Evaluation of Mali's Mother-Tongue Early Grade "Read Learn Lead" Program

Year 2 Technical Follow-up Report with Focus on Teacher and Classroom Practice

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List of Acronyms

CAP	*Centre d'animation pédagogique* (pedagogical support jurisdictions)
DEF	Diplôme d'Enseignement Fondamental (basic education teaching diploma)
EGRA	Early Grade Reading Assessment
FPC	Finite Population Correction
IEP	Institut pour l'Education Populaire (Institute for People's Education)
LOI	Language of Instruction
MEALN	*Ministère de l'Enseignement, de l'Alphabétisation et des Langues Nationales* (Malian Ministry of Education, Literacy and National Languages)
NGO	nongovernmental organization
OLS	Ordinary Least Squares
PC	*Pédagogie convergente (*Convergent pedagogy—an active method of language instruction developed in Belgium and employed in Mali and elsewhere)
PHARE	*Programme Harmonisé d'Appui au Renforcement de l'Education* (Harmonized program of support to strengthen education)
QEDC	Quality Education in Developing Countries
RCT	randomized controlled trial
RLL	Read-Learn-Lead Program
SMRS	Systematic Method for Reading Success
SSME	Snapshot of School Management Effectiveness
USAID	United States Agency for International Development

Executive Summary

Context. Since the early 1990s, reading instruction in Mali's elementary schools has been pluralistic, with French-language and national-language instructional approaches coexisting, even across public schools. The Institute for Popular Education (*Institut pour l'Éducation Populaire*, or IEP) designed the Read-Learn-Lead (RLL) program to demonstrate that the national languages-based Curriculum approach—if properly implemented and supported—can be a viable and effective approach to primary education. Building on IEP's experience adapting the Systematic Method for Reading Success (SMRS)[1] for the Malian setting in Bamanankan language, the RLL program involves materials development, capacity development, formative student assessment, documentation, and stakeholder participation. The program's "Learn to Read" results set focuses on developing materials and teacher capacity to support systematic reading instruction and practice in Grades 1 and 2. In 2009, with funding from the William and Flora Hewlett Foundation, IEP began to extend this results set to three additional national languages (Bomu, Fulfulde, and Songhai) and to 210 additional schools.

In parallel, the Foundation engaged RTI International to conduct an independent evaluation of the effectiveness of the "Learn to Read" results set over the course of this extension. The evaluation sought to examine the effectiveness of the program in producing early grade readers and the human and material resources necessary to do so, and how language of instruction and length of exposure may affect this process.

Evaluation study design. The external evaluation of RLL follows a mixed-methods approach, with a randomized controlled trial (RCT) at its core. With only one RLL treatment group and one Comparison group (102 schools total, with randomized assignment at baseline), the RCT portion allows for examination of the impact of the full RLL package only. Additional survey and classroom observation information have made it possible to explore the relative apparent contributions of program components and contextual factors using correlational methods and to adapt the analysis to adjust for certain realities encountered on the ground. Student reading assessments, surveys, and classroom observations were carried out in 2009 (baseline) and 2010 (first-year follow-up) as part of the evaluation study. In 2011, the study continued tracing the evolution of the program in terms of teacher and classroom practices and resources distributed, through systematic teacher and school director surveys and classroom observation, a qualitative case study of nine schools, and a study of key costs associated with implementation of the program. Collection of endline results in terms of children's learning, were postponed until 2012, given some delays in program roll-out.

The present paper, building on a report by Fomba (2011), presents the results of the 2011 systematic surveys, teacher assessment and classroom observations, against the backdrop of baseline and 2010 follow-up data, which showed significantly higher scores on all reading measures for RLL program participants in Grades 1 and 2 after just one year of the program.

1 SMRS, developed by Sandra Hollingsworth and Plan International, was itself adapted from the SIPPS (Systematic Instruction in Phonemes, Phonics, and Sight Words) model developed by Shefelbine and Newman (2001).

Similarities and differences across RLL and Comparison schools on school and classroom characteristics, resources, and practices at year 2. We examined data gathered on school, principal, teacher, and classroom characteristics at the 2011 follow-up year by RLL treatment and Comparison groups, and tested for association with group membership. RLL treatment and Comparison schools were statistically similar on most general school characteristics examined, with the exception of availability of drinking water (with Comparison schools having some advantage on this point). School principals of RLL and Comparison schools also responded similarly on measures of pedagogical leadership. Schools were also similar in the proportion whose principals had received training in national languages instruction, and on the average number of years that the schools have followed the Curriculum. As expected, RLL principals were much more likely to have received RLL training than Comparison school principals, but they were also more likely to report having trained teachers on Curriculum program methods, even though such training is a Ministry-wide initiative intended to be applied in all Curriculum schools, whether participating in the RLL program or not.

Like the school principals in the sample, teachers in RLL and Comparison schools were similar on nearly all general pedagogical background and support variables. Nearly all teachers canvassed in both types of schools reported that their lesson plan was reviewed at least weekly, and that their classroom was observed by the school Director or Assistant Director. Frequency of classroom observation showed considerable range, although the only statistically significant difference found between the two groups was for Grade 2 teachers, with 20% of Comparison teachers compared with only 4% of RLL teachers indicating that their classroom was observed very infrequently (once in two months or less).

Reading instruction in national languages is a recognized official approach in the "Curriculum" public schools from which our sample was drawn, with accompanying teacher training and educational materials to be provided by the Ministry. And yet, the data show that Comparison-school teachers in both Grade 1 and Grade 2 were less likely than their RLL peers to have received any training in national languages instruction. At the same time, over 20% of RLL teachers also reported that they had not yet received RLL training by year two of the study. Similar proportions of Grade 1 and Grade 2 teachers in RLL and Comparison schools reported receiving materials from the Ministry for teaching in national languages; however these proportions were strikingly low (nowhere more than 58%) for a distribution intended to reach all Curriculum schools. RLL classrooms were found to be better equipped than Comparison classrooms on most other measures of material inputs in national languages. RLL students were more likely than Comparison students to have the national language schoolbook; wall displays and teacher-made materials in the language of instruction were also significantly more available in RLL than in Comparison classrooms, in both grade levels.

In terms of their own familiarity with the language of instruction, teachers in RLL classrooms were more likely to be teaching in their own maternal language than those in Comparison classrooms. On a reading assessment in national language, Grade 1 RLL teachers and Comparison teachers displayed similar phonemic awareness, reading, and writing skills in the language of instruction, although Grade 2 RLL teachers displayed significantly higher performance overall than their Comparison counterparts.

In terms of generally agreed good classroom practices for early grade learning, the study found that RLL and Comparison classrooms did not display many significant differences. In most cases at least 70% of teachers—whether RLL or Comparison—were observed to display a given practice. RLL teachers were more likely to refrain from speaking French than their Comparison school counterparts, but the difference is significant only for Grade 1. RLL teachers in both Grade levels were more likely than Comparison teachers to circulate among the students in the course of the reading lesson, even though physical space of Grade 2 classrooms was judged by observers to be less well-organized for learning in RLL than in Comparison school classrooms. Over 14 general good classroom practices, the proportion of observed practices overall was significantly higher in RLL than Comparison classrooms for Grade 1 only.

With regard to student engagement and student-centered activities, in both grade levels, children in RLL classrooms were more likely to come to class with chalk and slate than in Comparison classrooms. RLL classroom teachers were more likely to employ active group reading aloud and to work with individual students, whereas Comparison classroom teachers favored individualized student oral reading and group repetition and reciting. Overall, RLL classroom teachers were found to use more child-centered activities in general than their Comparison counterparts.

Classroom observers in 2011 also looked for evidence of whether Grade 1 teachers were making use of specific practices consistent with the RLL program's seven-step process for a given reading lesson. While these practices were far from absent in Comparison schools, RLL classrooms were, not unexpectedly, more likely to display most of the practices relating to the formal steps of an RLL reading lesson.

Evolution of school characteristics and instructional practice. We explored the progression across years of school characteristics and instructional practices for evidence of possible effects of the RLL program, using paired t-tests to trace change in each school and for Grade 1 and Grade 2 within the school over time. Change over time was evaluated separately for RLL and Comparison schools and classrooms.

For evidence of pedagogical leadership and teacher preparation for national language instruction, school principal survey data confirm that Comparison as well as RLL treatment school principals trained teachers in national languages instructional methods across the years. However, while the proportion in Comparison schools declined over the years, it increased dramatically in RLL treatment schools, supporting the conclusion that RLL involvement encouraged this role. Teachers' own reports of being trained in national language instruction (considering all sources of training, not solely that provided by the principal) decreased slightly between 2010 and 2011 for both RLL and Comparison groups and both grade levels. The greater decline observed in Comparison classrooms (significant only for Grade 2) from 2010 levels contributed to the significantly higher proportion of RLL school teachers who report having received training in national language instruction compared with their Comparison counterparts in 2011, whereas the two groups had been equivalent on this measure in 2010. On six other indicators of pedagogical leadership and teacher preparation and support, only one significant change over time was found. A significantly smaller proportion of teachers in RLL Grade 2 classrooms reported in 2011 than in 2010 that their classroom was observed only every two months or less: in other words, the frequency of observation of RLL Grade 2 classrooms increased from 2010 to 2011.

The government's Curriculum program intended to provide schools and teachers with books and other instructional materials in the specific language of instruction. And yet, the (relatively modest) proportions of teachers who reported having received Ministry books on teaching in national languages did not change significantly between 2009 and 2011 for any group, whether Grade 1 or Grade 2, RLL or Comparison. Regarding the proportion of students with the schoolbook, we found increasing scarcity of the schoolbook over time for Grade 1 Comparison classrooms and a solid and increasing advantage of RLL Grade 2 classrooms on this indicator over time. These data suggest that RLL has effectively contributed to ensuring that Grade 2 classrooms and students are supplied with Government national language schoolbooks, even as Comparison schools and RLL Grade 1 classrooms remained at a low level of supply.

Chalk and slate, critical implements for early grade reading acquisition in the Malian setting, represent family or private contributions. Both RLL and Comparison Grade 1 and Grade 2 groups display increases from 2010 to 2011 in the proportion of classrooms in which over 75% of students have chalk and slate. Only Grade 1 RLL classrooms show a significant increase, however, contributing to their significant advantage over Grade 1 Comparison classrooms on this indicator in 2011. In different ways at Grade 1 and Grade 2, the RLL program over time appears to be having a positive effect on students' material environment for learning, encouraging families and Government to provide needed inputs, above and beyond the specific inputs made directly by RLL.

Examining whether teachers' practices have changed over time in RLL and Comparison classrooms, the study team found that for both grade levels and in both RLL and Comparison schools, the average number of good practices observed increased, particularly in Comparison schools. These increases were significant for Grade 1 in both RLL and Comparison schools, but only for Comparison schools in Grade 2. For Grade 2, the relatively greater increase in Comparison schools by 2011 effectively eliminated a significant advantage of RLL classrooms found in 2010. Aligning the lesson with the Curriculum-program-prescribed "Lesson of the day" roughly follows the same pattern; although RLL classrooms were already nearly "topping out" in 2010 and maintained these levels in 2011, Comparison schools showed improvement from 2010 to 2011, again effectively eliminating the advantage of RLL classrooms found on this variable in 2010, for both Grade 1 and Grade 2.

The proportion of RLL classrooms in which teachers paused to check students' understanding in the course of the lesson was observed to increase significantly, and more markedly, than in Comparison classrooms from 2010 to 2011 in both Grade 1 and Grade 2 classrooms. These increases, however, do not yet translate into a significant advantage of RLL classrooms over Comparison classrooms in 2011. Writing the lesson on the blackboard prior to class displays increased practice in both RLL and Comparison classrooms and in both Grades 1 and 2. In RLL classrooms, the proportion is about the same for both grade levels and increases at a roughly equal rate, whereas in Comparison Grade 2 classrooms it is substantially higher than in Grade 1, in both years. This pattern suggests that on the whole, Grade 1 Comparison group teachers, while changing, have continued to lag behind their Grade 2 colleagues in adopting this practice in their classrooms.

