correlated to a statistically significant degree with the level of self-reported knowledge of the 5 components of reading instruction. In general, <u>the less experienced teachers were statistically more likely than more experienced teachers to state that they knew the 5 components of reading</u>**. In fact, 46% of those with years of experience between 0 and 4 years of age, and 47% for teachers with 5 to 9 years of

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[8] The OECD average for this level of education is around 23. (OECD, 2015).

[9] These goals were originally set for Sub-Saharan African countries.

experience, said they are very familiar with these techniques. This proportion drops to 40% for 10-14 years of experience and 37% for those with more than 15 years of experience. **In addition, continuing professional development is strongly correlated with self-reported knowledge of the 5 components of reading**. 51% of those who reported having received in-service training related to reading also reported having "perfect knowledge" of these 5 components, whereas among teachers who reported not having had in-service training on reading, those reporting "good knowledge" is 36%.

Figure 3:  Distribution of teachers according to the self-reported level of knowledge of remedial techniques to help a child who has trouble reading 10
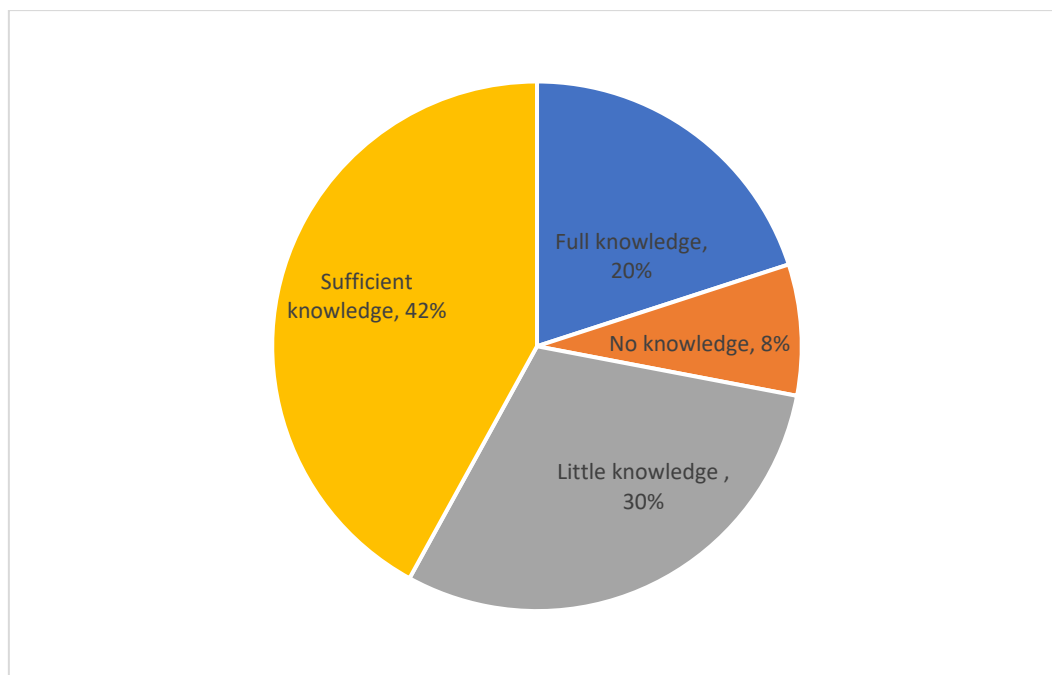


However, **only 20% of teachers reported having  "full knowledge" of remedial techniques to help a child who struggles with reading**. Men were found to be statistically more likely to have greater knowledge of these techniques than women (21% of respondents versus 18% of women).  A further interesting finding was that it was also **the least experienced teachers who reported having the greatest knowledge of remediation techniques** (20% of those with 0-4 years and 24% of those with 5-8 years versus only 8% for those with over 15 years of experience).

Regarding teachers' self-reported level of knowledge of teaching techniques of the phonics approach to reading (described in the questionnaire, which was in French, as the syllabic approach to decode words), 36% of teachers stating that their knowledge of this was "good" while 40% stated that their knowledge was "quite good."

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10 The legend in the charts has been translated from the French as follows: sufficient knowledge = *en connaitre assez*; full knowledge = *en connaitre tout à fait*.

Figure 4: Teacher distribution by self-reported level of knowledge of the phonics method of teaching and learning reading
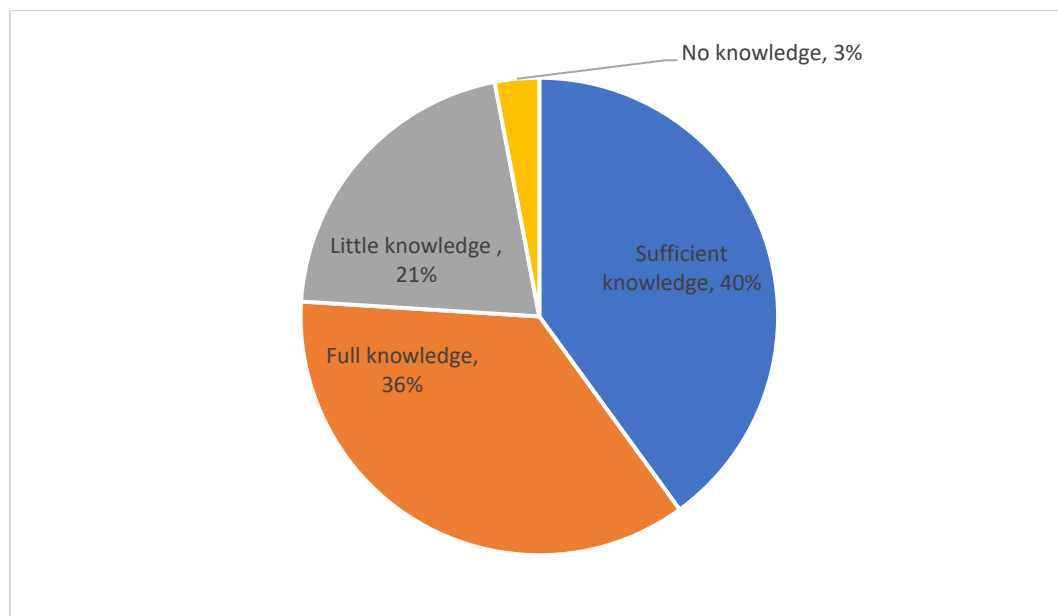


In terms of teaching techniques for including all children in the class in an equitable way regardless of background, physical ability or cognitive ability of the child, **21% of teachers stated that their knowledge was "sufficient," with teachers from Matam self-reporting at significantly, statistically higher rates, with 45% of teachers reporting a full knowledge** " in this area. Teachers who reported having had training related to reading also reported being significantly more able to include all children in the class (23% versus 19%).

Also, 19% of teachers said they had "very good" knowledge of tools for assessing levels of reading of students while 40% said they had "sufficient knowledge."

### 4.1.3. Self-report of teacher reading skills, comfort level, and use of national languages and French

Regarding self-report of levels of teacher's own reading proficiency in national languages, **35.9% report being "quite comfortable" and 29.5% were "completely comfortable" in terms of their reading in the national language they know the best (Figure 5)**. In terms of self-report of the level of ease with French, 87.3% of teachers feel completely comfortable reading French. and 79.1% were also completely comfortable when speaking French.[11]. However, the proportions declined when it came to being completely comfortable speaking the national language, with 51.2% saying they felt completely comfortable compared to 27.7% who are quite comfortable when speaking in the language. Only 29.5% said they were completely comfortable with their level of proficiency to teach in the national language.

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[11] The translation from the French related to this item is as follows: quite comfortable = *assez à l'aise*; 3 completely comfortable = *tout à fait à l'aise*.

Figure 5: Teachers according to how comfortable they feel reading in national languages:
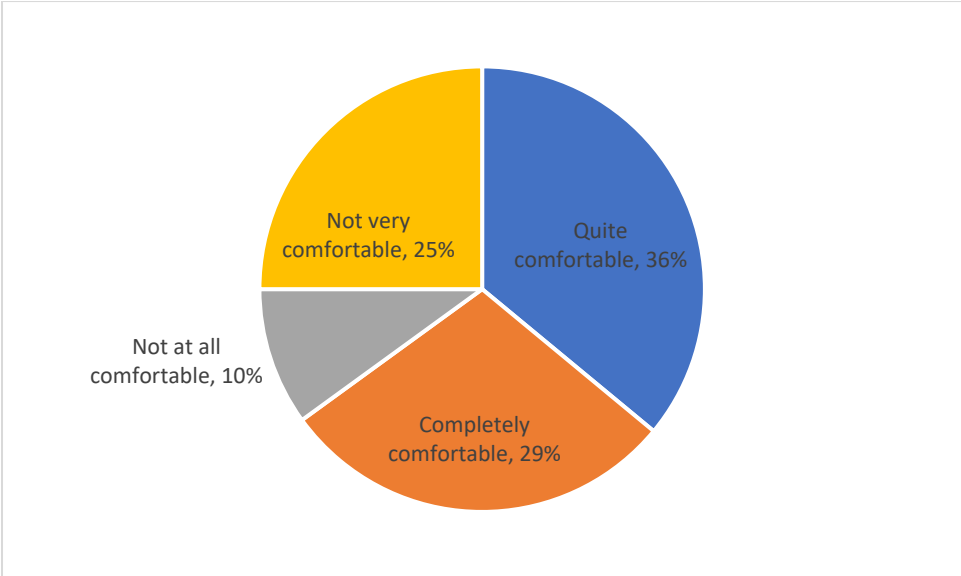


**Over a third of teachers reported feeling not at all comfortable or not very comfortable when they themselves read in national language**. When the results were compared with French (see below), the results were even more striking.

Figure 6: Teachers according to reported proficiency in reading in national languages and French
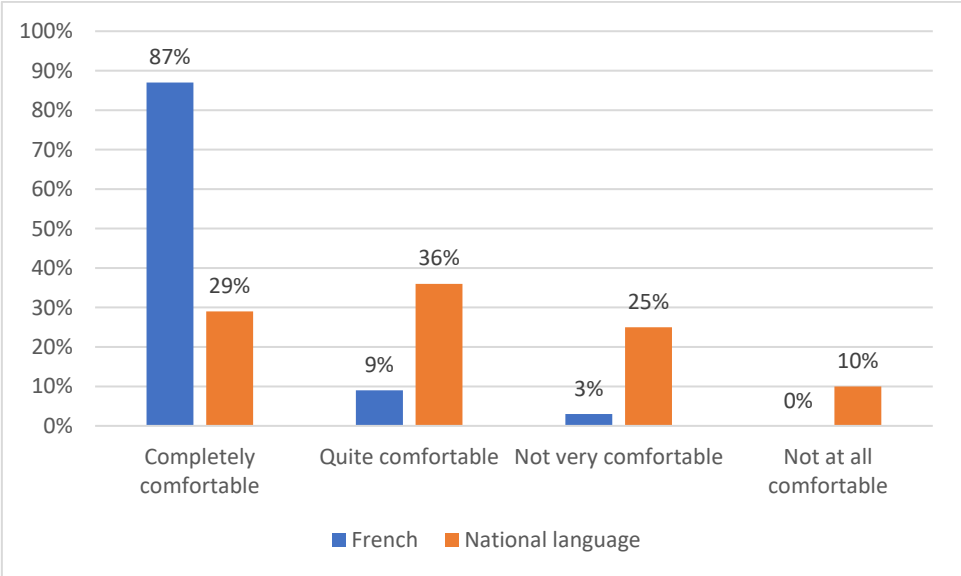


With regard to the practices and habits of teachers in initial reading, **22.3% report that they "always" make use of the national languages when they explain how to read in French and 20.1% use these languages rarely. 13.3% never use national languages when they explain how to read in French.**

Only 13.4% of teachers report that they always use national languages to teach all other subjects and more than half (45.6%) never use it or use it infrequently (21.2% never use it and 24.4% rarely use it).

Teachers[12] also report being **more comfortable teaching French reading (68%) than teaching reading in the national language (31%).**

Figure 7: Percentage of teachers reporting feeling comfortable teaching in the national language
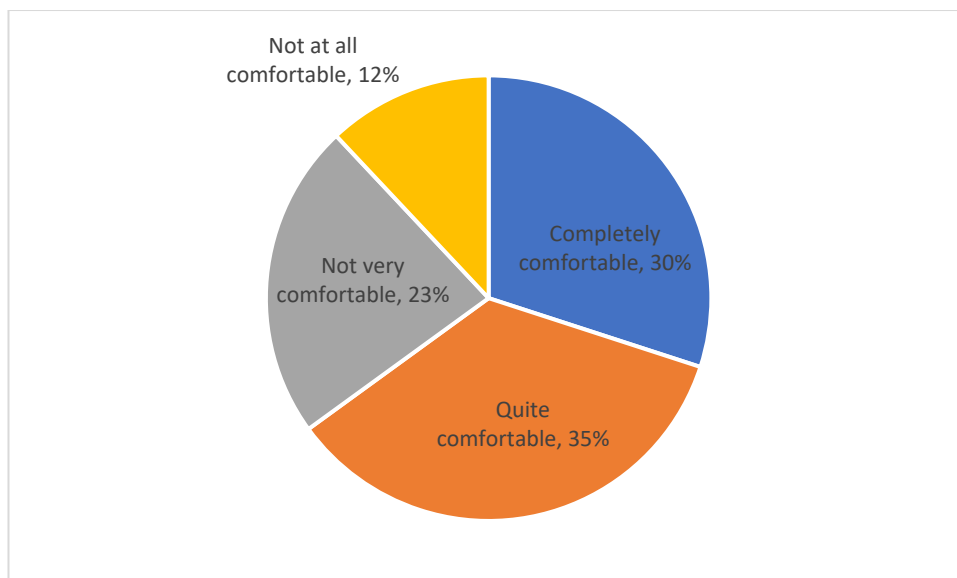


### 4.1.4. Teacher Attitudes towards Reading and the use of National Languages

In terms of teacher attitudes towards language and reading, **just 28.8% of teachers surveyed strongly agree that they have a good understanding of how children learn to read and 46.3% agreed somewhat. 24.9% reported that they had little or no understanding of how children learn to read.**

Attitudes towards reading in L1 were very positive. **76.5% of teachers agree that first-year children learn better in the national language than in French while 68.4% of teachers think that when one learns to read in national language one can easily transfer these skills to learn to read in French.**

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[12] These results includes teachers from the first four program regions of Kaolack, Kaffrine, Fatick and Matam. The midline Teacher KAP results will compare any changes in these findings in relation to all regions at baseline.