RLL teachers in both Grade 1 and Grade 2 were observed to circulate among the students in their classrooms more often than their Comparison school counterparts. For all groups the practice

generally declined from 2010 to 2011, particularly in Comparison classrooms. Avoidance of the use of French in the National Language classroom is another practice that appears to have declined from 2010 to 2011, although this change is significant only in Grade 1, for both RLL and Comparison classrooms. In other words, teachers reported using French more frequently in class by 2011, though still at a relatively low level in RLL classrooms.

Overall, the examination of change over time in general good classroom practices presents a pattern of improvement (increase) in most practices for both RLL and Comparison classrooms, a few instances of decline, and some interesting Grade-specific variations. With a few exceptions, the result is that the RLL advantage found in several practices in 2010 has dissipated by 2011, suggesting a tendency for RLL teachers to relax in the use of these practices, even as their Comparison peers increasingly adopt some of them.

Regarding student engagement and student-centered activities, it is noteworthy that RLL Grade 1 average enrollment in 2011 was significantly smaller (at 66.1 students) than it had been in 2010 (nearly 78 students), and was no longer significantly different from that of Comparison Grade 1 classes. This change would suggest positive movement toward more reasonable class size in RLL schools, to be confirmed (or not) only with subsequent years of data. Even with more reasonable class size, however, RLL classrooms did not advance as much as Comparison classrooms on a summary measure of student engagement between 2010 and 2011, eclipsing the significantly greater showing of RLL Grade 1 classrooms on the measure found in 2010.

On observable measures of student-centered activities led or organized by the teacher (teacher's focus on a small group, teacher's focus on a single student, a single student reading aloud, students reading aloud together, students repeating or reciting aloud, one or more students writing at the blackboard, and students writing in their notebooks or slate), RLL classrooms did not differ significantly from Comparison classrooms at baseline. By 2011, however, Grade 2 classrooms showed substantially different results on a number of measures. At 2011, RLL Grade 2 classrooms were significantly more likely to engage students in reading aloud together for a greater proportion of the lesson, whereas Grade 2 Comparison classrooms declined slightly in this activity. RLL Grade 2 teachers were also significantly more likely to spend a greater proportion of lesson time on students writing at the blackboard in 2011 than in 2009, although the differences between RLL and Comparison classrooms were not significant in either year.

The proportion of classroom activities in which students were repeating aloud or reciting increased significantly from 2009 to 2011 for both RLL and Comparison classrooms, whereas on measures reflecting teacher focus on small groups and activities with individual students, both RLL and Comparison classrooms declined significantly.

In summary, the year-on-year analyses helped clarify whether significant differences observed at 2011 between RLL and Comparison schools and classrooms were simply the continuation of prior differences, or differences that emerged and strengthened with the progress of the RLL intervention. The results suggest that RLL has played an important role in shoring up the Curriculum program's preparation of school principals and teachers to carry out national language reading instruction, and ensuring that schools, teachers, and students have the necessary material inputs to support this instruction.

At the same time, the examination of observed and reported classroom instructional practices and student engagement over time has produced a much more nuanced picture. Comparison classrooms were found to display changed, often improved, practices by 2011, almost as often as RLL classrooms. In addition, RLL classrooms were found to display some areas of slippage from good practice between 2010 and 2011, such that some of the apparent benefits of RLL participation found in 2010 were no longer evident in 2011.

Variability of inputs and practice across RLL schools. The study team also examined whether RLL inputs were uniformly available as intended across schools within the treatment group (fidelity of implementation), as well as whether teachers were able to make similar use of these inputs (effectiveness of implementation) in their classrooms. The relationship of official national language of instruction to variability within the treatment group was also explored.

With regard to school staff preparation and training for participation in the RLL program, the data overall present a relatively good proportion of school principal preparation and engagement, although 20% of RLL school principals reported that they had not participated in any IEP/RLL training. Among principals of Bomu-language RLL schools, only half reported receiving IEP training, or training teachers in the Curriculum program. As for teachers, overall, a solid 86% of RLL teachers reported having received training in national languages, although only 76% reported that they had participated specifically in IEP's training on the RLL approach. Teachers in Fulfulde-language RLL schools appeared to be particularly disadvantaged, with only 67% of them reporting that they had benefited from the IEP training. In addition, only 75% of teachers in Fulfulde-language RLL schools indicated that Fulfulde was their own mother tongue, whereas 80% of teachers in Bamanankan-language RLL schools and over 90% of teachers in both Bomu-language and Songhai-language RLL schools, were teaching in their mother tongue.

Results on a reading assessment in national languages conducted with teachers, indicate that nearly 50% of RLL teachers overall were themselves unable to demonstrate strong literacy skills (80% average score or higher) in the language in which they were teaching children to read, even by the second year of the RLL program (2011). The proportion of teachers with particularly weak skills was found to be highest in Fulfulde-language schools (with 44% of teachers unable to obtain a score of 70% correct), followed by teachers in Songhai-language schools (37%) and Bomu-language schools (28%). At the same time, some of the most skilled teachers in terms of literacy in language of instruction were also found in Fulfulde-language, as well as Bamanankan-language RLL schools.

The RLL approach also places an emphasis on the availability of appropriate and varied materials to foster reading in the national language. During 2011 classroom observations, the study team found school textbooks in the language of instruction in fewer than 60% of RLL classrooms overall. Bamanankan- and Bomu-language classrooms fared better, while only 44% of Songhai-language classrooms and 20% of Fulfulde-language classrooms were found to have textbooks in the language of instruction. Availability of RLL books was substantially higher, but over 20% of RLL classrooms were still found not to have these books in 2011, including 40% of Fulfulde-language classrooms. Only a small proportion (9%) of RLL classrooms had any other books in the language of instruction, with Songhai-language classrooms (24%) being somewhat better provisioned than others. Wall displays from MEALN, IEP, and possibly other sources were somewhat more in evidence and followed the pattern of textbook availability overall, with

Fulfulde-language classrooms again being the least likely to be provisioned. At the same time, Fulfulde-language classrooms were among the most likely to have teacher-made language of instruction (LOI) materials (70% of these classrooms, following 75% of Bomu classrooms), in part, no doubt, to compensate for the lack of print media. The study team was unable to find a single type of material in the language of instruction, even teacher-made, in 16 RLL classrooms. These data underline the fact that, even with the important contributions made by RLL and other sources, including individual teachers, a substantial number of RLL classrooms remain lacking in the most basic instructional materials.

Turning to variability of teacher instructional practice observed in RLL classrooms, 64% of RLL teachers observed in 2011 were found to employ 13 or all 14 of a series of general good classroom practices in their reading lesson. Over 90% of teachers in Bamanankan-, Fulfulde-, and Songhai-language classrooms were found to display at least 10 of the 14 practices, compared with 75% of teachers in Bomu-language classrooms. Lessons were found to be participatory and aligned with the Curriculum program "lesson of the day," and teachers paused in the course of the lesson in over 90% of RLL classrooms overall and in nearly all Bamanankan classrooms. All of these practices were relatively less evident in Bomu classrooms in particular, however, with 25% of Bomu-language classroom teachers not found to employ a given practice among these. Twenty percent of Fulfulde-language classrooms were also not found to display alignment with the lesson of the day. Circulating among the students, providing the lesson on the blackboard from the start of the class, and refraining from the use of French were also practices found in the majority of RLL classrooms. Still, over 20% of the RLL classrooms were not found to employ one or more of these, with higher proportions on some practices for some language groups. In other words, RLL teachers on the whole displayed many positive and child-centered classroom practices, although they were not found to be using the full range of good practices universally.

Looking more specifically at the seven steps of an RLL Book 1 lesson, the study team again found varying degrees of implementation. Teachers in over half of all RLL Grade 1 classrooms (and 77% of teachers in Songhai-language classrooms) were observed to employ all seven steps in the course of a lesson, and over three-quarters displayed at least six steps. However, a majority (60%) of Fulfulde-language classrooms observed (although few in number) as well as 5% and 15% of Bamanankan- and Songhai-language classrooms, respectively, displayed no more than four of the seven steps in the course of a full lesson.

In RLL Grade 2 classrooms, wide variability was found in the use of nearly all of student-centered activities observed, with the single exception of "Teacher focused on small group," seldom observed across all RLL classrooms. Fewer than 8% of all RLL classrooms observed displayed this practice, which ranged by language group from 0% in Fulfulde-language classrooms to 17% in Songhai-language classrooms. On all other practices, at least one-third of RLL classrooms overall were found to diverge from others in their use or non-use of a given practice, and language groups also appeared to differ considerably (with spreads of over 20 percentage-point differences) in their use of a given practice. In summary, the data on teaching practices in RLL classrooms display considerable heterogeneity in the types of practices teachers are using. On the whole, RLL teachers are using more practices and activities that are generally regarded as effective and student-centered, and more RLL-specific activities than their Comparison group peers. And yet, some RLL teachers are not yet employing them. As with

teacher training, pedagogical support, and material inputs, RLL classrooms varied considerably in their use of RLL-supported teaching practices well into the second year of the program.

Conclusions. By the second year of the RLL program's extension to 210 schools and Bomu, Fulfulde, and Songhai languages, the study team found several areas where RLL schools had clearly advanced relative to their Comparison school counterparts. The RLL program has been considerably more effective than "business as usual" in Malian Curriculum schools, in reaching teachers and school principals with training in national language reading instruction, and in making sure a range of materials in the language of instruction were available to teachers and students in schools. In addition, these inputs appear to have translated into a greater use by RLL teachers (than their Comparison counterparts) of certain student- and reading-centered instructional practices supported by RLL and, in turn, to the higher reading scores of children that were evident by the end of the first year of the program.

At the same time, positive inputs and good practices were not entirely absent from Comparison schools, nor were they universally present in RLL schools. Even as RLL schools advanced from baseline or 2010 levels on certain inputs and practices relative to Comparison schools based on year-on-year analyses, Comparison schools made greater progress than RLL schools on others. In a few cases, the presence or frequency of a positive practice found to be significantly higher in RLL schools in 2010 subsequently declined, erasing the distinction between RLL and Comparison schools in 2011.

The RLL "Learn to Read' results set has undoubtedly made a difference in Curriculum schools and classrooms, for the most part, with more resources, teacher training, and support that have translated into better practices by year two of the study. The results indicate that vigilance is needed to ensure that all schools in the program are receiving these benefits, however, and that gains made in the first year do not slip over time.

The resources required to ensure full implementation and to plan for full extension and maintenance of the program bear examination. A cost analysis of the "Learn to Read" element of RLL, also a part of the broader evaluation study (forthcoming), will help to address these questions. The 2012 endline results, further, should permit us to confirm or correct the preliminary conclusions of this report and, notably, to determine whether the program in its third year of implementation has been able to sustain or even improve on children's reading advantage noted in 2010, and to resolve certain shortcomings of coverage noted particularly in Bomu- and Fulfulde-language schools.

I. Introduction

A. Mali's elementary education context

Elementary education in Mali has made great advances in primary education access since 1990 (Institut pour l'Education Populaire, 2008). The proportion of primary school-age children enrolled has roughly tripled since that time. Yet as primary school access has increased, the overall quality of education has not.

Following independence, Mali engaged in many years of project-based experimentation as part of the Education Reform launched in 1962, in efforts to move away from the classic French-language-only curriculum. This holdover from colonial times was judged to no longer be serving the needs of a rapidly growing and increasingly diverse primary school student population. Mali's vanguard work since the early 1990s in active instructional methods and bilingual education, which uses maternal language as well as French (Pédagogie Convergente, or PC), pointed a possible way forward. Children in schools using the PC methods tended to perform better on literacy skills in national exams than those in schools following the classic curriculum. With the launching of the Rebuilding Education Act in 1999, national-level attention finally turned to improving educational quality and learning outcomes. The current decade's curriculum reform efforts, which have resulted in an interdisciplinary, competency-based curriculum have, in principle, also incorporated the PC approach with its focus on active learning and first- as well as second-language literacy development.

In practice, the classic, French-language-based curriculum remains predominant in Malian primary schools. The competency-based curriculum is in full use in only a minority of schools, while various combinations of classic, competency-based, and PC-informed approaches to teaching and learning exist in public as well as private schools and classrooms. This mélange of curricular approaches, at times within the same schools and from grade to grade, may be hypothesized to affect student learning as much as the quality of any given approach. In addition, how the approach is actually applied in the classroom, with what proficiency and enthusiasm, with what learning materials, and with what consistency across teachers and grades, will also affect learning outcomes. Elementary education in Mali, in other words, displays great diversity with little evidence of full confidence in any one approach. Needless to say, both children and teachers endeavoring to navigate this situation and master the skills they need to succeed in it are often confused and are not benefiting optimally.

B. IEP's Read-Learn-Lead Program

In response to the current situation, the Institute for Popular Education (*Institut pour l'Éducation Populaire*, or IEP) designed the Read-Learn-Lead (RLL) program in a conscious effort to demonstrate that the new official curriculum—if properly implemented and supported—is a viable and effective approach to primary education, in its use of mother language and its application of a very specific pedagogical delivery approach. The RLL program seeks also to demonstrate how the new curriculum can be effectively implemented and supported, and what resources are needed to do so. In its own words, IEP "sees a need to demonstrate a set of model practices that target specific sets of barriers (early grade literacy, national language instructional materials, human resource mobilization initiatives) to develop a social demand for Mali's education reform policy through successful practice and relevant research" (IEP, 2008b). The

primary goal of the RLL program is to "Demonstrate that children in Malian primary schools can achieve high learning outcomes with a focused instructional model, driven by effective Malian language materials and effective teaching and supported by networks of human resources."

The RLL program is organized around three programmatic "Results sets" that are intended to support the overarching goal. It involves materials development, capacity development, internal formative and progress assessment, documentation, and stakeholder participation. The three Result sets are as follows:

- **Results Set 1, "Learn to Read" (grades 1 and 2)**, focuses on developing materials and teacher capacity (both in-service and pre-service) for systematic reading instruction and practice (both in and out of school) in four national languages. It includes ongoing formative assessment of results. This results set is being carried out in 210 schools in identified language zones of the country (Bamanankan, Songhai, Fulfulde, and Bomu languages).
- **Results Set 2, "Read to Learn" (grades 3–6, science and language arts; grades 1–6, math)** focuses on developing and testing instructional materials for active pedagogy and integrated competency-based instruction using leveled readers and other materials in foundational math (grades 1 and 2) and in later primary language arts, math, and science subjects (grades 3 through 6). This materials development set is being carried out in 10 laboratory schools during the first phase of the program in identified language zones of the country.
- **Results Set 3, "Learn to Lead,"** focuses on broadening the range of human resources mobilized and equipped to support the implementation of the new curriculum and contribute to children's learning. IEP anticipates working with strategic actors, including community youth and elders, parents, community associations, local government, university staff and students, and teacher training institutes, as well as teachers, principals, and Ministry of Education central and decentralized services. IEP's intention through this results set is to address specific problems while simultaneously building awareness, commitment, and demand for better quality schooling.

The first Results Set constitutes the foundation of the Read Learn Lead program. The program builds on IEP's experience adapting the "Systematic Method for Reading Success" (SMRS; developed by Sandra Hollingsworth and Plan International)[2] for the Malian setting in Bamanankan language, and implementing it in 22 villages during 2007-2008. RLL offers students and teachers carefully structured and systematic lessons, activities, and accompanying materials for instruction and practice on critical early reading skills in students' mother tongue during the first years of elementary school (see the text box titled IEP's RLL "Ciwara Lisent": A systematic approach to reading instruction in Curriculum Level 1). In addition to initial training and materials, teachers receive regular visits by RLL personnel for pedagogical support, including formative assessment of students' skills.

2 SMRS itself was adapted by Hollingsworth from the SIPPS (Systematic Instruction in Phonemes, Phonics, and Sight Words) model developed by Shefelbine and Newman (2001).

IEP's RLL "Ciwara Lisent": A systematic approach to reading instruction in Curriculum Level 1

The Institut pour l'Education Populaire began developing and testing the *Ciwara Lisent* early grade reading instruction program in Bamanankan language in elementary schools in and around Kati, Mali, in the early 2000s. By the time IEP expanded into other regions and languages with the support of the William and Flora Hewlett Foundation, the Institute had developed a systematic method to assist children to master the five basic reading skills—phonemic awareness, phonetic awareness, reading fluency/automaticity, vocabulary, and comprehension—by the end of Level 1 (generally, the first two years of primary school). The *Ciwara Lisent* method, as laid out in teachers' guides for students' Book 1 (developed for use generally in Grade 1, also in Grade 2 in the first year of the program in a given school) and students' Book 2 (for use in Grade 2), articulates each lesson of instruction around seven (Book 1) or five (Book 2) steps.

The seven steps of each Book 1 lesson are the following:

> *Step 1:* Review of the material read the previous day, both as a means of consolidating learning and to test children's readiness to move on to the next lesson.
>
> *Step 2:* Phonemic awareness exercises, presented orally.
>
> *Step 3:* Phonetic awareness exercises, linking written symbols (letters and graphemes) to their constituent sounds, combining alphabetic and syllabic awareness.
>
> *Step 4:* Practice decoding individual vocabulary words, to develop word-level reading automaticity and consolidate phonemic and phonetic awareness skills.
>
> *Step 5:* Study and practice reading familiar words in their written form. Each lesson introduces the child to a number of "new" reading vocabulary words, which represent familiar items and notions in the child's local environment, and encourages the child to discover meaning through context and relating the word read to the spoken language.
>
> *Step 6:* Expressive reading by the teacher, as children follow the text silently, to provide a model of fluid reading with appreciation for the text's meaning.
>
> *Step 7:* Practice in fluid reading of text and writing decodable words. In this step, students practice using appropriately leveled readers (also designed by IEP) and reproducing letters and words "of the day" after the proper forms are modeled by the teacher.

The five steps of Book 2, while similar to the above, focus more on syllables, complete words, and connected text. The above Steps 2, 3, and 4 are essentially collapsed into a single step focusing on practice with "sight syllables," while practice with familiar words (Step 5 in Book 1) extends in Book 2 (as Step 3) to include not only reading but writing of complete words, and the production of sentences and short texts.

Each book and its teacher's guide also offer a systematic, progressive presentation of letters, syllables, and vocabulary words that contain them, across 60 units ("sequences"; 40 for Book 1 and 20 for Book 2), punctuated by moments of consolidated review and evaluation after several units. The method also employs flash cards, leveled readers, and related posters that reflect the same progression of letters, syllables, and vocabulary words. Words not yet introduced at the point of a given lesson are not entirely avoided, but rather represented by stylized pictures in the RLL schoolbooks.

Source: Institut pour l'Education Populaire (2008a)

The present evaluation explores the effectiveness of this first Results Set in the Malian setting, applied in different national languages (Bomu, Fulfuldé, and Songhai in addition to Bamanankan).

C. Objectives of the external evaluation and this report

In November 2008, the William and Flora Hewlett Foundation awarded RTI a grant to conduct an independent evaluation of the effectiveness of IEP's RLL program as IEP extends it to additional Malian regions, school contexts, and languages over the 2009-2012 period. The following are overall objectives of the evaluation:

- to establish whether first, second, and third graders who have gone through the RLL program are able to meet Mali's official reading performance benchmarks in national languages
- to examine whether the RLL approach is effective not only in the major national language group (Bamanankan) but also in other languages
- to determine whether length of exposure to the RLL program (Grades 1 and 2, or Grade 2 only) affects students' performance and to what degree
- to examine whether early primary grade teachers and school heads have acquired sufficient knowledge, skills, and materials to implement the early grade reading program
- to examine the program's effectiveness, and its cost, in bringing about other anticipated outputs and outcomes
- to help develop research and evaluation capacities in the Malian education research community

By the end of 2010, IEP and Hewlett decided to postpone endline learning assessments for an additional year, from mid-2011 to mid-2012, given delays in full roll-out of the RLL program in some zones, notably with non-Bamanankan language groups. At the same time, it was agreed that the evaluation study should continue tracing the evolution of the program in terms of teacher and classroom practices and resources distributed during 2011, through systematic teacher and school director surveys and classroom observation, a qualitative case study of nine schools, and a study of key costs associated with implementation of the program. This paper, building on a report by Fomba (2011), presents the results of the systematic surveys, teacher assessment and classroom observations.

II. RLL evaluation study design with special reference to the 2011 follow-up

A. Original evaluation design

The external evaluation of RLL follows a mixed-methods approach, with a randomized controlled trial at its core. Based on a common set of criteria, a population of eligible schools in the regions in which IEP planned to introduce RLL was identified in early 2009. From this population, stratified into Bamanankan and "Other" (Bomu, Fulfulde, and Songhai) language groups, a total sample of 100 schools was drawn (50 each Bamanankan and Other). Schools within each language group were then assigned in a randomized manner to RLL intervention and Comparison groups of equal size. Within each school, Grade 1, Grade 2, and Grade 3 students and teachers and the school principal were to be surveyed, school and classroom observations were to be made, and a random sample of boys and girls in each class would respond to an Early Grade Reading Assessment and a set of demographic and other contextual questions. As originally planned, the evaluation was intended to involve three phases: A baseline evaluation in May 2009, a mid-term evaluation in May 2010, and an endline evaluation in May 2011.

From the outset, the RLL program evaluation team anticipated that there would be technical and logistical challenges to conducting a full experimental evaluation of a program as complex as RLL in Mali's predominantly rural context. To mitigate these challenges, we opted for a relatively simple design with some fundamental limitations (see Section B below). Yet even with these precautions, the initial, experimental design of the evaluation was compromised in a number of ways, with non-random factors and other design challenges intervening in the course of RLL implementation. These factors and our response to them are discussed in Section C.

B. Limitations of the design

Strictly speaking, with only one treatment group (RLL) within each language grouping, the evaluation design allows for examination of the impact of the full RLL package only. It cannot be used to determine the specific impact of particular elements of the program. Nonetheless, our mixed-methods approach—including survey and classroom observation information and affording correlational analysis as well as RLL treatment and Comparison group contrasts—does offer an opportunity to explore the relative apparent contributions of program components.

Second, while the schools in the study sample have remained the same across phases, the individual staff surveyed and students assessed were not traced longitudinally. Rather, within a given school, students were selected randomly in 2009 and again in 2010, within each grade level concerned, across all classes in the grade, and systematically by gender. In all three years, teachers of the same grades were to be canvassed, but again, a given teacher was not traced longitudinally. This sample structure affords cross-sectional analysis at student, teacher, and school levels within a given evaluation year. However, cross-year "change" analysis can reflect changes only in overall performance at the school level, and by grade level within the school.

Finally, when the school or classroom level is taken as the principal unit of analysis (as for analysis of characteristics of schools, principals, teachers, and teacher practice in the classroom), the overall sample size (80 to 100 schools total, with 20-25 schools per treatment by language group), is quite small, such that only relatively large differences across groups can be discerned.

C. Design threats and modifications post-baseline

The impact evaluation's original design rested on the notion that it would be possible to maintain two groups (RLL and Comparison schools) that at baseline had more or less the same characteristics, and that any contextual variables or changes unrelated to the treatment of interest (RLL) would be experienced in roughly the same manner across the two groups. The design was also grounded on the critical assumption that IEP would be able to roll out the RLL program as planned, reaching all Grade 1 and Grade 2 classrooms in all schools in the RLL treatment sample during the 2009-2010 school year and again the subsequent year. Third, the RLL program itself was predicated on the expectation that the Ministry of Education would have, as it had announced, provided national language instructional materials and teacher training to all "Curriculum" schools, and that RLL would build on this foundation.