Figure 8: Percent of teachers according to years of experience agreeing with the statement that parents think that children should learn to read first in national languages before learning to read in French
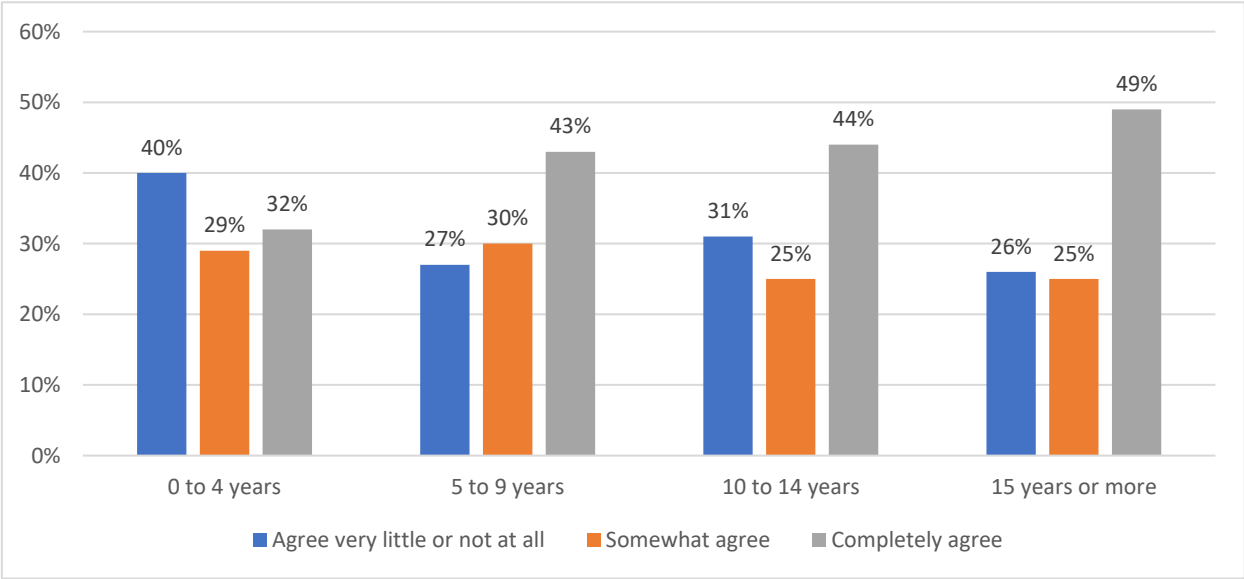


There was correlation between the number of years of teaching and attitudes towards parents wanting their children to be educated in mother tongue.

Teachers also reported having positive attitudes to the value of parental commitment. **Nine out of ten teacher, i.e. 89.9% reported that children read better if parents were interested in their education and 63.6% believed that parents could help children practice reading at home even if they themselves were not literate.**

Table 10: Percent of teachers agreeing with the statement that parents can help children to read even if they themselves are not literate

| Parents can help children to learn to read even if they themselves are not literate | Percent |
|---|---|
| **Completely disagree** | 10.3% |
| **Disagree** | 9,7% |
| **Agree** | 16.4% |
| **Strongly agree** | 63,6% |
| **Total** | 100,0% |

However**, only 23.9% of teachers surveyed reported that they always work with a student's parents** to involve all the family in helping to improve reading **and 20.0% never engage parents for that.**

Table 11: Summary table of distribution of teachers by level of agreement according to items related to beliefs about reading

| | Level of Agreement | | | | Total |
|---|---|---|---|---|---|
| | Strongly disagree | Agree somewhat | Agree | Strongly agree | |
| I have a good understanding of how children learn to read. | 3.6% | 21.3% | 46.3% | 28.8% | 100,0 |
| First-year pupils learn better in the national language than in French | 2.2% | 5.91% | 15.4% | 76.5% | 100,0 |
| It's better to start learning to read in French | 24.3% | 31.9% | 22.9% | 20.9% | 100,0 |
| Parents want their children to learn to read in the mother tongue first before learning to read in French. | 10.9% | 19.4% | 27.6% | 42.2% | 100,0 |
| When one learns to read in the mother tongue one can easily transfer the skills to learn to read in French | 1.8% | 7.3% | 22.5% | 68.4% | 100,0 |

### 4.1.5. Self-Report of Teacher Practices in Terms of the Teaching of Reading

As can be seen below, teachers were fairly evenly divided over their self-report as to how often they used national languages when teaching children to read in French.

Figure 9: Teachers reporting that they used national languages when teaching children to read in French



Never, 13% · Rarely, 21% · From time to time, 21% · Often, 22% · All the time, 22%

■ Never  ■ Rarely  ■ From time to time  ■ Often  ■ All the time
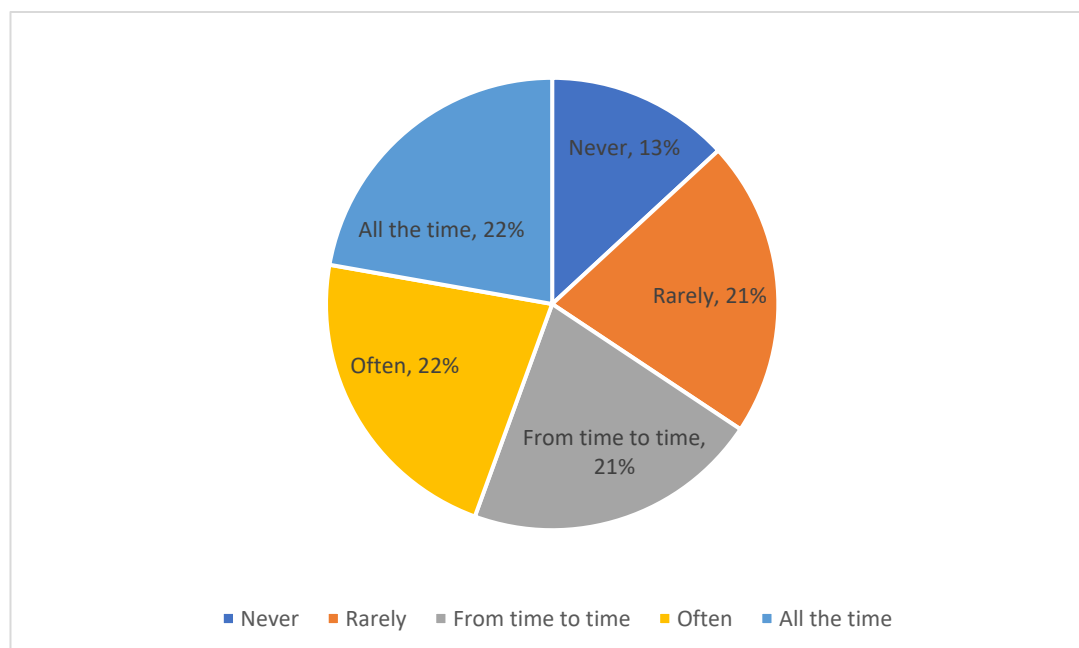
In terms of daily activities, **32.1% of teachers in this baseline study report that they have students decode the individual sounds in a word every day, 29.5% teach them the names of the letters of the alphabet, 38.6% teach them how to spell short words, 22.7% teach them punctuation and 30.3% teach them how to decode longer words.**

On average, over 27% of teachers at baseline reported "always" using the "I do, you do, we do" technique of explicit instruction with modeling and student practice, which is an interesting finding given that this approach was not known to be used in Senegal at this time before the Lecture Pour Tous program began. The teacher's area of residence, teaching area, gender, professional status, academic level and average number of students in the classroom remain significantly associated with their self-reporting of the teaching strategy of "I do, we do, you do". Teachers from Matam are reportedly more likely to use this technique than teachers from other regions. In addition, 44% of teachers reported making students read from textbooks on a daily basis and 46% of teachers reported always evaluating the students individually to determine each student's level of reading (despite the fact that this may be difficult in classes of over 40).

Figure 10: Percentages of teachers self-reporting use of the "I do, You do, We do, Technique," by different teacher/classroom characteristics

**Percentages of teachers reporting use of "I do, You do, We do" by professional status**



**Percentages of teachers self-reporting use of "I do, You do, We do" by gender**
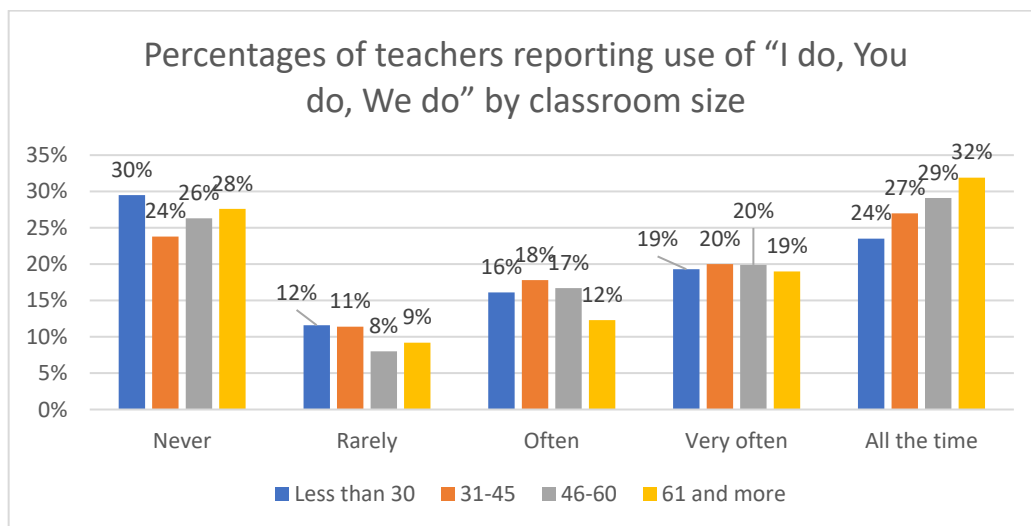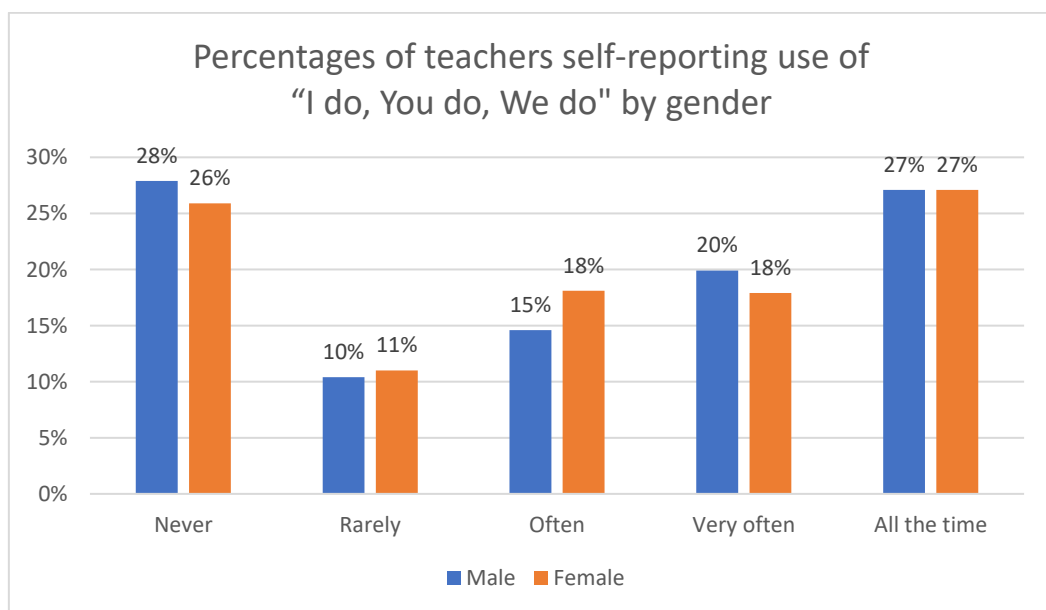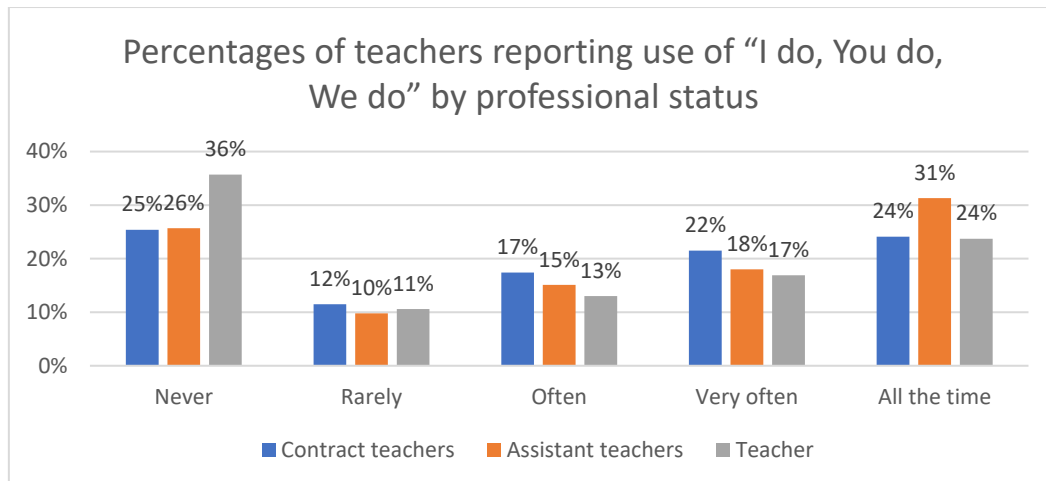
Nearly 4 out of 10 teachers (40.1%) report always engaging in remedial exercises with the whole class and 37.5% also reported always conduct special remedial exercises with students with special learning needs or disabilities. 36% of teachers reported that they always communicated with parents if children had difficulties reading.