1. Intervening external factors and other design threats

The analysis of baseline data (RTI International, 2010a; Friedman, Gerard and Ralaingita, 2010) showed Comparison and RLL treatment groups to be indeed sufficiently well matched—that is, reading performance at baseline was equivalent across RLL and Comparison groups, and other school, teacher, and student characteristics examined did not display significant differences. Since that time, however, it has become clear that a number of external factors may indeed have had variable and non-random impact within and across groups. These factors include other programs working in the same regions, and schools themselves, that changed their own intervention plans. The PHARE project's Interactive Radio Instruction program, for example, had originally planned for all schools to have access to the radio lessons. (Thus its effects could be anticipated to be "constant," or at least random, across schools.) Subsequent to the RLL baseline data collection, however, the PHARE project changed its implementation design, such that some schools received the radio program and additional support, others received only the radio program, and others had no PHARE intervention at all, with treatments distributed in a non-random manner.

Another design threat was the fluidity, in practice, of some of the fundamental eligibility criteria for the study population. Some schools that were officially designated and locally confirmed as national-language Curriculum schools during initial sampling efforts, were later found to have early grade classes that followed the "Classic" program of instruction (in French), or used some combination of languages and instructional programs during reading lessons. Some schools confirmed to have the appropriate grade levels and adequate "student pipeline" to warrant inclusion in the sample, were later found not to have an expected grade level in a given year. While these factors might well be random across RLL treatment and Comparison groups, the possibility that they were not demanded closer attention.

In addition, IEP's own implementation schedule entailed rapid expansion of IEP's geographic and linguistic reach (from a single Region [Kati] and language [Bamanankan], to five regions

and four distinct languages). RLL's emphasis on instructional materials (requiring development and ground-testing in each of three new languages) and on new techniques of instruction and forms of support (requiring development and delivery of training in these same languages) would be ambitious for a firmly established institution in Mali to produce and roll out in one year—even more so for an institution in rapid expansion mode, as was IEP. In addition, teacher strikes and other events effectively shortened the school year differently in different regions, further reducing schools' ability to implement the full course of RLL lessons for a given grade level. As a consequence of these factors, RLL's roll-out in Bomu, Songhai, and Fulfulde languages and zones in particular did not keep pace with the original plan. The experimental phase of the RLL program, originally due to be completed over two years with the 2010-2011 school year, was therefore extended to a third year.

Furthermore, at the beginning of the 2009-2010 school year the Ministry did not provide training in the curriculum approach for curriculum teachers as anticipated. IEP's RLL training design builds upon the expectation that teachers will have had basic training in the curriculum approach as offered by the Ministry, with RLL providing specific and more in-depth training on reading instructional methods. While this absence of Ministry training affected both RLL and Comparison schools equally, it also undermined our opportunity to observe RLL's potential "value added" impact, had the program been implemented with the expected prerequisites in place.

2. Design modifications after baseline

In response to these various threats and events, the RLL program evaluation team was obliged to regroup post-baseline and revise our instruments, analysis plan, and calendar.

The team added a number of items into 2010 and 2011 teacher and principal surveys and observational data collections. These items were identified through discussions with IEP and local research partners and close review of the quality of baseline survey and observational data collected. They were added to provide information on key external factors that could be used during analysis to control for possible non-random "contamination" introduced by these factors.

Because of the need to better understand the complex context, the team also introduced into the evaluation design a complementary qualitative case study, carried out in 2011. This study examined nine schools, selected on the basis of their 2010 student learning results. The findings and conclusions of the qualitative study are available in the report by Diallo and Diawara (2011).

In addition, because of IEP's own extension of its pilot study program calendar into the 2011-2012 school year (to accommodate start-up delays in some sites), and the desire to have an opportunity to evaluate the program after a full implementation cycle, RTI was granted an extension of the evaluation period into the 2011-2012 year. With the extension granted at no cost, the program evaluation team was obliged to make some decisions about the best use of limited resources. The team therefore moved endline student reading evaluation to the end of the 2011-2012 school year, but continued survey and observational work in the intervening year (2010-2011) in order to have as complete a record of the implementation process evolution as possible. As noted above, the present paper reports on the findings of this work.

In sum, given all of the factors mentioned here, and despite initial design precautions, the evaluation design has departed from that of a straightforward randomized controlled trial (RCT) impact evaluation, from which researchers could confidently draw comparisons between RLL treatment and Comparison groups and attribute differences found (if any) to a program effect, or conclude, if no differences were found, that there was no program effect. Rather, the additional information gathered in post-baseline years is being used during analysis to partially correct for possibly non-random extrinsic factors and to provide richer qualitative information on the teaching-learning process actually occurring in RLL and Comparison schools. In other words, the RCT design has given way to a mixed-methods design, adding correlational analysis techniques as well as purely qualitative aspects.

D. 2011 sample of schools, teachers, and classrooms

As noted above, the full RLL evaluation study incorporated an RCT study design with learning assessments and survey of students as well as surveys of school directors and teachers and classroom observation. Because the present report examines school, teacher, and classroom practices, with only background reference to student-level characteristics and performance, the student sample is not discussed in this section. Presentation of all levels of the sample, including students, is provided in Attachment 1.

For the purposes of the RCT design, the sample of schools to participate in the evaluation had to be drawn from schools meeting a series of eligibility requirements, developed in close consultation with RLL program implementer IEP. In addition to being located within the four geographic and linguistic zones selected by IEP for the extension of its program in 2009, eligible schools had to meet the following requirements:

- Eligible schools must be teaching in Grades 1 and 2 in one of the four national languages of interest (Bamanankan, Fulfulde, Songhai, or Bomu).
- Eligible schools must be either public schools or community schools.
- Eligible schools can be drawn from both urban and rural environments.
- Eligible schools have not been previously supported by IEP.
- Eligible schools must be reasonably accessible (as determined by IEP in cooperation with local district officials)
- Eligible schools must not be one-teacher schools.

Working together with local district officials and Ministry data, IEP identified a total of 136 eligible schools across seven target pedagogical support jurisdictions (*Centre d'Animation Pédagogique*, or CAPs). These schools, distributed by CAP and language group in Table 1 below, constitute the population of interest for the purposes of this study.

Table 1. Number of RLL-eligible schools by CAP and Language in 7 RLL CAPs

CAP	Language	Eligible schools
Torokorobougou	Bamanankan	5
Kati	Bamanankan	36
Ségou	Bamanankan	17
Total eligible Bamanankan-language schools		58
Tominian	Bomu	23
Sévaré; Mopti	Fulfulde	24
Gao	Songhai	31
Total eligible "Other" language schools		78

With the list of eligible schools established, the evaluation study team proceeded to the randomized selection and assignment of schools into RLL treatment and Comparison groups for the period of the study.

From the total pool of eligible schools in each language group (Bamanankan and Other), schools were randomly assigned into RLL treatment and Comparison groups in the study sample at baseline. This process provided the highest degree of assurance that intervention and Comparison groups would have no systematic a priori differences, thereby removing many potential biases and threats to validity associated with the use of Comparison groups. Systematic random selection was carried out using an interval to count down through the school list and assign schools to RLL treatment and Comparison groups.

The target sample size for baseline data collection was set at 26 schools in each of the four treatment-language sub-groups.

Table 2 shows the number of schools in the evaluation sample as realized, by language group and treatment group, and the evolution of this sample from baseline through to the 2011 follow-up data collection. In the 2010 follow-up year, a randomly drawn sub-sample of 20 schools from each group was selected as a cost-management measure, with return to the full original sample for the 2011 follow-up collection.

Table 2. Final RLL Evaluation Sample of Schools

Group	2009 Baseline	2010 Follow-up	2011 Follow-up
Bamanankan Language (CAPs: Torokorobougou, Kati, Fana)			
RLL	25	20	25
Comparison	24[a]	20[b]	24
Other Languages (Bomu, Fulfuldé, Songhai) CAPs: Tominian, Mopti, Sévaré, Gao			

Group	2009 Baseline	2010 Follow-up	2011 Follow-up
RLL	26	20	26
Comparison	26	20	26
TOTAL number of schools surveyed			
RLL	**51**	**40**	**51**
Comparison	**50**	**40**	**50**

[a] During baseline data collection, one Comparison school formally listed as using Bamanankan language of instruction was discovered to be using French-language instruction and was therefore eliminated from the sample, resulting in a sample size of 24.

[b] Within each selected school, the school principal, a Grade 1 teacher, and a Grade 2 teacher were surveyed during each data collection, and the classrooms of the teachers surveyed were observed.

E. 2011 Data collection on schools, teachers, and classrooms

The methods and instruments used for data collection in the April-May 2011 follow-up cycle—which involved schools, teachers, and classrooms but not students—are described below, with reference to previous years as appropriate. For a more complete discussion of methods and instruments employed since the beginning of the evaluation study, please see Attachment 2.

Systematic data collection on school, teacher, and classroom practices in 2011 and earlier study years included individually administered survey questionnaires for school principals and teachers and also classroom/lesson observation protocols. The evaluation team developed and tested these instruments specifically for the purposes of this study, taking into consideration RLL instructional methods and approaches. The instruments used in 2011 are provided in Attachment 3.

1. Recruitment, training, and deployment of data collection teams

Data collection agents and supervisors fluent in each of the four study languages were recruited from among Ministry of Education staff and NGO-sector agents with prior assessment and survey fieldwork experience. These personnel were trained on the instruments and administrative aspects of fieldwork in a five-day workshop immediately prior to each data collection phase. During training, trainees had multiple opportunities to practice with each instrument of data collection. Team members who had participated in instrument development assisted with supervision of the training process.

Data collectors were deployed in teams of three enumerators, with each team responsible for collecting all data required from a given school in two days (2009 baseline and 2010 follow-up) or during a single school day (2011 follow-up, without student-level data collections). Supervisors had primary responsibility for teams' adherence to sampling instructions and for the proper paper-based organization and logging of completed instrument forms. They also conducted daily observations in study sites and spot-check reviews of completed forms to ensure a degree of quality control.

The 2009 baseline data collection was carried out between April 20 and May 10, 2009. The 2010 follow-up data collection on surveys and classroom observations was carried out between April 19 and May 5, 2010. The 2011 follow-up data collection mobilized 20 enumerators and 10 supervisors during the period of February 28 to March 19, 2011.

2. Data collection instruments

Table 3 summarizes the survey and classroom observation instruments employed with schools and teachers over the years of the study and the coverage of instruments achieved during each data collection.

Table 3. Types of data collection instruments used, by year, with numbers of instruments completed or partially completed

Type of Instrument	2009 Baseline	2010 Follow-Up	2011 Follow-Up
Principal survey	*Version A*	*Version B*	*Revised Version B*
RLL - Bamanankan	18	20	25
Comparison - Bamanankan	20	20	24
RLL - Other languages	11	20	26
Comparison - Other languages	15	20	26
Teacher survey	*Version A*	*Version B*	*Revised Version B*
RLL - Bamanankan - G1	15	19	21
Comparison - Bamanankan - G1	16	19	24
RLL - Other languages - G1	9	20	25
Comparison - Other languages - G1	9	20	23
RLL - Bamanankan - G2	11	16	24
Comparison - Bamanankan - G2	14	19	23
RLL - Other languages - G2	7	15	22
Comparison - Other languages - G2	10	19	19
Teacher national language reading assessment	—	—	Yes
RLL - Bamanankan - G1	—	—	21 (+1)*
Comparison - Bamanankan - G1	—	—	24 (+1)*
RLL - Other languages - G1	—	—	25 (+1)*
Comparison - Other languages - G1	—	—	19 (+3)*
RLL - Bamanankan - G2	—	—	23 (+1)*

Type of Instrument	2009 Baseline	2010 Follow-Up	2011 Follow-Up
Comparison - Bamanankan - G2	—	—	23 (+1)*
RLL - Other languages - G2	—	—	21 (+1)*
Comparison - Other languages - G2	—	—	19 (+3)*
Classroom observation	*Instrument A*	*Instruments B1 and B2*	*Instrument A (G2) Instruments B1 and C Instrument B2 (G1)*
RLL - Bamanankan - G1	14	18	21
Comparison - Bamanankan - G1	17	19	24
RLL - Other languages - G1	10	21	26
Comparison - Other languages - G1	12	20	24
RLL - Bamanankan - G2	12	16	24
Comparison - Bamanankan - G2	14	19	24
RLL - Other languages - G2	9	14	25
Comparison - Other languages - G2	12	18	25

* Numbers in parentheses represent teachers responsible for both Grades 1 and 2 (multigrade).

During the 2009 baseline year, some data collection errors led to unexpectedly low numbers of School Principal surveys (64 total, or 63% of expected surveys), Teacher surveys (91, or 47% of expected), and Classroom observations (100, or 49.5% of expected) recuperated. In addition, only 53 classrooms total in 2009 have both teacher surveys and classroom observations among the data collected, seriously reducing the power of analyses to examine the relationships between teachers' background and characteristics, and their teaching practices in the baseline year, or between baseline and subsequent years. Thus in the analyses that follow, the 2010 and 2011 follow-up collections are the principal sources for our analysis on teacher and principal surveys and classroom observation protocols. Baseline classroom observation and survey material are used to provide illustrative though not statistically viable information for our purposes.

The following paragraphs describe each type of instrument in turn, with discussion of revisions across the years. The 2011 version of all instruments is provided in Attachment 3.

School Principal Survey/Interview Protocol. An initial version of this instrument was adapted from the Snapshot of School Management Effectiveness (SSME)[3] and applied at baseline in May/June 2009, to collect basic information on the school environment and resources and also the school principal's background characteristics, practices, and points of view. The instrument

[3] A school survey developed by RTI with EdData 2 (USAID) funding. See www.eddataglobal.com for more information.

adaptation and refinement process, including piloting, was led by the evaluation study team together with a local education research specialist. It also involved researchers selected from among those who had previously participated in Early Grade Reading Assessment (EGRA) data collections.

A revised version, incorporating RLL-specific items was produced and applied for the 2010 follow-up, in April 2010. The 2010 version, with some small modifications was again applied in March 2011.

Teacher Survey/Interview Protocol. As with the school principal survey, an initial version of this instrument, adapted for the Malian context from the SSME, was applied at baseline in May/June 2009. The survey gathered basic information on teachers' background characteristics, reported practices, available resources in the classroom, and points of view on teaching and learning.

A revised version, incorporating items specific to the RLL program (such as the delivery of RLL materials, training, and follow-up visits to RLL schools, or the equivalent in Comparison schools), was produced and applied during the 2010 follow-up, in April 2010. This 2010 version, with further modest modifications in the formulation of some questions, was again applied in March 2011.

Teacher Reading Assessment in National Languages. Paper-and-pencil assessments of teachers' own reading skills (in the national language in which they taught) were developed and piloted by the study team and linguists in December 2010 and applied in March 2011 for the 2011 follow-up. These instruments assessed teachers' skills in phonemic awareness through a phoneme segmentation task, reading comprehension via comprehension questions on a short passage, grammar and vocabulary via a MAZE-style (fill-in-the-blank) passage, and writing through a dictation exercise.

Classroom Observation Protocols. Classroom observation protocols were used in all three years of the study, with some variations by study year and grade level, as shown in Table 4.

Table 4. Summary of classroom observation protocols

INSTRUMENT	2009 Baseline	2010 Follow-up	2011 Follow-up
A. "Flash" timed observation across five instructional dimensions	Thirty-six elements tracked across 15 three-minute intervals, conducted with both Grade 1 and Grade 2, (pre)RLL and Comparison classrooms	—	Slight update of 2009 instrument, increased to 16 three-minute intervals, conducted with Grade 2 RLL and Comparison classrooms only
B1. Checklist of general teaching and learning practices and classroom	—	Conducted in both Grade 1 and Grade 2, RLL (19 points) and Comparison (18 points) classrooms	Conducted in both Grade 1 and Grade 2, RLL and Comparison classrooms (18 points)

INSTRUMENT	2009 Baseline	2010 Follow-up	2011 Follow-up
B2. Checklist of fidelity to RLL lesson-specific practices	—	Conducted with both Grade 1 and Grade 2, RLL (25 points) and Comparison (20 points) classrooms	Conducted in Grade 1 RLL (30 points) and Comparison (28 points) classrooms only
C. Observation register on classroom physical organization and materials available, by language	—	—	Conducted in both Grade 1 and Grade 2, RLL and Comparison classrooms (10 items)

The "Flash" observation (instrument A) was employed with a subset of Grade 1 and Grade 2 classrooms in RLL and Comparison schools at baseline in 2009, and again with the full Grade 2 sample during the 2011 follow-up data collection. This instrument, used during the observation of a complete reading lesson, involved timed "snapshot" paper-and-pencil recording at three-minute intervals of a series of behaviors across five dimensions (teacher focus, teacher action, student action, lesson content, and instructional material support). The 2009 "Flash" instrument was accompanied by pre- and post-observation narrative notes against a series of questions.

Instruments B1 and B2, structured in a simpler yes-no checklist format, were used during the observation of a complete reading lesson. Checklist B1 covered observation of a variety of classroom features and good practices for student and teacher behaviors, for both grade levels at 2010 and 2011 follow-up collections.

Checklist B2 provides more specific information on fidelity (or similarity in the case of Comparison schools) with regard to the RLL-prescribed lesson sequence for first-year learners. In the 2010 study year, the instrument was used in both Grades 1 and 2, as both grades in that year applied the Grade 1 lesson method. In the 2011 study year, the full instrument was used with Grade 1 classrooms only. Fidelity in this case refers to the degree to which teachers in RLL program schools are following the intervention methodology, as well as the degree to which teachers in Comparison schools may be using similar methodologies. This type of instrument offers a means of confirming whether designated "treatment" and "comparison" groups are indeed significantly different in terms of their exposure to and practice of the treatment of interest, since variation in a program's impact can be due to the degree of fidelity in implementation. The initial draft of this instrument was developed by the evaluation team's reading specialist, who observed both RLL and Comparison school classrooms and consulted with IEP and local education researchers so that the instrument would appropriately capture key features of the instructional program. The instrument was then reviewed, piloted, and finalized by researchers selected from the original EGRA researcher group.

Finally, Instrument C was developed and used in both Grades 1 and 2 at 2011 follow-up to record information about the physical layout and organization of the classroom and the availability of books and other reading instruction materials in the classroom by language.

Although the instruments differed from one data collection year to the next, and between RLL and Comparison groups, a core of common elements offers the opportunity to explore whether and in what respects classroom practice was different across types of schools or changed from one year to the next.

F. Summary of RLL effects on student learning by May 2010

To place the examination of school, teacher, and classroom practices in RLL and Comparison schools in context, it is worthwhile to review the RLL program's effects on student learning found at the end of the first year of implementation. A more complete presentation of these findings is available in the 2010 follow-up study report (Friedman, Gérard, and Ralaingita, 2010), and in the May 2012 Quality Education in Developing Countries (QEDC) Conference presentation by Spratt and Ralaingita; see also Ralaingita and Wetterberg (2011).

Table 5 presents summary statistics of students' EGRA subtask outcomes at the 2010 follow-up. The results display higher scores in RLL treatment schools on every subtask and across both grades, with the exception of two "peri-reading" tasks: Orientation to Print in Grade 2, and Listening Comprehension (both grades).

Table 5. Means (and standard deviations) on EGRA subtasks at 2010 follow-up, by grade level and treatment group, with RLL treatment effect

EGRA Subtask	Grade 1			Grade 2		
	Comparison Schools	RLL Schools	Treatment Effect	Comparison Schools	RLL Schools	Treatment Effect
Orientation to Print	1.674 (1.323)	1.951 (1.281)	.23 *** (.09)	2.431 (1.060)	2.487 (1.006)	.06 (.08)
Phonemic Awareness (Initial Sound Identification)	1.822 (3.187)	2.593 (3.482)	.26 *** (.09)	4.182 (4.085)	4.866 (4.032)	.21 * (.12)
Listening Comprehension	4.726 (1.9)	4.96 (1.851)	.11 (.09)	5.367 (1.678)	5.438 (1.580)	.03 (.07)
Correct Letters per Minute	4.758 (7.536)	9.599 (11.096)	.65 *** (.13)	12.786 (13.507)	18.368 (16.610)	.30 * (.17)
Correct Familiar Words per Minute	0.199 (1.123)	1.468 (3.104)	1.25 *** (.21)	2.183 (5.543)	4.737 (7.174)	.33 *** (.14)
Correct Invented Words per Minute	.104 (.687)	.573 (1.930)	.78 *** (.14)	1.400 (4.147)	2.672 (5.268)	.21 * (.12)
Oral Reading Fluency (connected text)	.114 (.854)	.773 (3.966)	.92 *** (.25)	1.835 (6.674)	3.175 (7.426)	.12 (.09)

EGRA Subtask	Grade 1			Grade 2		
	Comparison Schools	RLL Schools	Treatment Effect	Comparison Schools	RLL Schools	Treatment Effect
Overall (First principal component across seven subtasks)			.81 *** (.15)			.27 * (.14)

* p < .05; ** p < .01; *** p < .001.
Source: Adapted from Friedman, Gerard, and Ralaingita, 2010.

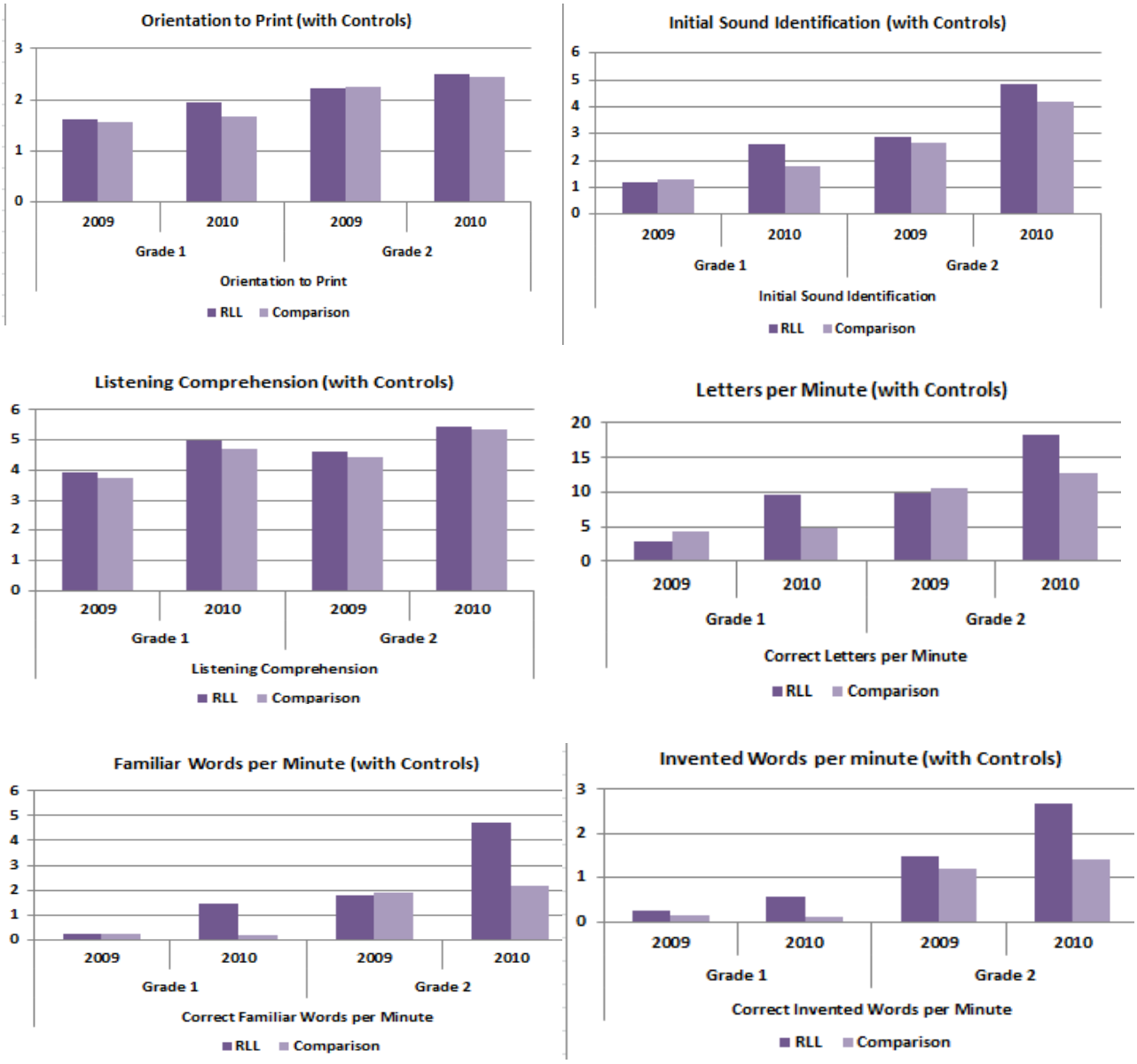
The "Treatment effect," obtained by standardizing each RLL-group score against a mean of 0 and a standard deviation of 1 as the corresponding Comparison group score, represents the size of the performance increase or difference that would be expected by virtue of participating in the RLL program, versus not participating in it, with the standard deviation as the unit.[4] The bottom row of able 5 offers an indicator representing overall performance across all seven subtests (reading comprehension being excluded due to extremely low scores and skewed distribution). This overall indicator was created using a principal components analysis of the seven subtasks. Correct words per minute was the most heavily weighted component both at baseline and in the follow-up.