The results of the cluster analysis showed that certain characteristics were associated with one another. For example, there was a cluster of teachers residing in Matam, Diourbel and Louga who were all associated with a strong knowledge of the following techniques:

- good practices for the practice of reading by students at home
- remediation techniques to help a child who has trouble reading
- techniques for continuously and less formally assessing a student's reading skills
- the five components of reading instruction
- the amount of time needed to spend each day teaching reading in class
- the techniques for 100% fair participation of each student in the class, regardless of the child's background, physical ability or cognitive ability

The first cluster was characterized by the following who made up a distinct group with the variables below loading onto a single cluster:

- Teachers who reside in Matam, Diourbel or Louga
- Have secondary degree or above (bachelor's or Master's)
- Be contract teachers
- Use "I do, We do, you do"
- devotes at least 60 minutes in the day for teaching-learning only reading in national language
- Knowledgeable about the five components of reading
- Sound knowledge of both formally and informally assessing student reading levels

Another interesting group which emerged from the cluster analysis was that of teachers residing in the areas of Kaffrine. Kaolack and Fatick who were teachers with BFEM degrees. These teachers knew little or nothing at all about:

- adequate time that is required ever day for teaching reading in class.
- good practices for the practice of reading by students at home
- the techniques for 100% fair participation of each student in the class, regardless of the child's background, physical ability or cognitive ability
- the five components of reading instruction.
- techniques for continuously and less formally assessing a student's reading skills

## 4.2.   KAP Component 2 Results

### 4.2.1.   Time on Task

One of the main parts of this study is "time on task." As mentioned in the methodology, the purpose of the time on task analysis is to identify the real time that teachers spend on a) educational/learning tasks such as explaining or reading to students or having students practice reading with correction as needed, b) classroom management such as taking attendance, or c) time off task such as engaging in social conversation or leaving the classroom (to answer phone for example).

The original Stallings methodology (World Bank Group, 2017) groups activities in a classroom under these four categories:

- Learning activities
- Classroom management
- Student off-task
- Teacher off-task

For the sake of this study, and because of the focus on teachers' time on task, we did not include items on student time-on-task. Therefore, the study groups the questions under four main groups:

- Learning activities
- Classroom management
- Teacher off-task.

Figure 11 summarizes the types of activities teachers conducted during the observed lessons, at each moment of observation throughout a 30-minute session.

Figure 11 Types of activities observed during the lessons, by category



Types of Activities Observed in 30-Minute Lessons
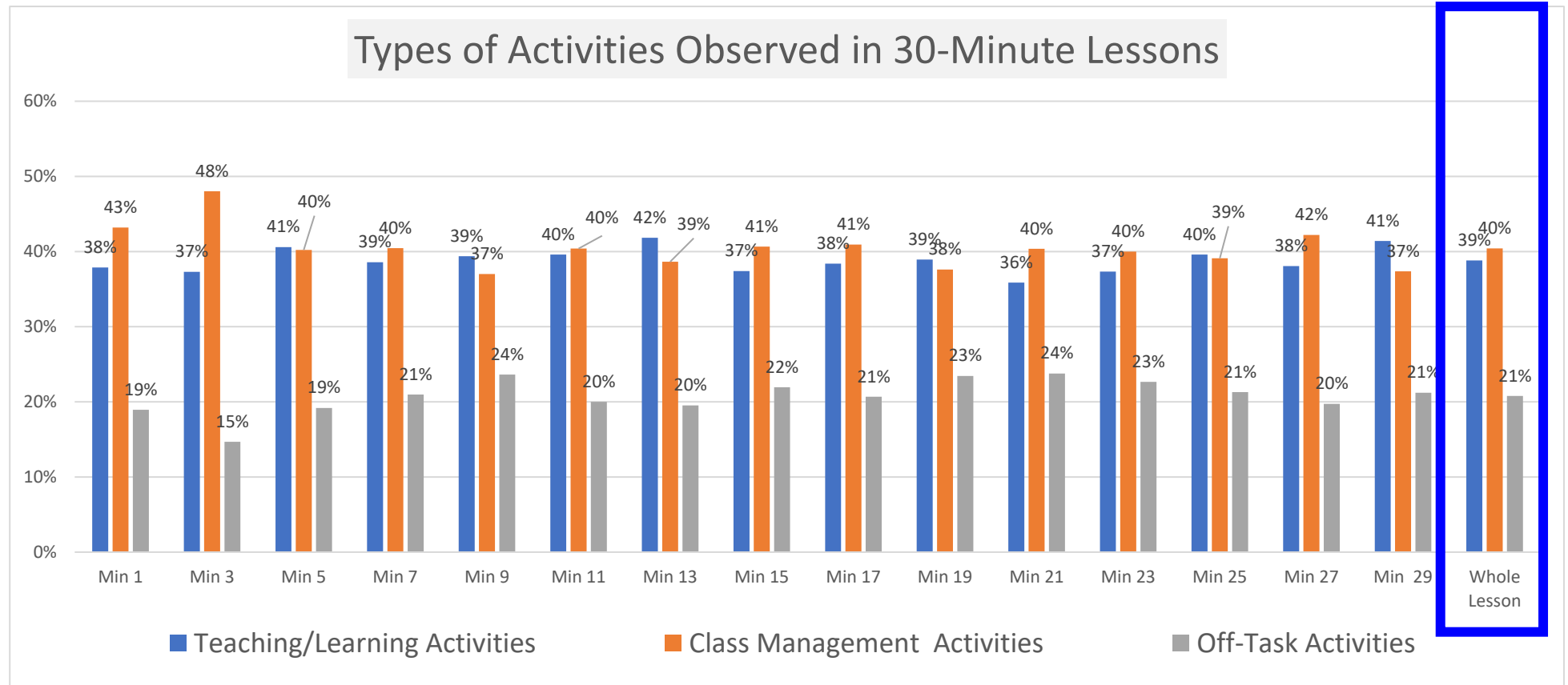
Considering the entire lesson, teachers on average spent 40 percent of the time managing class, 39 percent conducting teaching/learning activities and 21 percent of the time off-task. The results are largely consistent throughout the lesson, i.e. beginning, middle or end of the lesson even though there is a slightly higher percentage in class management activities and lower percent in off-task ones in the observation points at minutes 1 and 3.

Figure 12: Time on Task percentages



Legend: ■ Teaching/Learning activities  ■ Classroom management activities  ■ Off task
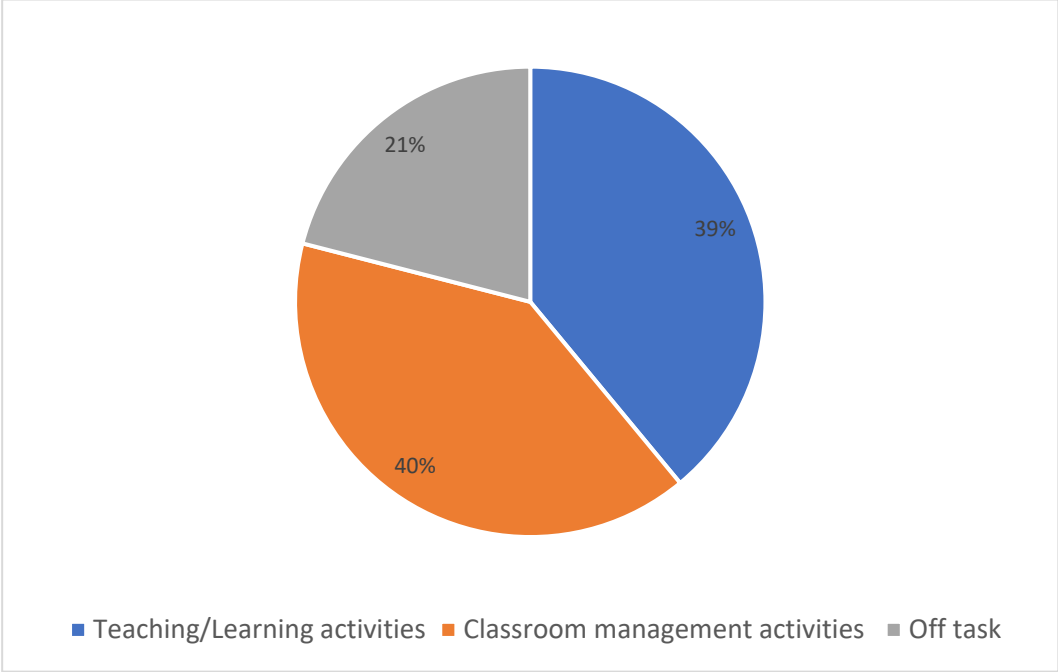
### 4.2.2. Language use in class

#### a. Teachers' language use in class

We tallied all instances of teachers' use of any language with students in different situations: as a whole class, with a small group of students, with an individual boy/girl, and with a special-needs student, by sex. Figure 13 summarizes teachers' language use within these categories.

## Figure 13: Teacher Language Use in Class, by Category
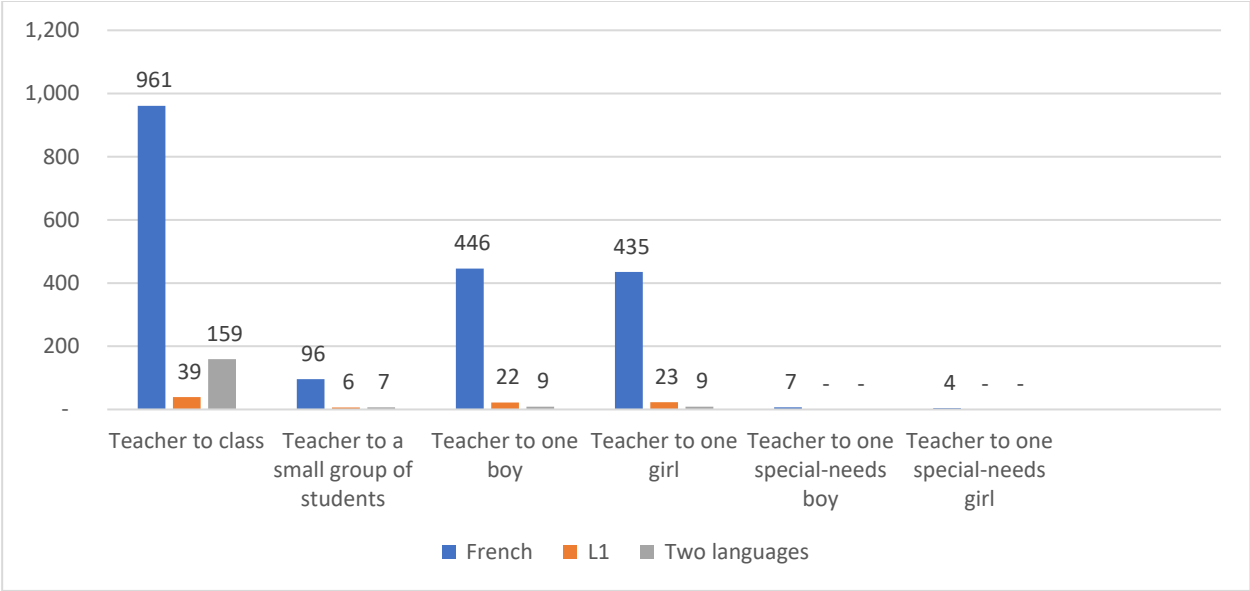


Teachers used French to a much greater extent than L1 or a mix of two languages no matter which sub-category of students they had addressed. When they addressed the whole class, teachers used French 82.92% of the time, followed by using two languages at a distant 13.72%, then using L1 only at 3.36%. When addressing a single student, teachers also used French at more than 93% of the time regardless of whether they had addressed a boy or a girl. The same applies to when they addressed other sub categories like a small group of students or special needs students. Table 13 shows the instances and percentages of use of languages by teachers with the different sub groups.

## Table 12: Teacher language use in class

| | French | | L1 | | 2 languages | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Teacher to whole class** | 961 | 82.92% | 39 | 3.36% | 159 | 13.72% |
| **Teacher to one student (boy)** | 446 | 93.50% | 22 | 4.61% | 9 | 1.89% |
| **Teacher to one student (girl)** | 435 | 93.15% | 23 | 4.93% | 9 | 1.93% |
| **Teacher to small group** | 96 | 88.07% | 6 | 5.50% | 7 | 6.42% |
| **Teacher to special needs (boy or girl)** | 11 | 100.00% | 0 | 0.00% | 0 | 0.00% |
| **Total** | 1949 | 87.67% | 90 | 4.05% | 184 | 8.28% |

Overall, and as shown in Figure 14 below, **teachers used French 87.67% when addressing students in all categories**. They used two languages 8.28% of the time and L1 only 4.05% of the time. This clearly demonstrates that French is the dominant language used by teachers in class at baseline.
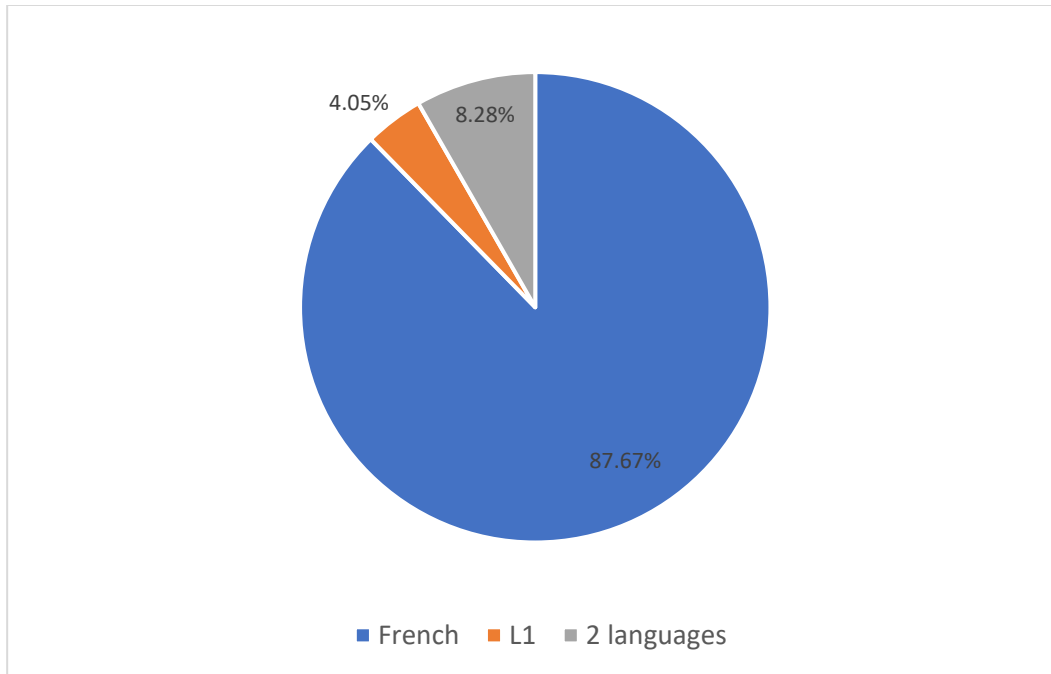
**b. Students' language use in class**

As with teachers, we tallied the instances of language use by students. The findings are summarized in Figures 15 and 16.