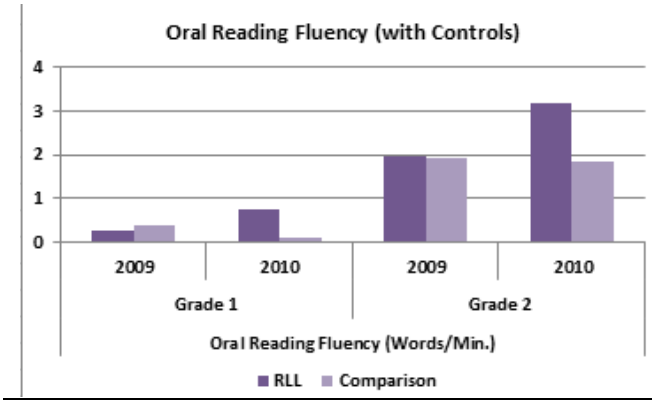
In Grade 1, the RLL treatment effects are large and significant across subtasks. The estimate of the RLL treatment effect overall is 0.81 standard deviations. In Grade 2, the RLL treatment effects are more modest, with an overall RLL treatment effect of 0.27 standard deviations. An improvement of one fifth of a standard deviation is often used as a benchmark of success in an education intervention, so this is still an important magnitude.

Students' mean scores at 2009 baseline and at 2010 follow-up by treatment group, grade level, and EGRA subtask are also presented visually in Figure 1.

[4] All estimates of the RLL treatment effect are the result of an OLS (Ordinary Least Squares) regression with the normalized outcome as the dependent variable and treatment status as the independent variable of interest. Each regression includes controls for pupil, teacher, and school characteristics—in particular, age and sex of pupils, class size at baseline, baseline mean test scores within the relevant grade in that school, language group fixed effects, age and experience of teachers, the month of the exam, and whether the exam was administered in the morning or afternoon. In all estimates, standard errors are clustered at the level of the school, and each observation is weighted by the inverse of the number of students tested in that school, so that each school gets equal weight (Friedman, Gerard & Ralaingita, 2010).

Figure 1. Students' 2009 baseline and 2010 follow-up reading performance, by treatment group, grade, and EGRA subtask





In summary, student performance on EGRA reading tasks from the 2009 baseline to the 2010 follow-up round after one year of the RLL intervention, showed promising gains overall relative to Comparison school performance, particularly at the Grade 1 level. This overall finding would suggest that the RLL program is making a contribution to the development of children's reading in Mali.

The results are mixed, however, when examined separately within study language groups (not shown; see Spratt and Ralaingita, 2012). With the exception of Orientation to Print, RLL's contribution was almost entirely located within the Bamanankan language group. Given the heterogeneity of the "Other" language group (which contains schools operating in three separate languages), further study will be needed to uncover the sources of the differences found in effectiveness of RLL for specific language groups.

Identifying the ways in which RLL schools came to differ from Comparison schools in their school and teacher practices over time, is also important in unpackaging the RLL treatment effects found in student learning.

III. Results: Exploration of school, teacher, and classroom practices in RLL and Comparison schools

This section of the report examines similarities and differences between RLL treatment and Comparison schools with regard to characteristics of schools, teachers, classrooms, and teaching practices. We begin with a look at these characteristics and practices as observed in 2011, after two years of RLL implementation (Subsection A, below). The following subsection (B) will examine their evolution since baseline. The third subsection (C) explores variability found among RLL classrooms in 2011 on key inputs and practices.

A. RLL and Comparison schools' characteristics in 2011

We examined data gathered on school, principal, teacher, and classroom characteristics at the 2011 follow-up year by RLL treatment and Comparison groups, and tested for association with group membership. We used Kendall's tau b for this test, given the ordinal nature and non-parametric distribution of most of these variables. All sample sizes and statistics are adjusted using Finite Population Correction (FPC) to approximate the actual distribution of curriculum schools by language group in the seven districts that participated in the study.

1. School-level characteristics

A range of variables reflecting general school characteristics, pedagogical leadership, and the school's preparation, experience, and resources to support reading instruction using the curriculum program in national languages were available from the school principal survey data. Table 6 presents sample sizes, means, and standard deviations on these variables in 2011 by treatment group. Results of the test of association with treatment group are also shown.

We see in Table 6 that RLL treatment and Comparison schools are statistically similar on most general school characteristics examined, with the exception of availability of drinking water. Among RLL schools, only 56% of principals reported that their school had access to drinking water, against 78% of Comparison schools. On measures of electrification (19% and 21% responding yes for RLL and Comparison schools, respectively), urban location (30% of RLL schools and 23% of Comparison schools within 10 km of an urban center), and school size (means of 418 and 354 students, respectively, for RLL and Comparison schools), RLL and Comparison schools were similar. RLL schools were somewhat more likely than Comparison schools to have more boys than girls, with mean gender parity of student population at 0.94 and 0.99, respectively.

School principals of RLL and Comparison schools also responded similarly on measures of pedagogical leadership. In both types of schools, principals had on average 7.3 years of experience as principals, reported unanimously that they or another staffer reviewed lesson plans and observed classrooms, and had themselves observed on average two classrooms in the previous week. Over 90% of principals in both groups also reported having organized an advisory meeting with teachers (*Conseil des maîtres*). While slightly more RLL principals (41%) reported having been trained as principals than did Comparison school principals (33%), this difference was not significant.

Table 6. School-level characteristics across RLL and Comparison schools at 2011 follow-up

Variable	Treatment Group	Weighted Sample n	Weighted Sample Mean	Standard Deviation	Kendall's Tau B and *p* Value	
General School Characteristics						
B2_06 The school has drinking water	*RLL*	69	.56	.500	-.259	**
	Comparison	67	.78	.417	.004	
B2_07 The school has electricity	*RLL*	69	.19	.398	-.004	n.s.
	Comparison	67	.21	.410	.966	
B2_11 Distance to closest city (in km)	*RLL*	69	26.30	23.978	-.065	n.s.
	Comparison	67	27.44	22.164	.390	
B2_11_urb School is <10 km from urban center	*RLL*	69	.30	.461	.087	n.s.
	Comparison	67	.23	.423	.328	
B1_05t Student enrollment - Total	*RLL*	69	418.43	210.702	.131	n.s.
	Comparison	67	353.96	168.559	.073	
B1_05gpi Gender parity in student enrollment (girls/boys)	*RLL*	69	.94	.233	-.151	*
	Comparison	67	.99	.201	.039	
Pedagogical Leadership at the School						
A1_06 Principal's years of being a School Principal	*RLL*	69	7.27	5.772	.030	n.s.
	Comparison	67	7.24	5.745	.691	
A1_11 School Principal received training to be a Principal	*RLL*	69	.41	.495	.076	n.s.
	Comparison	67	.33	.474	.397	
A2_02 School Principal or other reviews teachers' lesson plans	*RLL*	69	1.00	.000b		
	Comparison	67	1.00	.000b		
A2_03a School Principal or other observes classrooms	*RLL*	69	1.00	.000b		
	Comparison	67	1.00	.000b		
A2_03b N of classes observed by School Principal in previous week	*RLL*	69	2.08	1.524	-.016	n.s.
	Comparison	67	2.15	1.578	.845	
A2_04 School Principal organized Conseil des maîtres in past 3 months	*RLL*	69	.91	.290	-.056	n.s.
	Comparison	67	.93	.258	.528	
School's Curriculum and RLL Preparation, Resources, and Experience						
A1_12a School Principal trained in national languages teaching	*RLL*	66	.80	.405	.055	n.s.
	Comparison	66	.75	.438	.546	

Variable	Treatment Group	Weighted Sample n	Weighted Sample Mean	Standard Deviation	Kendall's Tau B and *p* Value	
A1_12c School Principal participated in an IEP training	*RLL*	69	.79	.408	.730	***
	Comparison	67	.05	.225	.000	
A2_01 School Principal trained teachers in applying the Curriculum school program	*RLL*	69	.84	.366	.425	***
	Comparison	67	.44	.500	.000	
B1_03 Years since school became a curriculum school	*RLL*	69	6.73	2.625	.064	n.s.
	Comparison	67	6.45	3.240	.418	
B2_05 School received books written in national language	*RLL*	69	.92	.271	.119	n.s.
	Comparison	67	.81	.398	.183	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = not significant.

[a] Sample sizes and statistics are adjusted using Finite Population Correction (FPC) to approximate school population distribution of language groups.

[b] *t* cannot be computed because the standard deviations of both groups are 0.

Turning to variables reflecting the school's overall level of experience in and support for national-language reading instruction through the curriculum program, we see from Table 6 that schools are similar in the proportion whose principals had received training in national languages instruction (80% and 75% of RLL and Comparison school principals, respectively) and on the average number of years that the schools have followed the Curriculum program (6.7 and 6.5 years, respectively). A somewhat higher proportion of RLL schools (92%) than Comparison schools (81%) reported having received books written in national language, although this difference was not significant. Where RLL schools show a strong departure from Comparison schools is in the proportion of principals who had received RLL training (79% of RLL principals versus only 5% of Comparison principals, a finding to be expected by year two of RLL implementation), and also in the proportion of those who had engaged in training teachers to apply the Curriculum program methods (84% of RLL principals, versus only 44% of Comparison school principals). It should be noted that training in the Curriculum program is a Ministry-wide initiative intended to be applied in all Curriculum schools, whether they were participating in the RLL program or not.

2. Teachers' general pedagogical background and support available

Using the 2011 teacher survey and classroom observation data, we also explored teachers' pedagogical background and other characteristics and the support they received for teaching in general, across RLL treatment and Comparison groups and by grade level. Table 7 presents these results.

We note that on general background characteristics such as teaching certification credentials and experience, teachers in RLL and Comparison schools are similar in both Grade 1 and Grade 2. Over 80% of Grade 1 and Grade 2 teachers in both groups hold the basic education diploma (DEF), and over 30% have a higher degree, with somewhat higher proportions on both of these

variables in Grade 2. In 2011, 40% and 45% of Grade 1 teachers were women in RLL and Comparison schools, respectively, while in Grade 2 classrooms, 56% and 65% of teachers were women; these differences in proportions by treatment group are not significant in either grade.