Figure 15 : Student language use in class, by category
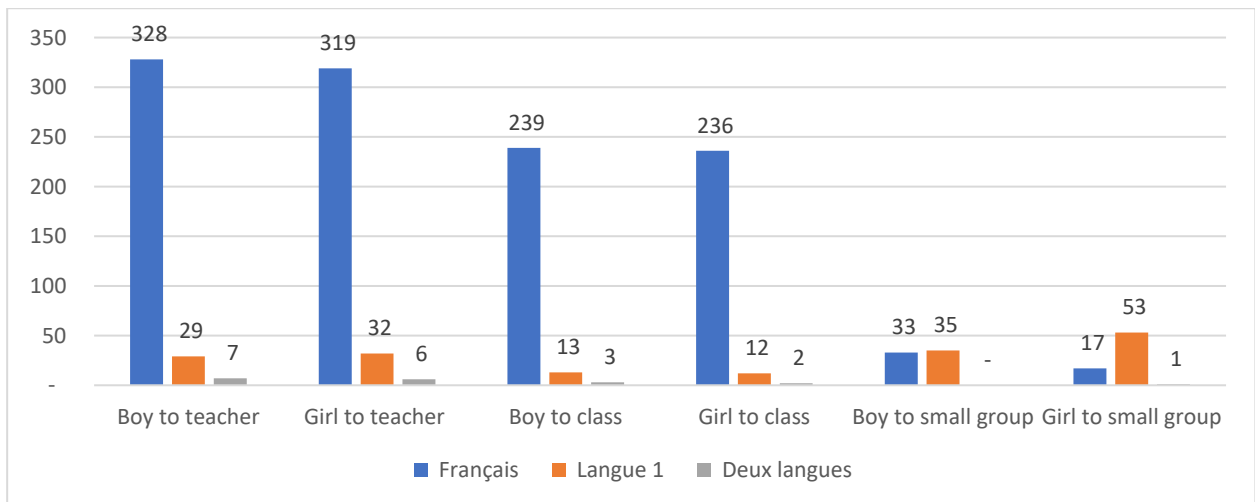


Students used French in class 85.86% of the time, followed by L1 at 12.75% and two languages at 1.39%. As shown in Figure 16, students' use of French in class is prominent.

Figure 16: Percentages of student language use in class
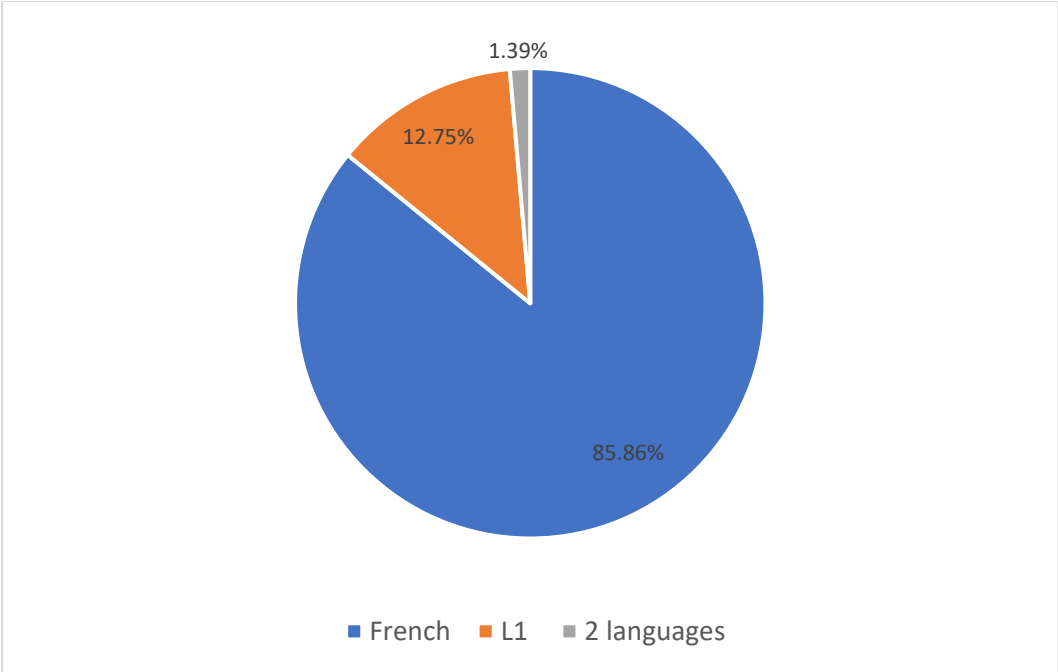


Both boys and girls consistently used French whether they were talking to a teacher or to the entire class. For example, boys used French 90.11% of the time when they communicated with their teacher. Girls, similarly, used French with teachers 89.36% of the time. When they talked to the whole class, boys used French 93.73% of the time and girls 94.4%.

However, when they talked to another student, boys and girls preferred to use L1. This is slightly more conspicuous with girls—53 times in L1 representing 74.65% of the time, to 17 in French, or 23.94%. For boys, they used L1 51.47% of the time and French 48.53%. Students rarely used two languages in any situation as shown in Table 14 below.

Table 13: Numbers and percentages of students' use of languages in class, by subcategory

| Student to: | French | | L1 | | 2 languages | |
|---|---|---|---|---|---|---|
| | N | % | N | % | N | % |
| **Boy to teacher** | 328 | 90.11% | 29 | 7.97% | 7 | 1.92% |
| **Girl to teacher** | 319 | 89.36% | 32 | 8.96% | 6 | 1.68% |
| **Boy to class** | 239 | 93.73% | 13 | 5.10% | 3 | 1.18% |
| **Girl to class** | 236 | 94.40% | 12 | 4.80% | 2 | 0.80% |
| **Boy to one student or small group of students** | 33 | 48.53% | 35 | 51.47% | 0 | 0.00% |
| **Girl to one student or small group of students** | 17 | 23.94% | 53 | 74.65% | 1 | 1.41% |
| **Boys to all groups** | 600 | 87.34% | 77 | 11.21% | 10 | 1.46% |
| **Girls to all groups** | 572 | 84.37% | 97 | 14.31% | 9 | 1.33% |
| **Boys and girls to all groups** | 1,172 | 85.86% | 174 | 12.75% | 19 | 1.39% |

### 4.2.3. Lesson content

Part of the observation focused on the pedagogical activities during a lesson, referred to in the graph below as "lesson contents." These refer to activities conducted by teachers and students. They do not specify who is conducting the activities. Figure 17 summarizes these activities globally, i.e. all the data. The results indicate that the most frequent activities in the lessons observed are "Reading Passages/Texts" and "Practice of Reading of Isolated Words". The "Identification of the Sounds of Letters" as well as "Other" are also high on the list of pedagogical activities during the lessons. On the other hand, "Writing", "Comprehension" and "Dictation" are not used very often during the lessons.

In order to paint a clearer picture of the differences of lesson contents between grades and between types of lessons, Figures 18 through 21 show such detail by type of content per category.

## Figure 17: Lesson contents (all lessons combined)



**Percents of lesson contents for all lessons (112 lessons observed)**

| Lesson content | Percent |
|---|---|
| Lecture de textes / (reading passages/texts) / (reading passages/texts) | 24.11% |
| Autre/ (Other) | 14.88% |
| Pratique de lecture des mots isolés / (practice of reading of isolated words) / (practice of reading of… | 14.88% |
| Lettres : identification de sons de lettres / (Letters: identification of letter sounds) | 14.58% |
| Ecriture d'une phrase / (writing a sentence) / (writing a sentence) | 13.99% |
| Lecture d'une phrase / (reading a sentence) (reading a sentence) | 13.39% |
| Décodage (combiner des lettres pour faire des syllabes ou lettres/syllabes pour faire un mot) / (Decoding… | 12.50% |
| Compréhension à l'orale des textes lus par l'enseignant / (Oral comprehension of the texts read by the… | 11.61% |
| Grammaire ou conjugaisons / (Grammar or conjugations) / (Grammar or conjugations) | 10.71% |
| Lettres : identification de noms de lettres / (Letters: identification of letter names) | 9.52% |
| Compréhension de l'écrit des textes/histoires lus par l'élève / (Reading comprehension of the texts /… | 8.93% |
| Dictée des mots aux élèves / (Dictation of words to students) (Dictation of words to students) | 8.93% |
| Sons sans écrire (conscience phonémique) / (Sounds without writing (phonemic awareness)) / (Sounds… | 8.63% |
| Ecriture de textes / (Writing of texts) / (Writing of texts) | 8.04% |
| Vocabulaire (signification des mots) / (Vocabulary (meaning of words)) / (Vocabulary (meaning of words)) | 7.44% |
| Traitement (discussion, etc.) d'un texte de genre particulier (descriptif, narratif, injonctif, etc.)/… | 6.25% |
| Graphisme (Graphisme) (Graphisme (Graphisme)) | 5.65% |
| Dictée des phrases aux élèves / (Dictation of sentences to students) | 2.08% |

**Figure 18: Lesson contents (All grades and all reading-related lessons: reading, writing and composition)**



Percents of lesson contents for reading-related lessons
--Reading, Writing, Composition-- in CI-CP-CE1 classes
(81 lessons observed)

| Lesson content | Percent |
| --- | --- |
| Lecture de textes / (reading passages/texts) | 25.51% |
| Lettres : identification de sons de lettres /(Letters: identification of letter sounds) | 17.70% |
| Ecriture d'une phrase / (writing a sentence) | 16.46% |
| Pratique de lecture des mots isolés / (practice of reading of isolated words) | 15.64% |
| Lecture d'une phrase / (reading a sentence) | 15.23% |
| Décodage (combiner des lettres pour faire des syllabes ou lettres/syllabes pour faire un mot) / (Decoding… | 14.81% |
| Autre/ (Other) | 10.70% |
| Compréhension à l'orale des textes lus par l'enseignant / (Oral comprehension of the texts read by the teacher) | 10.70% |
| Lettres : identification de noms de lettres / (Letters: identification of letter names) | 10.70% |
| Compréhension de l'écrit des textes/histoires lus par l'élève / (Reading comprehension of the texts /… | 9.47% |
| Dictée des mots aux élèves / (Dictation of words to students) | 9.47% |
| Sons sans écrire (conscience phonémique) / (Sounds without writing (phonemic awareness)) | 9.47% |
| Ecriture de textes / (Writing of texts) | 9.05% |
| Grammaire ou conjugaisons / (Grammar or conjugations) | 8.64% |
| Graphisme (Graphisme) | 7.00% |
| Vocabulaire (signification des mots) / (Vocabulary (meaning of words)) | 6.17% |
| Traitement (discussion, etc.) d'un texte de genre particulier (descriptif, narratif, injonctif, etc.)/… | 5.35% |
| Dictée des phrases aux élèves / (Dictation of sentences to students) | 2.47% |

**Figure 19: Lesson contents for CI lessons (reading-related lessons: reading, writing and composition)**

Percents of lesson contents for reading-related lessons --Reading,
Writing, Composition-- in CI classes
(30 lessons observed)

| Content | Percent |
|---|---|
| Lettres : identification de sons de lettres / (Letters: identification of letter sounds) | 27.78% |
| Décodage (combiner des lettres pour faire des syllabes ou lettres/syllabes pour faire un mot) / (Decoding… | 23.33% |
| Lecture de textes / (reading passages/texts) | 21.11% |
| Ecriture d'une phrase / (writing a sentence) | 18.89% |
| Lecture d'une phrase / (reading a sentence) | 18.89% |
| Lettres : identification de noms de lettres / (Letters: identification of letter names) | 17.78% |
| Pratique de lecture des mots isolés / (practice of reading of isolated words) | 15.56% |
| Sons sans écrire (conscience phonémique) / (Sounds without writing (phonemic awareness)) | 14.44% |
| Dictée des mots aux élèves / (Dictation of words to students) | 12.22% |
| Graphisme (Graphisme) | 10.00% |
| Autre/ (Other) | 8.89% |
| Compréhension de l'écrit des textes/histoires lus par l'élève / (Reading comprehension of the texts /… | 8.89% |
| Compréhension à l'orale des textes lus par l'enseignant / (Oral comprehension of the texts read by the teacher) | 8.89% |
| Ecriture de textes / (Writing of texts) | 3.33% |
| Vocabulaire (signification des mots) / (Vocabulary (meaning of words)) | 3.33% |
| Traitement (discussion, etc.) d'un texte de genre particulier (descriptif, narratif, injonctif, etc.)/… | 2.22% |
| Dictée des phrases aux élèves / (Dictation of sentences to students) | 2.22% |
| Grammaire ou conjugaisons / (Grammar or conjugations) | 1.11% |