Table 7. teachers' general pedagogical background characteristics and support available across RLL and Comparison schools at 2011 follow-up, by grade level

Variable	Treatment Group	Grade 1 Classrooms				Grade 2 Classrooms			
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	
Teachers' General Pedagogical Background									
C2_01 Teacher possesses DEF	*RLL*	64	.80	-.014	n.s.	61	.85	-.085	n.s.
	Comparison	62	.82	.877		57	.88	.378	
C2_02 Teachers possesses higher degree (DEF+4 or Bac +4)	*RLL*	64	.31	-.048	n.s.	61	.37	-.115	n.s.
	Comparison	62	.35	.604		57	.48	.233	
C1_04 Years of teaching experience	*RLL*	64	10.00	.116	n.s.	61	6.92	.059	n.s.
	Comparison	62	7.51	.136		57	6.42	.470	
C1_01 Teacher is female	*RLL*	64	.40	.017	n.s.	61	.56	.110	n.s.
	Comparison	62	.45	.857		57	.65	.255	
Pedagogical Leadership Support Provided to Teachers									
C6_01 Director (or deputy) reviews lesson plan	*RLL*	64	.90	-.021	n.s.	61	.96	.049	n.s.
	Comparison	62	.90	.819		57	.93	.607	
C6_03b Lesson plans reviewed every week or more	*RLL*	64	.98	-.129	n.s.	61	.86	-.137	n.s.
	Comparison	62	1.00	.163		57	.94	.154	
C6_04 Director or Assistant Director observes classrooms	*RLL*	64	.87	.119	n.s.	61	.89	-.011	n.s.
	Comparison	62	.77	.199		57	.88	.905	
C6_06a Class observed every 2-3 months or less	*RLL*	64	.12	.021	n.s.	61	.04	-.272	**
	Comparison	62	.10	.819		57	.20	.005	
C6_06b Class observed every week or more	*RLL*	64	.34	-.083	n.s.	61	.41	.085	n.s.
	Comparison	62	.44	.368		57	.31	.378	
C6_07a Teacher received one or more pedagogical visits in past week	*RLL*	62	.38	.109	n.s.	61	.41	.167	n.s.
	Comparison	61	.25	.246		57	.25	.082	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = not significant.

[a] Sample sizes and statistics are adjusted using Finite Population Correction (FPC) to approximate school population distribution of language groups.

[b] *t* cannot be computed because the standard deviations of both groups are 0.

General pedagogical support provided to teachers at the school in the form of lesson plan reviews and classroom observations, as reported by teachers themselves, were also similar across RLL and Comparison classrooms. Nearly all teachers canvassed in both types of schools reported that their lesson plan was reviewed at least weekly, and that their classroom was observed by the school Director or Assistant Director, although the frequency of classroom observation showed considerable range. Twenty percent of Grade 2 teachers in Comparison schools reported relatively infrequent observations of their classrooms (no more than once in two months), while only 4% of Grade 2 RLL teachers reported such infrequent classroom observations. In this set, this was the only measure on which RLL schools differed from Comparison schools.

3. Training, material inputs, and teacher characteristics related to teaching in national languages

As noted in the introduction, reading instruction in national languages has been a recognized official approach in Malian public schools, institutionalized as the Curriculum program, with accompanying teacher training and educational materials. The RLL approach was designed to provide effective enhancements to this program, but not to replace it.

Yet the data in Table 8 suggest that quite a few teachers and classrooms in Comparison schools had not received the basic inputs. While 86% of RLL Grade 1 teachers reported having received training in national languages, only 62% of Comparison Grade 1 teachers had received the training. The situation is similar in Grade 2 (88% of RLL teachers; versus 71% of Comparison teachers), and for both grade levels these differences are significant.

Table 8 also shows that RLL teachers were much more likely to have received RLL training from IEP than comparison-school teachers, a finding that confirms that RLL training was carried out as intended for the most part. Note, however, that even among RLL schools, 27% of Grade 1 teachers and 22% of Grade 2 teachers reported that they had not received RLL training by year two of the study.

Table 8. Training and material inputs in support of reading instruction in national language across RLL and Comparison schools at 2011 follow-up, by grade level

Variable	Treatment Group	Grade 1 Classrooms				Grade 2 Classrooms			
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	
Curriculum and RLL Program Training									
C2_03a T has received training in national languages	*RLL*	64	.86	.239	**	61	.88	.212	*
	Comparison	62	.62	.010		57	.71	.028	
C2_05 Teacher has received training on RLL with IEP	*RLL*	64	.73	.682	***	61	.78	.755	***
	Comparison	62	.06	.000		56	.03	.000	
C6_08 T has access to	*RLL*	64	.94	-.032	n.s.	61	1.00	.204	*

Variable	Treatment Group	Grade 1 Classrooms				Grade 2 Classrooms			
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	
other support for national language instruction	*Comparison*	62	.94	.732		57	.92	.034	
Curriculum and RLL Program Material Inputs Available									
B3_04a Teacher received books from Ministry for teaching in national language	*RLL*	64	.52	-.018	n.s.	61	.58	.017	n.s.
	Comparison	62	.53	.847		57	.56	.856	
B3_07a Fewer than 25% of students in class have national language schoolbook	*RLL*	64	.74	-.173	n.s.	61	.44	-.336	***
	Comparison	62	.89	.061		55	.77	.000	
B3_07c Over 75% of students in class have national language schoolbook	*RLL*	64	.18	.184	*	33	.07	.317	**
	Comparison	62	.06	.047		49	.00	.001	
OCF_05lc Textbooks are available in language of instruction	*RLL*	63	.54	.601	***	66	.58	.584	***
	Comparison	65	.02	.000		66	.05	.000	
OCF_06lc Other books are available in language of instruction	*RLL*	63	.11	.181	*	66	.05	0.157	n.s.
	Comparison	65	.02	.050		66	.00	.083	
OCF_08lc Wall displays are available in language of instruction	*RLL*	63	.46	.199	*	66	.61	.403	***
	Comparison	65	.29	.031		66	.25	.000	
OCF_09lc Teacher-made materials are available in language of instruction	*RLL*	63	.46	.196	*	66	.54	.255	**
	Comparison	65	.33	.033		66	.32	.005	
OCF_10lc Student-made materials are available in language of instruction	*RLL*	63	.04	.132	n.s.	66	.02	-.001	n.s.
	Comparison	65	.00	.152		66	0.02	.991	
OCFscale_loi Proportion of 5 types of reading materials available in LOI	*RLL*	63	.32	.408	***	66	.36	.487	***
	Comparison	65	.13	.000		66	.13	.000	

Variable	Treatment Group	Grade 1 Classrooms			Grade 2 Classrooms		
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value
OCFscale_fr Proportion of 5 types of reading materials available in French	*RLL*	63	.03	-.171 n.s.	66	.05	-.169 n.s.
	Comparison	65	.06	.059	66	.10	.054
RLLbooks_LOI RLL books are available in LOI	*RLL*	0			66	.76	.741 ***
	Comparison	0			66	.04	.000

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = not significant.

[a] Sample sizes and statistics are adjusted using Finite Population Correction (FPC) to approximate school population distribution of language groups.

[b] *t* cannot be computed because the standard deviations of both groups are 0.

While similar proportions of Grade 1 and Grade 2 teachers in RLL and Comparison schools reported receiving materials from the Ministry for teaching in national languages, these proportions were strikingly low (nowhere more than 58%) for a distribution intended to be extended to all Curriculum schools.

On most other measures of material inputs in national languages, including the direct observation series (OCF_05 through OCF10), RLL classrooms were found to be better equipped than Comparison classrooms (see Figure 2 and Figure 3). According to teachers, RLL students were more likely than Comparison students to have the national language schoolbook, although the proportion reached 75% of students or more in only 18% of Grade 1 RLL classrooms and only 7% of Grade 2 RLL classrooms. Over 50% of RLL Grade 1 and Grade 2 classrooms were observed to have some national language textbooks, versus only 2% of Grade 1 and 5% of Grade 2 Comparison classrooms. Wall displays and teacher-made materials in the language of instruction were also significantly more available in RLL than Comparison classrooms, in both grade levels.

Figure 2. National language materials available in the classroom, RLL and Comparison schools, Grade 1, 2011

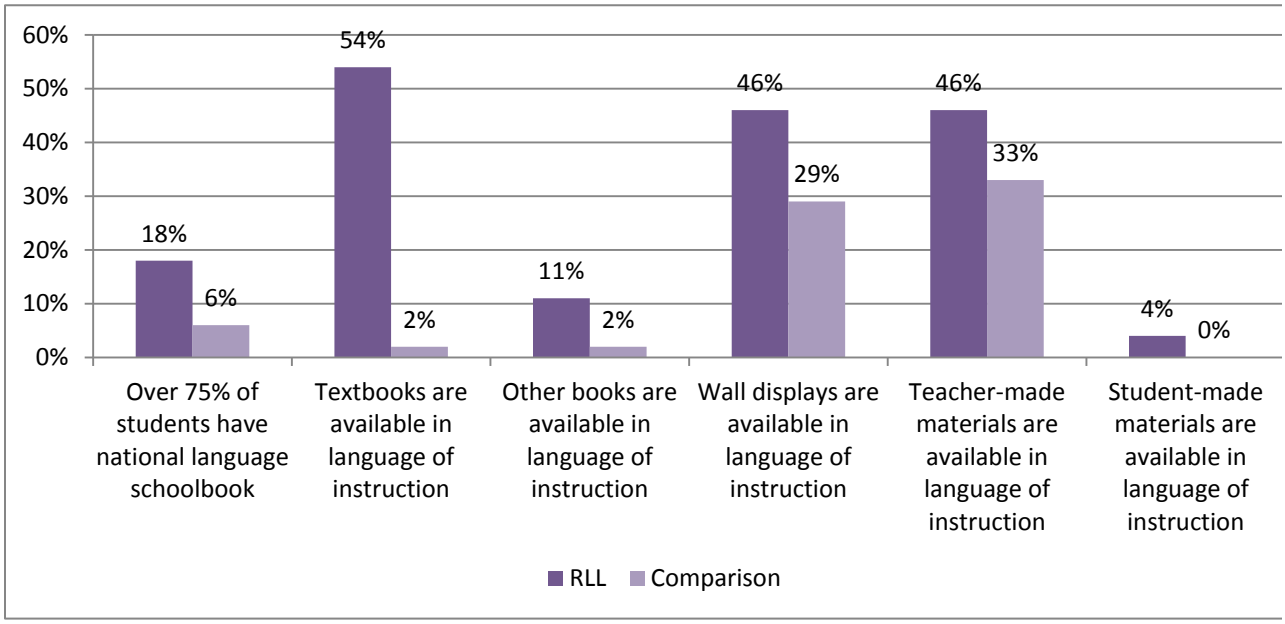
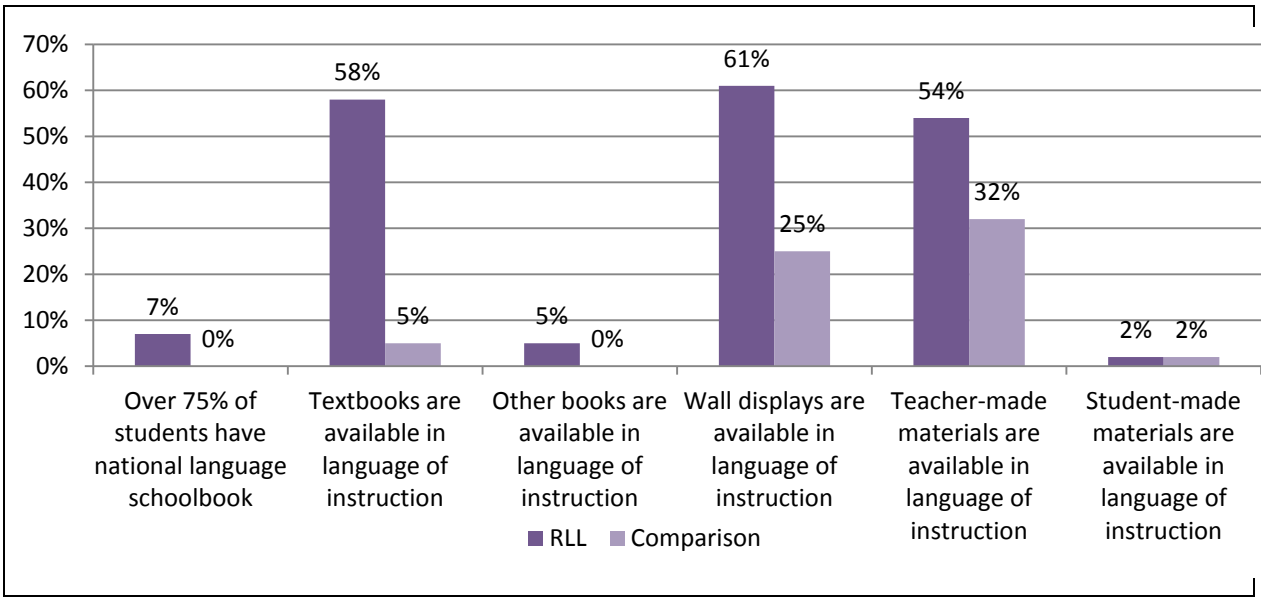


Figure 3. National language materials available in the classroom, RLL and Comparison schools, Grade 2, 2011



We also examined indicators related to the teacher's own familiarity with the language of instruction, including a brief direct assessment of the teacher's skills on phonemic awareness, reading comprehension, a MAZE task, and writing dictation (see Table 9).