**Figure 20: Lesson contents for CP lessons (reading-related lessons: reading, writing and composition)**

Percents of lesson contents for reading-related lessons --Reading, Writing, Composition-- in CP classes
(29 lessons observed)

| Lesson content | Percent |
|---|---|
| Pratique de lecture des mots isolés / (practice of reading of isolated words) | 21.84% |
| Ecriture d'une phrase / (writing a sentence) | 20.69% |
| Lettres : identification de sons de lettres /(Letters: identification of letter sounds) | 20.69% |
| Décodage (combiner des lettres pour faire des syllabes ou lettres/syllabes pour faire un mot) / (Decoding…) | 16.09% |
| Lecture d'une phrase / (reading a sentence) | 13.79% |
| Dictée des mots aux élèves / (Dictation of words to students) | 12.64% |
| Lettres : identification de noms de lettres / (Letters: identification of letter names) | 11.49% |
| Autre/ (Other) | 10.34% |
| Ecriture de textes / (Writing of texts) | 10.34% |
| Lecture de textes / (reading passages/texts) | 10.34% |
| Grammaire ou conjugaisons / (Grammar or conjugations) | 9.20% |
| Graphisme (Graphisme) | 9.20% |
| Sons sans écrire (conscience phonémique) / (Sounds without writing (phonemic awareness)) | 9.20% |
| Compréhension à l'orale des textes lus par l'enseignant / (Oral comprehension of the texts read by the teacher) | 5.75% |
| Traitement (discussion, etc.) d'un texte de genre particulier (descriptif, narratif, injonctif, etc.)/… | 4.60% |
| Compréhension de l'écrit des textes/histoires lus par l'élève / (Reading comprehension of the texts /… | 3.45% |
| Vocabulaire (signification des mots) / (Vocabulary (meaning of words)) | 3.45% |
| Dictée des phrases aux élèves / (Dictation of sentences to students) | 2.30% |

Percents of lesson contents for reading-related lessons --Reading, Writing, Composition-- in CE1 classes (22 lessons observed)

| Lesson content | Percent |
| --- | --- |
| Lecture de textes / (reading passages/texts) | 51.52% |
| Compréhension à l'orale des textes lus par l'enseignant / (Oral comprehension of the texts read by the teacher) | 19.70% |
| Grammaire ou conjugaisons / (Grammar or conjugations) | 18.18% |
| Compréhension de l'écrit des textes/histoires lus par l'élève / (Reading comprehension of the texts /… | 18.18% |
| Ecriture de textes / (Writing of texts) | 15.15% |
| Autre /(Other) | 13.64% |
| Vocabulaire (signification des mots) / (Vocabulary (meaning of words)) | 13.64% |
| Lecture d'une phrase / (reading a sentence) | 12.12% |
| Traitement (discussion, etc.) d'un texte de genre particulier (descriptif, narratif, injonctif, etc.)/… | 10.61% |
| Ecriture d'une phrase /  (writing a sentence) | 7.58% |
| Pratique de lecture des mots isolés / (practice of reading of isolated words) | 7.58% |
| Dictée des phrases aux élèves / (Dictation of sentences to students) | 3.03% |
| Sons sans écrire (conscience phonémique) / (Sounds without writing (phonemic awareness)) | 3.03% |
| Dictée des mots aux élèves / (Dictation of words to students) | 1.52% |
| Décodage (combiner des lettres pour faire des syllabes ou lettres/syllabes pour faire un mot) / (Decoding… | 1.52% |
| Graphisme (Graphisme) | 0.00% |
| Lettres :  identification de sons de lettres / (Letters: identification of letter sounds) | 0.00% |
| Lettres :  identification de noms de lettres / (Letters: identification of letter names) | 0.00% |

To make sense of the graphs above, a summary table of the top five pedagogical activities during a lesson by category is below in Table 15. This table shows that "Reading Passages and Texts" is the

most dominant lesson activity. It occupies the top place in three categories (i.e. "all the lessons", "all the reading lessons", and "CE1 reading lessons"). It is also second and third in the other two categories. It is note-worthy that in CE1 reading lessons, "Reading Passages and Texts" is heavily used at more than 50%, meaning that more than half of the lesson consist of reading passages/texts. The second most used lesson component is "Letters: Identification of Letter Sounds", followed by "the Practice of Reading of Isolated Words".

Table 14: Summary table of the top five pedagogical activities during a lesson by category

| | All lessons (112) | All reading-related lessons (81) | CI reading-related lessons (30) | CP reading-related lessons (29) | CE1 reading-related lessons (22) |
|---|---|---|---|---|---|
| Lecture de textes (reading passages/texts) | 24.11% | 25.51% | 21.11% | | 51.52% |
| Lettres : identification de sons de lettres (Letters: identification of letter sounds) | | 17.70% | 27.78% | 20.69% | |
| Pratique de lecture des mots isolés (practice of reading of isolated words) | 14.88% | 15.64% | | 21.84% | |
| Décodage : combiner des lettres pour faire des syllabes ou lettres/syllabes pour faire un mot. (Decoding: combining letters to make syllables or letters / syllables to make a word) | | | 23.33% | 16.09% | |
| Ecriture d'une phrase (writing a sentence) | 13.99% | 16.46% | 18.89% | 20.69% | |
| Compréhension à l'orale des textes lus par l'enseignant (Oral comprehension of the texts read by the teacher) | | | | | 19.70% |
| Autre (Other) | 14.88% | | | | |
| Grammaire ou conjugaisons (Grammar or conjugations) | | | | | 18.18% |
| Compréhension de l'écrit des textes/histoires lus par l'élève (Reading comprehension of the texts / stories read by the student) | | | | | 18.18% |
| Lettres : identification de sons de lettres (Letters: identification of letter sounds) | 14.58% | | | | |
| Lecture d'une phrase (Reading a sentence) | | 15.23% | 18.89% | 13.79% | |
| Ecriture de textes (Writing of texts) | | | | | 15.15% |
| Key | | | | | |

| Blue | The highest in the category | Orange | The second highest in the category | Grey | The third highest in the category |
|---|---|---|---|---|---|

### 4.2.4. Teacher practices

This section covers five main areas: 1) the practice of "I do, We do, You do", 2) patterns of teachers' practices in reading in class , 3) teachers' process for selecting students for tasks, 4) teachers' use of L1 in class, and 5) teachers' methods of student evaluations during the lesson. The results under each of the categories are discussed below.

### a) "I do, We do, You do":

"I do, We do, You do" (*je fais, nous faisons, tu fais*) is a three-part modeling and student practice methodology that encourages sound practice and mastery of new knowledge and skills first through teacher modeling, then asking the whole class to do the task together with the teacher, and then asking individual students to do the same task but with different examples. For this modeling and

student practice exercise to work well, the three activities must be conducted. When examining the frequency of teacher use of the three parts, the data show the following results: **teachers used the first part 58.37% of the time while they performed the second and third tasks only 21.53% and 20.10% of the time, respectively.** The result is interesting in that the percentage of times the first part of the methodology is used is more than double the second and third tasks. In addition, at least some of the teachers where observed using all three parts of this method.

While the data cannot indicate the reasons for the disparity between the frequency of tasks 1 on one hand and tasks 2 and 3, on the other, we can speculate at baseline that the possible reasons could be that teachers have not been trained on such a methodology yet and that teachers tend to demonstrate a new task to students regardless of this method, hence this part is used more frequently.

It will be interesting to compare these results from baseline with midline and endline to see if: 1) the percentages of these three parts are close to each other, 2) the frequency of using this method is higher.

Figure 22: « I do, you do, we do » practice in class
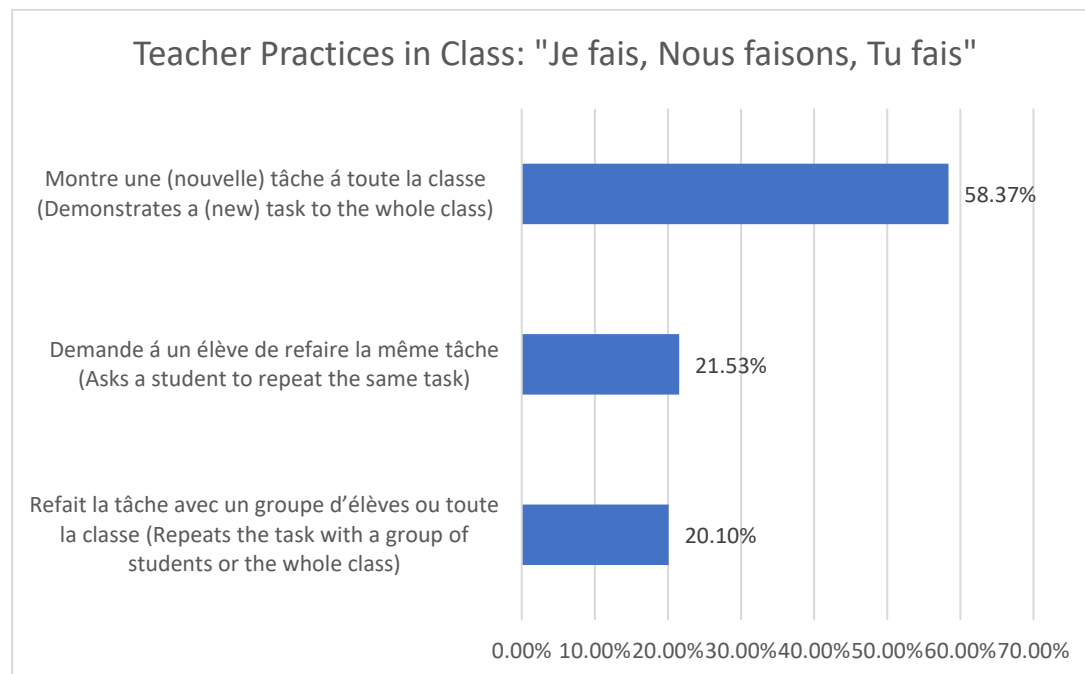


b) **Teachers' practices related to reading:**

In the lessons observed, teachers asked students –as a group—to read from their textbooks or on the blackboard 44.95% of the time followed by asking individual students to read from his/her their textbook or on the blackboard 44.40% of the time. In contrast, **teachers asked students in groups and individually to read from books other than textbooks only 4.55% of the time**. They also asked students to read in pairs 5.56% of the time. This indicates that teachers focus on group and individual reading from the student textbooks and the blackboard. This finding corroborates other results related to the types of materials used in class (see section 5.2.6 and 5.2.7 below).

Figure 23 : Patterns of teachers' practices in reading in class



## Teacher Practices in Class: Patterns of teachers' practices in reading in class

| Practice | Percentage |
|---|---|
| Fait lire les élèves dans le manuel/tableau (Have students read in the textbook / blackbaord) | 44.95% |
| Fait lire un élève dans le manuel/tableau (Have a student read in the textbook / blackbaord) | 40.40% |
| Fait lire les élèves en groupe de deux (tutorat) (Have students read in pairs (tutoring)) | 5.56% |
| Fait lire les élèves dans un autre livre outre que le manuel (Have students read in another book besides the manual) | 4.55% |
| Fait lire un élève dans un autre livre outre que le manuel (Have a student read in another book besides the textbook) | 4.55% |

#### c) Teachers' selection of students to conduct tasks

Another important element of this classroom observation was to identify patterns of how teachers select or call on students for tasks. Three conclusions emerge from the results in Figure 24: a) teachers select boys and girls with the same frequency: 43.47% of students called on were boys and 42.68% were girls, with this difference was not found to be statistically significant. Students were chosen randomly only 11.89% of the time and c) students with a disability were chosen only 1.70% of the time.

Figure 24 : Patterns of Student Selection by Teachers



Figure 24 : Patterns of Student Selection by Teachers
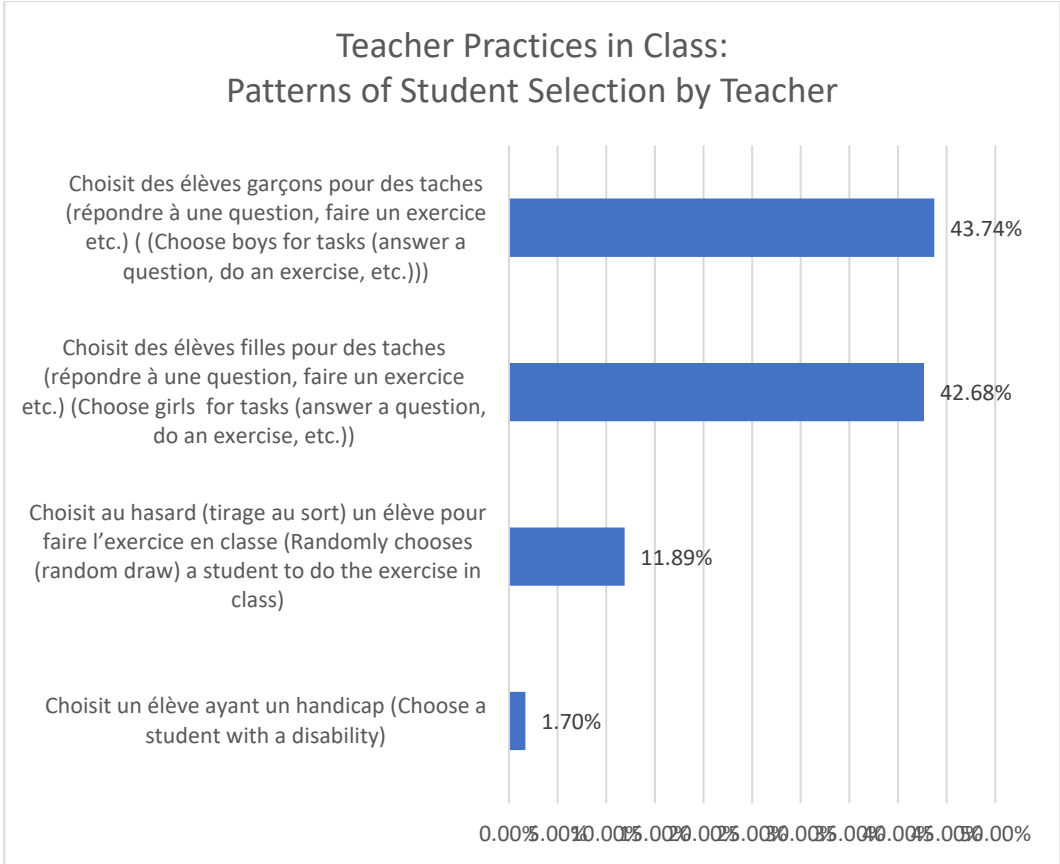
The first result, i.e. selecting students by sex is interesting given that it looked like teachers selected boys or girls almost equally.

### d) Teachers' Use of L1 in Class

As presented above in Figure 14, the observed teachers tended to use French for most of their communication in class. **They only used L1 for 4.05% of the lesson time**. Figure 25 below presents a breakdown of the activities and purposes for teachers' use of L1 in class. This is intended to help understand why teachers switched to L1 at baseline, before the L1 policy is implemented.
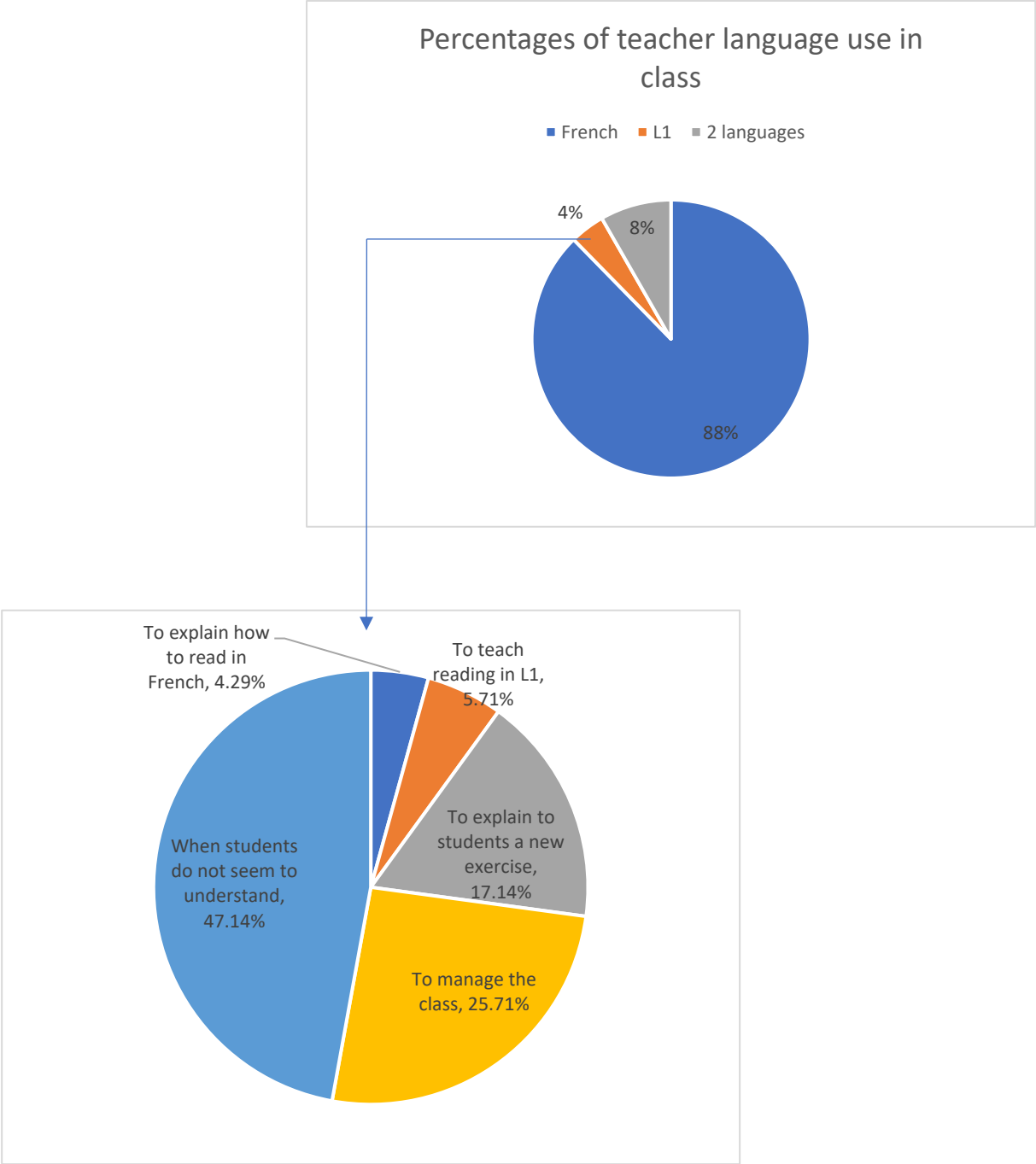
Of the total 4.05% of the time teachers used L1 in class, almost half of that time they switched to L1 when observers thought that students had not understood. This translates to less than 2% of the overall lesson time. Teachers switched to L1 to teach reading in French and to teach reading in L1 only for about 0.23% and 0.17% of the lesson time, respectively. This is consistent with expectations at baseline.

### e) Teacher Evaluation of Students in Class

Observation data showed that teachers evaluated students using tools and more structured methods 41.21% of the time followed by assessing students in a less formal / structured way to know their reading skills" at 26.92% of the time. Interestingly, teacher tend to evaluate the whole class to test the level of understanding of the class more, at 68.13%, while they only assess students individually 31.87% of the time. (Figure 27 below).

Figure 26 : Teacher evaluations of students in class



*Teacher Practices in Class: Teachers' Student Evaluations in Class*
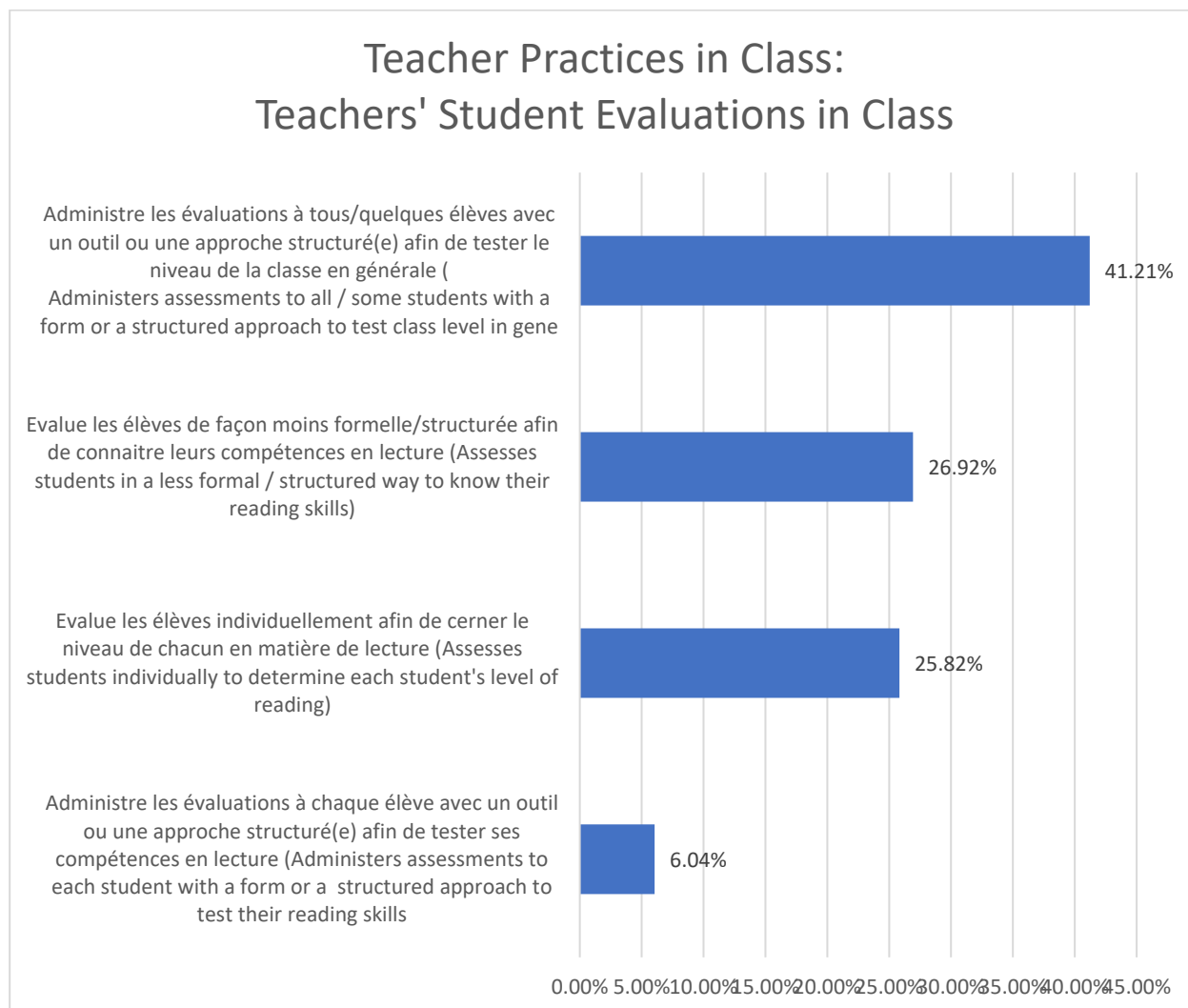
| Category | Percentage |
|---|---|
| Administre les évaluations à tous/quelques élèves avec un outil ou une approche structuré(e) afin de tester le niveau de la classe en générale ( Administers assessments to all / some students with a form or a structured approach to test class level in gene | 41.21% |
| Evalue les élèves de façon moins formelle/structurée afin de connaitre leurs compétences en lecture (Assesses students in a less formal / structured way to know their reading skills) | 26.92% |
| Evalue les élèves individuellement afin de cerner le niveau de chacun en matière de lecture (Assesses students individually to determine each student's level of reading) | 25.82% |
| Administre les évaluations à chaque élève avec un outil ou une approche structuré(e) afin de tester ses compétences en lecture (Administers assessments to each student with a form or a structured approach to test their reading skills | 6.04% |

## 4.2.5. Students' Actions and Interactions

In observing student activity in the classroom, **students were rarely observed reading – including reading individually out loud only 7% of the time, reading out loud in chorus together 6.2% of the time, and reading silently 6.6% of the time**. Instead, the data clearly show that students spent the more than a quarter of the time watching and /or listening to the teacher (27.12% of the time). The next most frequent student activities observed were copying texts on slates or students' notebooks (15.14% of the time) and writing on the blackboard (14.12% of the times). On the other end of the spectrum, the results also indicate that students engaged very rarely in activities such as small group work, asking questions, or working in pairs.

Students' top three activities (watching and /or listening to the teacher, copying texts on slates or students' notebooks, and writing on the blackboard) constituted 56.38% of students' activities and interactions.

- The bottom three activities (as "small group work", "asking questions", or "working in pairs") constituted only 5.65% of the students' activities.

Figure 27 : Students' action and interactions



## Students' Actions et Interactions

| Activity | Percentage |
|---|---|
| Ecoutent or regardent l'enseignant (majorité des élèves) / Listen / (watch the teacher (majority of students) | 27.12% |
| Recopie/écrit à sa place sur ardoise ou cahier / (Copy / write in their place on slate or notebook) | 15.14% |
| Ecrit au tableau / (Writte on the board) | 14.12% |
| Lis individuellement à haute voix devant la classe (de son manuel ou un autre livre) / (Read aloud aloud to the class (from… | 7.01% |
| Lisent silencieusement (manuel ou un autre livre/tableau) / (Read silently (manual or another book) | 6.55% |
| Lisent en chœur (Read in chorus) | 6.21% |
| Ecrit à sa place (dictée)/ (write on desk( dictation) | 5.76% |
| Autre (Other) | 3.62% |
| Ecrit sur cahier/papier (production d'écrit) / Write on notebook / paper (composition) | 3.16% |
| Récite/récitent de mémoire, sans lire/ (Recite from memory, without reading) | 3.16% |
| Fait/font autre activité d'expression (jeu, simulation)/ (Do other expression activity (games, simulation) | 2.49% |
| Travaillent en petits groupes (Work in small groups) | 2.37% |
| Pose de questions (Ask questions) | 2.37% |
| Travaillent en paires (Work in pairs) | 0.90% |

### 4.2.6. School materials used by teachers

As seen above, observed teachers spent a considerable amount of time on the board writing, explaining, and asking students to read from the board. It is not surprising at baseline that a blackboard occupies the first spot in school materials used most frequently by teachers. Teachers spend 50.52% of the time on the board. This finding corroborates the other data showing that teachers focused more on the board. Some of the fundamentals of early grade reading teaching and learning, such as students reading from leveled books, were seen only 1% of the time. A list of all the materials used by teachers during the observation, with the frequency with which they were observed, are included in Graph 26 below.
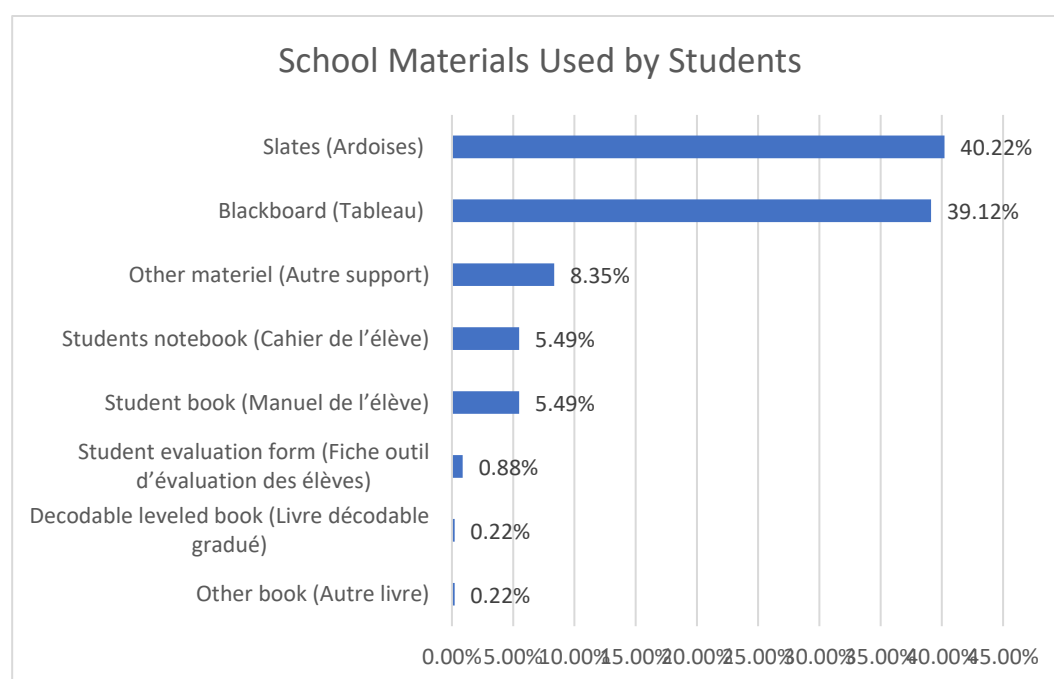
Figure 28 : School materials used by teachers



Teacher Knowledge, Attitudes and Practice Regarding Early Grade Reading: Baseline Study Report – Version B 59
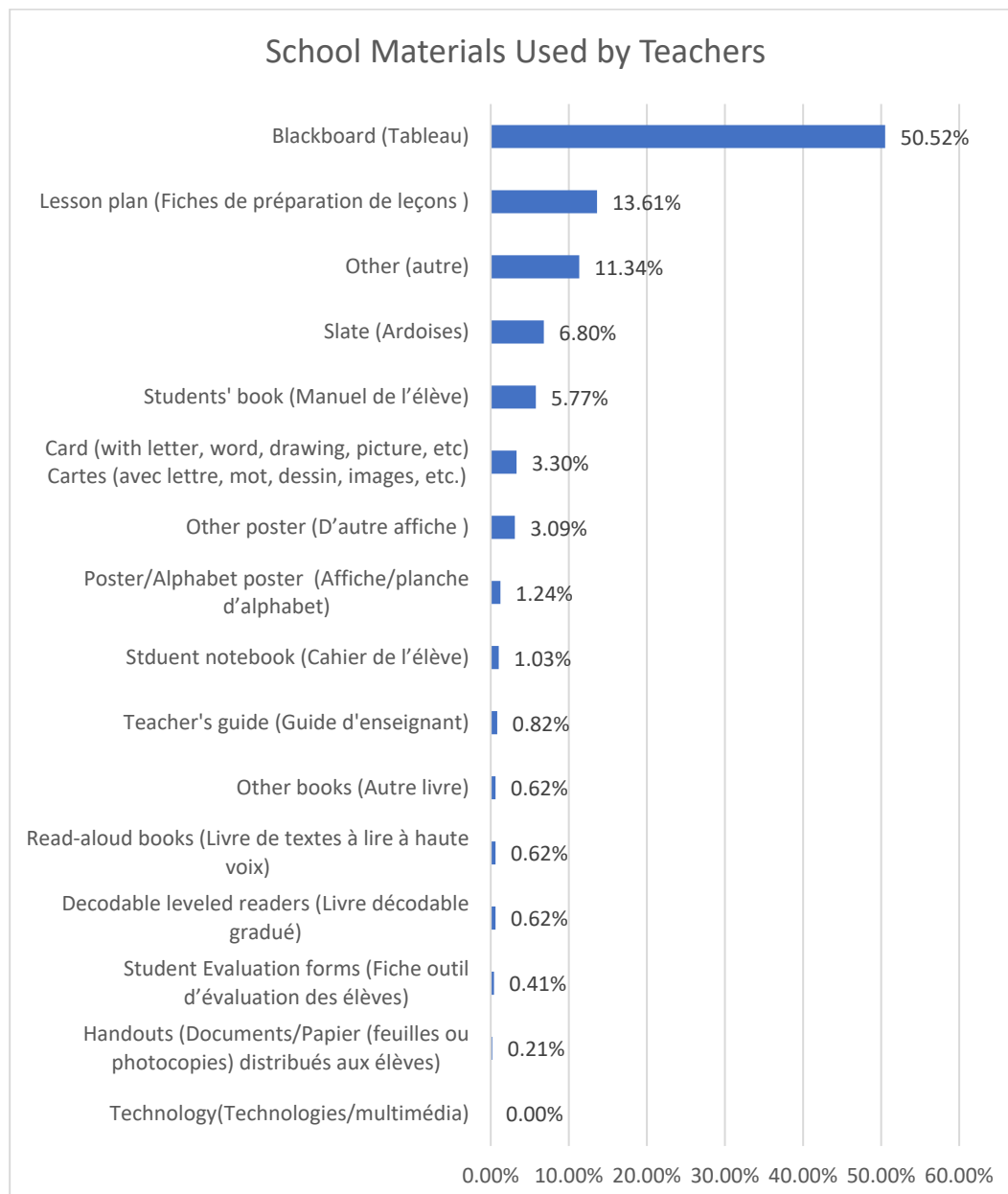
### 4.2.7. School materials used by students

Similar to teachers, students also use traditional school materials. Students use slates and the blackboard almost the same number of times, 40.22% and 39.12% of the time, respectively. **All other materials (including other materials, student textbook, student notebook, evaluation tools/forms, other books, decodable leveled readers) were used 20.66% of the time all together**. (Figure 30). Additionally, the use of more of books that enhance students' confidence in reading such as leveled readers, and other books than students' books, is very low, at less than 1% of the time.

Figure 29 : School materials used by students



The figure is a horizontal bar chart titled "School Materials Used by Students" with the following values:
- Slates (Ardoises): 40.22%
- Blackboard (Tableau): 39.12%
- Other materiel (Autre support): 8.35%
- Students notebook (Cahier de l'élève): 5.49%
- Student book (Manuel de l'élève): 5.49%
- Student evaluation form (Fiche outil d'évaluation des élèves): 0.88%
- Decodable leveled book (Livre décodable gradué): 0.22%
- Other book (Autre livre): 0.22%

# 5. KEY FINDINGS

The teacher KAP baseline study results, taking both the large-scale Component 1 survey together with the observations of Component 2, yielded 13 key findings of particular importance to the Lecture Pour Tous program. Each of these key finding is listed below along with a discussion of its significance, organized by four categories: 1) teacher self-reported knowledge vs. observed practice, 2) teacher knowledge, 3) teacher attitudes, and 4) teacher practice. Following these key findings are recommendations related to practice, policy, and further research supported by Lecture Pour Tous.

## TEACHER SELF-REPORTED KNOWLEDGE VS. PRACTICE

*Key Finding 1: Results from Component 1 of the study were overwhelmingly positive in terms of reported high levels of knowledge, good grasp of skills and sound attitudes related to reading*

Findings from Component 1 were perhaps more positive than might have been expected from a population of this nature with high percentages of teachers reporting good or very good knowledge

and skills in the teaching of reading.  This is quite in keeping with other KAP studies (see literature review).  However, in surveys teachers often tend to over-report their knowledge, skills and attitudes.  This "halo" or Hawthorne effect is acknowledged in the limitations.

### Key Finding 2: There was a discrepancy between the reported knowledge of techniques and their use in class and their actual use

Teachers reported both knowledge and use of techniques associated with reading such as the technique of "I do, we do, you do."  However, findings from Component 2 show only a minority of teachers used these techniques. It was observed in KAP Component 2 that teachers implemented the "I do" aspect of the "I do, we do, you do" technique much more often than the other parts that are focused on student practice. This is to be expected as teachers had not yet received training on these techniques and teacher-dominant exercises are common in traditional pedagogies.

### Key Finding 3: There was a discrepancy between the reported use of languages by teachers during KAP Component 1 and what was observed during KAP Component 2

Teachers in KAP Component 1 reported using national languages extensively and for a range of purposes with the national language used as the dominant language in teaching in the early grades. Teachers also reported high levels of comfort in using the L1. However, the reality, which is based on classroom observations, demonstrate that at baseline, teachers and students do not use L1 a lot in class. There is a high tendency to use French in almost every situation. Where L1 is used, it is used together with French rather than alone (translanguaging / codeswitching).  While the tools did not include interview questions for teachers to explain the purposes for using any particular language, the data indicated that when teachers used L1 – which was during 4.05% of the lesson – 47.14% of that time data collectors judged that this use of L1 was in instances when students did not understand the instruction or explanation in French. Thus, the finding teachers use French in such situations is interesting and would require further qualitative research to pinpoint the main reasons for teachers' codeswitching.

This finding is significant in that it clearly demonstrates that teachers are excited to teach in L1 but are clearly more used to teaching in French, which they tend to use as a default.  This should be taken into account in future trainings.  The level of teacher proficiency in the languages is only known through self-reporting in this study. There are several holistic techniques that can be used to verify overall proficiency in the languages including cloze tests and dictations.  During an early Lecture Pour Tous teacher training conducted after the baseline data were collected, a portion of the workshop was devoted to language and anecdotal evidence appeared to show that some teachers were struggling with the orthography of the national languages.

### Key Finding 4: Teachers universally acknowledged the role of parents and their importance in supporting the reading development of children – but in practice, engagement with parents lags behind this knowledge

Why most teachers strongly agreed with the statement that it is important for parents to help students practice reading at home, even if the parents themselves are illiterate – only 28.4% of teachers surveyed reported that they always work with a student's parents to involve all the family in helping to improve reading and only 38% of teachers reported that they always communicated with parents if children had difficulties reading. This finding is a foundation for the aspects of Lecture Pour Tous working on home-school communication and in particular to ensure that teachers are able to have a range of techniques to use when encouraging parents to work with children, in addition to program efforts to work on the community and parental side of this partnership.

## TEACHER KNOWLEDGE

*Key Finding 5: Fewer years of experience teaching and higher levels of continued professional development are both correlated to a statistically significant degree with the level of self-reported knowledge of the 5 components of reading instruction.*

In general, the less experienced teachers were statistically more likely than more experienced teachers to state that they knew the 5 components of reading. In addition, continuing professional development is strongly correlated with self-reported knowledge of the 5 components of reading. A related finding was that it was also the least experienced teachers who reported having the greatest knowledge of remediation techniques.

*Key Finding 6: Teacher knowledge about the importance of learning to read in mother tongue was high*

Teacher knowledge of the importance of teaching reading in mother tongue – and their attitudes towards children learning to reading in L1 - were very high and positive, with 76% of teachers agreeing that first graders learn better in the national language than in French and with 69% agreeing that if children learned to read in national language they could easily transfer these skills to reading in French.

## TEACHER ATTITUDES

*Key Finding 7: Teachers' self-reported level of language proficiency and levels of confidence in the national languages were low, and lower than in French, but they have positive or very positive attitudes towards the teaching of reading in national languages.*

This should not be confused with results under finding 1 above. In this finding, teachers felt significantly less confident in teaching in national language than in teaching in French (vs using L1 in class, which is different). This finding corroborates previous research conducted with Lecture Pour Tous support (such as the Teacher Mobility and Snapshot of School Management Effectiveness studies). Particularly at baseline before most teachers have had experience teaching in national languages, these are not surprising results.  Nevertheless, the fact that nearly a third of teachers did not feel confident teaching in the national languages is a finding of substance, especially when coupled with the facts that 1- they are generally young, 2- they felt that it was better for children in early grades to be taught in the national languages, i.e. languages that they understood and that it was entirely appropriate to begin to teach reading through the medium of the national languages and that reading skills acquired in this way could easily be transferred to French in due course. Findings from Component 2 showing that teachers were using French more than they reported is also of relevance.

## TEACHER PRACTICE

*Key Finding 8: Time off task is very high, more than 20% of the total time allocated to the lesson observed and only 39% of the time spent directly on teaching and learning*

The time on task component of the study was key in identifying the time teachers spend on one of three main groups of activities: learning/teaching activities, classroom management activities, or time off task. The results indicate that teachers were observed to spend more than one fifth of class time off task and approximately two thirds on each of the other groups of activities.

The time off task rate is very high in comparison to international standards. For example, Stallings et al (2014) found that effective teachers were only off task for around 3% of contact time:

> "effective teachers whose students showed gains on various standardized achievement tests distributed their time so that 50% or more class time was spent

in active instruction, 35% in active monitoring, and 15% or less in organizing and managing. In these effective teachers' classrooms, the students were engaged 94% or more of the time. They were only off task 3% of the time" (p. 2).

While the results from this study may be negative in the time-off-task and classroom management categories, the reality provides an opportunity for teachers to improve and make gains on time on task. With proper interventions, Lecture Pour Tous and Lecture Pour Tous stakeholders can help teachers change the patterns and reduce the percent spend on Off-Task and classroom activities, thus making gains in learning/teaching activities in class.

### Key Finding 9: Teachers at baseline use conventional techniques to teach reading that are not always supported by the evidence base and are different from methods promoted by Lecture Pour Tous Lecture Pour Tous

Most teacher practices observed in class fall under conventional techniques where the focus is on teachers themselves using the blackboard, explaining, and asking students to read from the board with little time for student practice. Teachers used blackboard 50.52% of the time in comparison to other materials in class. Additionally, students were rarely observed reading – including reading individually out loud only 7% of the time, reading out loud in chorus together 6.2% of the time, and reading silently 6.6% of the time. Teachers and their students also did not have sufficient materials to support different teaching and learning techniques.

### Key Finding 10: Students generally play a passive role in the learning process

The results have indicated that students do not engage in asking questions or reading from different sources.  Rather, they tend to use slates and blackboard more often. In KAP Component 2 results, 56.38% of students' activities in class were related to watching and /or listening to the teacher, copying texts on slates or students' notebooks, and writing on the blackboard while only 5.65% of their activities in class were small group work, asking questions, or working in pairs. In addition, students used slates and blackboards 79.34% of the times in comparison to other materials all together at 20.66%.

### Key Finding 11:  Teachers reported not having full competency in how to address remedial issues in reading

In KAP Component 1, teachers reported not being fully confident in providing both remedial work for the whole class but were even less certain in their ability to provide remedial work for struggling children. This is reinforced by the finding in KAP Component 2 that teachers do not test and evaluate students using informal methods that allow teachers to identify gaps in learning quickly. Instead, teacher tend to focus on administering more formal evaluations to identify learning at the class level, which takes longer to process.

### Key Finding 12: The classes being taught by teachers are large by international standards

The number of children in a class taught by the teachers in our KAP Component 1 survey is large with an average of over 40 children per class and a significant proportion of classes of over 60 children. The finding related to the large class size was also reinforced through Component 2 of the survey. This finding should be looked at alongside the fact that teachers self-report that children in their classes read aloud every day. If this is really to happen, it means that special techniques need to be used if all children are to get the opportunity to read in some of the very large classes reported in this study.

For example, teachers residing in the areas of Kaolack and Fatick who were female, assistant teachers (*instituteurs adjoints*) who knew little or nothing at all about key aspects of teaching reading, such as techniques for 100% fair participation of each student in the class, good practices for the practice of reading by students at home, or the five components of reading instruction.

A further group of teachers was made up of mostly assistant teachers living in Matam. Most held qualifications up to the level of the *Certificat Elémentaire d'Aptitude Pédagogique* (CEAP) and reported always using techniques such as making all children read aloud in every lesson; remedial work with all the class as well as special remedial exercises with pupils who have special needs. However, given that this group also reported high levels of knowledge of techniques such as "I do, we do, you do" and also reported devoting at least 60 minutes a day specifically for the teacher and learning of reading in national language – two elements that had not yet started in the target zones at baseline – it may be that this particular group simply had higher levels of reporting knowledge or practices that they perceived they should have but had not actually yet begun in reality.

# 6.   RECOMMENDATIONS

Based on the findings above, the study team proposes a series of recommendations presented here in three main categories: 1) recommendations for practice, i.e. related to the materials, training and professional development and support, 2) recommendations for policy, and 3) recommendations for further research. These recommendations do not include the full slate of interventions planned under Lecture Pour Tous program to improve teacher knowledge, attitudes and practices but rather emphasize planned or new aspects deemed particularly important given the study findings.

## *Recommendations for practice (materials, training, and other continuous professional development and support)*

**Recommendation 1**: **Ensure teaching and learning materials and associated training and coaching provide sufficient guidance and time to teachers for significantly more student practice reading aloud, particularly with teacher guidance, and in ways that increase opportunities for all children to regularly practice new letters and skills such as reading connected text. Lesson plans and activities must also account for both large class sizes on average as well as a variety of class sizes and configurations that also include multi-grade classes.**

This recommendation is based on the KAP findings that most teachers at baseline are using conventional ways of teaching unsupported by the evidence base on what works to get children reading. Students in turn are getting very little reading practice and guidance from their teachers while they practice – which has been shown to be one of the single most important activities for students to master reading connected text.

These findings also suggest that the highly structured lesson plans developed with Lecture Pour Tous support will likely be critical for guiding teachers and students correctly through all three parts of the "I do, we do, you do" routines – particularly the "you do" component that provides for guided individual reading practice. The baseline findings showing a dearth of reading materials in the classrooms strongly support plans to ensure that students not only have different reading materials but also that these materials contain sufficient text for students to progressively practice new reading

skills again and again until they master them and pass to the next level of reading skills.

Furthermore, the findings also suggest that it is important for the instructional routines and lesson pacing in teacher guides to account for both large class size and a variety of class configurations, guiding teachers through how best to ensure that all students get sufficient practice on each new reading skill to ensure mastery. Given the high rates of classes with more than 40 students, additional planning in future editions of the teacher's guide and textbook as well as during teacher training and coaching may be needed to ensure that individual students regularly cycle through the "you do" portion of the lesson and otherwise get as much time as possible for individual practice with correction. Large class sizes may also have an impact on techniques for using leveled readers, and possibly on how they are packaged (i.e. the number of titles bundled in a single booklet), to ensure that opportunities for children to read are maximized to the full. Specific techniques need to be used if all children are to get the opportunity to read in some of the very large classes reported in this study.

Per the established evidence base on changing teacher practice, the findings also reinforce the anticipated critical importance of coaching in supporting the transfer of training on new skills and materials to their actual and correct use in the classroom. During training, it is also critical to allow ample opportunities for teachers to practice new techniques. As proven successful in similar contexts, clearly – and correctly – demonstrating the new techniques as alternatives to those they commonly use is a first step, then making the time for repeated practice with gentle correction where needed. When reforms are implemented at large scale as in Senegal and training cascades are necessary for both teacher training and coach training, videos of both good teaching and good coaching practice can be very important for ensuring that teachers and coaches see correct practice and practice modeling this correct practice, as very often not all trainers have themselves fully mastered the new techniques and materials well enough to always provide the correct model.

**Recommendation 2: Ensure that teacher guides, training, coaching and any ICT-enabled continuous professional development (CPD) for teachers include very clear guidelines and tools for continuous student assessment and techniques for a minimum of differentiated instruction, and for both group and individual remediation based on these assessments. Review whether any procedural or policy guidelines might also be updated.**

The recommendation is partially based on the findings that teachers on one hand showed a lack of confidence in how to address remedial needs in their classes and, on the other hand, the observation that teachers rarely used continuous assessment in practice. Teacher materials will need to include very clear instructions and tools for continuously assessing students to identify gaps in learning and how to address them quickly using the materials provided and differentiating instruction (or materials, such as leveled readers) and providing remediation where needed. Training and coaching sessions must also allow ample time to practice using these continuous assessment instructions and tools. The KAP baseline findings also support plans, as also done in other similar contexts, to have school directors and inspectors do snapshot assessments of students around each coaching session to check that they are not falling behind while training the teachers themselves to carry out this important function and to respond accordingly with improved instructional practice or remediation as needed.

**Recommendation 3: Ensure training and support to teachers includes clear, practical guidelines and tools on how to communicate and collaborate with parents and other community members to support reading out of school.  Include focused training and support to teachers to collaborate with parents and other community members to support reading out of school.**

Given the findings already high levels at baseline of teacher knowledge and positive attitudes related to the importance of parental and community roles in their children's reading but low levels of teacher communication and engagement with parents in practice, the program should proceed with confidence with planned teacher training and pilot simple tools for home-school communication, while providing school directors and inspectors the tools, training and follow-up support they need to also be conduits and advocates for teacher-home collaboration on reading.  This work can be done in all schools in addition to the mass communication campaign to increase home- and community engagement in early grade reading and the focused work of the interventions at the community level in 20% of the program's targeted school-communities.

**Recommendation 4: Review the nature and quantity of pre-service and in-service training on teaching in L1 given that this was identified as a challenge, and make support to teaching in L1 an explicit focus during follow-up coaching sessions and other CPD.**

This recommendation is based on the study findings – corroborated by other Lecture Pour Tous-supported research and learning – that teachers are not used to teaching in national languages, are not very comfortable reading in these languages or using them to teach, and while they reported using national languages often in the classroom (as is sanctioned by the Senegalese education system to help students be at ease, even while French is the only official language of instruction), in practice they did this far less often than they said they did.  Where modules for training teachers on how to read, write, and teach in national languages already exist, some review and possible expansion may be helpful to ensure that they are meeting the needs of teachers implementing reforms introducing these languages as the medium of instruction.

**Recommendation 5: Consider increasing training, coaching and CPD time on classroom management and time on task, as well as ensuring that lesson plans account for classroom management needs and are otherwise designed for staying on task.**

Given the findings of very low levels of time on task in the classrooms observed – with only 39% of the time shown to be dedicated to teaching/learning activities and 21% of the time fully off-task (neither teaching/learning or classroom management), very structured teacher lesson plans may end up critical to increasing the time students actually get learning and practicing to read. This becomes all the more important given the rate of large class sizes and the existence of multi-grade classrooms, which may require teachers to know and master specific techniques for classroom management and lesson routines as noted above to ensure that all children have sufficient time to practice.

Time on task should also be a specific focus of teacher training and coaching. This includes ensuring teachers get sufficient guided practice using the teacher guides in ways that allow them to follow the lesson routines efficiently to itself increase time on task; the use of videos as noted above to model this correct use of the materials, as well as other classroom management techniques, could also be helpful. Regardless, explicit training on classroom management during training of both teachers and coaches will be important.  During coaching sessions, directors and inspectors should ensure teachers are aware of the concept of time on task, can demonstrate how to decrease time-off task, and can implement tips on aspects of classroom management such as positive redirection of behavior and correct use of the lesson plan routines to ensure that maximum classroom time is spent on learning.  Consider a "cheat sheet" to help teachers maximize time on task.

**Recommendation 6: Capitalize on the fact that the work force is relatively young therefore possibly more willing to embrace change**

Given the findings that the teaching workforce is quite young and has demonstrated a strong willingness and excitement about teaching reading in L1 – and, interestingly, that years of experience is related *inversely* to knowledge of evidence-based reading instruction elements – there is potential for Lecture Pour Tous and the MEN to capitalize on this. These younger teachers may be more willing to adopt new instructional techniques and materials, and it is a positive foundation for pre-service training of brand-new teachers just about to enter the workforce. Overall, these findings demonstrate an opportunity to bring about positive change in early grade reading in Senegal due to the willingness of the "young majority" to be a part of this change. On the other hand, more may need to be done to influence the more experienced educators – including school directors and inspectors – to support this reform mindset among the younger members of the teaching corps.

## *Recommendations for policy or procedural guidelines with associated training and support*

**Recommendation 7: Set an objective of increasing time-on-learning and reducing time-off-task and time spent on classroom management while providing the support and supervision to teachers to achieve it.**

Based on the finding that teachers spend more than 20% of contact time in a lesson off-task activities and about 40% of the time on classroom management activities, something more than materials and training (noted above), may be needed. From a policy angle, Lecture Pour Tous and the MEN (as well as other stakeholders) may want to look into setting benchmarks for time-on-task and work collaboratively to achieve them. An example would be to try to achieve the percentages given below.

Table 15: An example of potential benchmarks for time-on-task

|  | Baseline | Midline | Endline |
|---|---|---|---|
| **Learning/Teaching Activities** | 39% | More than 50% | More than 60% |
| **Classroom Management Activities** | 40% | Less than 35% | Less than 30% |
| **Time off-task** | 21% | Less than 15% | Less than 10% |

The advantage of this exercise is that all stakeholders will be contributing to achieving this goal through policy as well as training, coaching and CPD. If benchmarks like these are met, the time-off-task percentage will be close to international standards, thus creating environments for effective teaching and learning in class and getting much closer to the one hour of reading instruction daily that evidence has shown is needed for children to learn how to read.

**Recommendation 8: Review and consider potentially updating official guidelines and related training on when and how national languages (L1) and French (L2) should be used in the classroom – both in cases of schools piloting the Lecture Pour Tous or other programming using national languages alongside French as well as in schools for which French remains the single official language of instruction**

The MEN's bilingual reform plans – with the intention to convert the primary education system in Senegal from French as the sole medium of instruction to using national languages as the medium in the early grades with a transition to French – lends particular importance to the finding that teacher self-reporting on their use of languages in class was quite different from their actual practice in class. Given this, it might be helpful for the MEN to review their current guidelines and prepare new ones in line for the introduction of national languages for instructions, and pilot these guidelines through Lecture Pour Tous. This would be done in conjunction with training, coaching and CPD activities

supporting the use of national languages for instruction beginning with the L1 reading classes supported by Lecture Pour Tous.

## *Recommendations for future study or analysis*

### Recommendation 9: Triangulate data from the teacher KAP baseline with other research and monitoring supported by Lecture Pour Tous.

These other sources include the Teacher Mobility Study, SSME, Local Education Monitoring Approach (LEMA), teacher observation data collected by inspectors in their supervision role, and recent small-scale direct assessments of teacher abilities in the target national languages to better understand teacher knowledge and training needs – potentially differentiated by teacher qualification level and years of service or other variables – and use these conclusions to inform future pre-service and in-service training programming, coaching, and ICT-based materials and strategies for blended learning as part of professional development.

### Recommendation 10: Streamline the teacher KAP instruments in conjunction with other data collection supported by Lecture Pour Tous where possible to reduce data collection burden while maintaining core items needed for comparing between teacher KAP baseline, midline and endline.

While the response rate for the KAP survey component was high, we recognize that there is an opportunity to shorten it in places while maintaining key questions to be tracked at midline and endline as compared to baseline, reducing respondent fatigue and increasing response rates. The the observation tool should also be updated to adjust or eliminate the few questions that were poorly understood, and additional effort needs to be made at endline and midline to address other limitations such as observing only in "reading" lessons (and comparing only "reading" findings) moving forward.

Additionally, in mapping where data related to teacher knowledge, attitudes and practices is now being collected across the various monitoring, evaluation, research and learning activities of Lecture Pour Tous will likely reveal additional opportunities to reduce unnecessary redundancies and more systematically analyze data that would be helpful to triangulate or compare – for instance, analyzing the inspector-administered teacher observation grids done at large scale across program zones in conjunction with findings from the midline and endline KAP observation using the Stallings-inspired tool. Additionally, the teacher questionnaire in the SSME and LEMA assessments could be updated to include questions for discussion to test actual knowledge (versus self-reported knowledge) and dig into where teachers feel like they are making the most or least progress in bridging knowledge and practice. These questionnaires, as well as school visits conducted by Lecture Pour Tous staff, could also be opportunities to gain further understanding on attitudes, for which self-reporting is particularly prone to the Hawthorne effect. This recommendation is informed by the literature review that latent attitudes held by teachers can have a deep influence on their teaching.

### Recommendation 11: Conduct further research into teachers' demonstrated levels of proficiency in the national languages and feed results into updated pre-service and in-service training offerings as well as coaching and other CPD measures

This recommendation is based on our findings that teachers report their levels of proficiency in national languages as low and that it was observed that teachers predominantly use French in class. Since only just over 30% of teachers reported feeling completely comfortable teaching in the national language due to their own level of proficiency and past Lecture Pour Tous research and learning corroborates this perception, it might be helpful to have more concrete data on actual, demonstrated proficiency in national languages to check whether teachers are under reporting

performance or whether their level of proficiency is in fact low. There are several tests of overall proficiency in a language, such as dictation or a cloze deletion test, that could give a good overall picture of teachers' language levels. Such tests could be carried out anonymously, but the results would enable a feedback loop into future training either by devoting a greater period of time to upgrading of language proficiency or if teachers already possess sound proficiency in the national language by building up their sense of confidence in its use.

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# 8. ANNEXES

**Annex 1: KAP Component 1 instruments: see attached PDF file**

**Annex 2: KAP Component 2 instruments: see attached PDF file**