Table 9. Teacher's facility with language of instruction

Variable	Treatment Group	Grade 1 Classrooms			Grade 2 Classrooms		
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value
Teacher's Ease of Teaching in National Language							
C1_07a Language of instruction is Teacher's maternal language	*RLL*	62	.77	.186 *	58	.92	.285 **
	Comparison	62	.60	.046	53	.69	.004
C1_05 Years of teaching experience in national language	*RLL*	64	4.93	.103 n.s.	61	4.08	.037 n.s.
	Comparison	62	4.09	.192	57	3.85	.659
PA_tot_pct Teacher's score on phonemic awareness task - % correct	*RLL*	64	.82	.114 n.s.	57	.86	.120 n.s.
	Comparison	62	.78	.168	56	.79	.172
Comp_tot_pct Teacher's score on reading comprehension in national language - % correct	*RLL*	64	.66	-.082 n.s.	57	.70	.079 n.s.
	Comparison	62	.71	.313	56	.65	.360
MAZE_tot_pct Teacher's score on MAZE task in national language - % correct	*RLL*	63	.85	.012 n.s.	57	.92	.267 **
	Comparison	62	.83	.885	56	.79	.003
Dict_tot_pct Teacher's score on writing dictation in national language - % correct	*RLL*	64	.75	-.089 n.s.	57	.77	.074 n.s.
	Comparison	62	.77	.249	56	.73	.375
Tscore_NL Teacher's combined national language score (average of 4 scores)	*RLL*	64	.77	.018 n.s.	57	.81	.163 *
	Comparison	62	.77	.815	56	.74	.044

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = not significant.

[a] Sample sizes and statistics are adjusted using Finite Population Correction (FPC) to approximate school population distribution of language groups.

[b] *t* cannot be computed because the standard deviations of both groups are 0.

As shown in Table 9, teachers in RLL classrooms were more likely to be teaching in their own maternal language than those in Comparison classrooms. But years of teaching in national language were not significantly different between RLL and Comparison teachers (for Grade 1, 4.9 years for RLL versus 4.1 years for Comparison teachers; for Grade 2, 4.1 years versus 3. 9 years), and for the most part, RLL teachers and Comparison teachers displayed similar phonemic

awareness, reading, and writing skills in the language of instruction, although Grade 2 RLL teachers displayed significantly higher performance on the MAZE task and overall across the four national language assessment tasks than their Comparison counterparts.

4. Teachers' classroom practice and fidelity to RLL practices

The RLL approach, described briefly above and in IEP documents (IEP 2008a; IEP 2008b), incorporates structured teacher training, accompanying readers and other educational materials following the same structure, and frequent pedagogical support visits to schools both to reinforce general good instructional practices and to help teachers develop specific practices following RLL's stepped approach to reading instruction. The evaluation study's teacher interviews and classroom observation instruments endeavored to capture the degree to which teachers and their students were actually engaging in these practices.

Turning first to generally agreed good classroom practices for early grade learning, the results in Table 10 reflect that for the most part, on the basis of our measures, RLL and Comparison classrooms do not display many significant differences. RLL teachers were more likely to refrain from speaking French (80% of both Grade 1 and Grade 2 RLL teachers reported seldom or never using French in the classroom) than their Comparison school counterparts (62% and 68% for Grades 1 and 2, respectively), but the difference is significant only for Grade 1. On the basis of direct classroom observations (the "OCP" variables below), RLL teachers in both Grade levels were more likely than Comparison teachers to circulate among the students in the course of the reading lesson, even though physical space of Grade 2 classrooms was judged by observers to be less well-organized for learning in RLL than in Comparison school classrooms. Over the range of 14 general good classroom practices presented in Table 10, the proportion of observed practices overall was significantly higher in RLL than Comparison classrooms for Grade 1 only.

Table 10. Teacher's fidelity to general good classroom practices supported by RLL, in RLL and Comparison classrooms at 2011 follow-up

Variable	Treatment Group	Grade 1 Classrooms			Grade 2 Classrooms		
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value
Fidelity to General Good Classroom Practices Supported by RLL							
C3_03a Teacher seldom or never uses French in class	*RLL*	64	.804	.198 *	61	.801	.133 n.s.
	Comparison	62	.623	.032	57	.684	.168
C3_03b Teacher often or always uses French in class	*RLL*	62	.139	-.151 n.s.	59	.101	-.131 n.s.
	Comparison	62	.243	.105	55	.195	.182
OCP3_01 Lesson is participatory	*RLL*	63	.957	-.162 n.s.	66	.914	-.154 n.s.
	Comparison	65	1.000	.078	66	.965	.089
OCP3_06 Lesson is aligned with program's 'lesson of the day'	*RLL*	63	.920	.078 n.s.	66	.879	-.162 n.s.
	Comparison	65	.880	.398	66	.947	.074
OCP3_08 Lesson prepared before class	*RLL*	63	.957	.119 n.s.	66	.896	-.077 n.s.
	Comparison	65	.886	.198	66	.911	.398

Variable	Treatment Group	Grade 1 Classrooms			Grade 2 Classrooms		
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value
OCP3_09 T pauses to ensure that students understand	*RLL*	63	.919	.165 n.s.	66	.932	.032 n.s.
	Comparison	65	.780	.074	65	.873	.723
OCP3_10 T accepts the responses of students	*RLL*	63	.938	-.127 n.s.	66	.914	-.083 n.s.
	Comparison	65	.982	.166	66	.929	.360
OCP3_11 T summarizes students' responses	*RLL*	63	.863	.106 n.s.	66	.825	.004 n.s.
	Comparison	65	.762	.248	66	.786	.965
OCP3_12 T is attentive to errors and corrects them in line with instructions	*RLL*	63	.976	-.055 n.s.	66	.932	.003 n.s.
	Comparison	65	.982	.551	66	.893	.976
OCP3_13 T circulates among tables to make sure all students are reading	*RLL*	63	.697	.298 **	66	.785	.228 *
	Comparison	65	.404	.001	66	.539	.012
OCP3_14 T gives independent work to individual learners and groups	*RLL*	63	.735	-.107 n.s.	66	.717	-.168 n.s.
	Comparison	65	.821	.243	66	.826	.064
OCP3_15 Lesson is written on blackboard before the start of class	*RLL*	63	.750	.071 n.s.	66	.771	-.015 n.s.
	Comparison	65	.725	.442	66	.789	.872
OCP3_16 There is a literate environment in the classroom	*RLL*	63	.725	.160 n.s.	66	.699	-.044 n.s.
	Comparison	64	.603	.083	65	.735	.629
OCP3_17 The physical space is organized to favor learning	*RLL*	63	.881	-.124 n.s.	66	.806	-.181 *
	Comparison	65	.958	.179	66	.911	.046
OCP3_18 Class routines have been established	*RLL*	63	.976	-.002 n.s.	66	.932	-.091 n.s.
	Comparison	65	.977	.986	66	.947	.313
OCP3_19 Class atmosphere is friendly and relaxed	*RLL*	63	.938	-.127 n.s.	66	.932	-.057 n.s.
	Comparison	65	.982	.166	66	.929	.528
GTP14_pct Proportion of 14 general good teaching behaviors observed	*RLL*	63	.874	.262 **	66	.852	0.054 n.s.
	Comparison	65	.839	.001	66	.856	.512

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = not significant.

[a] Sample sizes and statistics are adjusted using Finite Population Correction (FPC) to approximate school population distribution of language groups.

[b] *t* cannot be computed because the standard deviations of both groups are 0.

On all variables in Table 10 derived from direct classroom observations (OCP variables), in most cases at least 70% of teachers—whether RLL or Comparison—were observed to display the positive practice. Proportions ranged from a minimum of 40% (for Grade 1 Comparison teachers on the practice of circulating among students) to well over 90% on a number of practices. In other words, plenty of RLL as well as Comparison classrooms were displaying many good instructional practices.

We also looked at general measures of student engagement and teachers' use of student-centered activities that are supported by, though not exclusive to, RLL's instructional approach, as obtained through both teacher surveys and classroom observations. Table 11 presents the results from these variables.

Table 11. Degree of general student engagement and student-centered activities supported by RLL, in RLL and Comparison classrooms at 2011 follow-up

Variable	Treatment Group	Grade 1 Classrooms			Grade 2 Classrooms		
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value
Student Engagement and Teacher's Use of Student-Centered Activities in Classroom Practice							
C4_01_G1G2 Class enrollment	*RLL*	63	61.83	.052 n.s.	61	65.20	.115 n.s.
	Comparison	62	58.34	.497	57	56.76	.148
C4_05 Proportion of students present in class on day of visit	*RLL*	62	.83	-.001 n.s.	61	.89	.017 n.s.
	Comparison	62	.82	.993	55	.85	.837
C4_05a Fewer than 80% of students present in class on day of visit	*RLL*	62	.31	-.018 n.s.	61	.29	.050 n.s.
	Comparison	62	.34	.843	55	.23	.605
C4_05b Over 95% of students present in class on day of visit	*RLL*	62	.33	.056 n.s.	61	.45	.074 n.s.
	Comparison	62	.28	.546	55	.40	.446
B3_09a Fewer than 25% of students have chalk & slate on day of visit	*RLL*	64	.06	-.163 n.s.	61	.04	-.205 *
	Comparison	62	.15	.077	57	.13	.033
B3_09b Over 75% of students have chalk & slate on day of visit	*RLL*	64	.85	.191* *	61	.90	.218 *
	Comparison	62	.73	.039	57	.78	.023
OCP3_02 Students are engaged interactively with the teacher	*RLL*	63	.46	-.211* *	66	.878	-0.162 n.s.
	Comparison	65	.50	.022	66	.947	.074
OCP3_03 Students are engaged interactively with other students	*RLL*	63	.18	.131 n.s.	66	.328	-.040 n.s.
	Comparison	65	.13	.154	66	.352	.656
OCP3_04 Students appear motivated to learn	*RLL*	63	.45	-.136 n.s.	65	.894	-.179 *
	Comparison	65	.49	.138	66	.965	.049
OCP3_05 Students are busy	*RLL*	63	.47	-.079 n.s.	66	.879	-.197 *
	Comparison	65	.49	.392	66	.965	.030
SENG_pct Proportion of 3 student engagement behaviors observed	*RLL*	63	.46	-.160 n.s.	66	.885	-.199* *
	Comparison	65	.49	.078	66	.959	.026
c5_05 Teacher focused on a small group (% of 15 obs)	*RLL*	0			66	.014	.124 n.s.
	Comparison	0			66	.009	.165
C5_06 Teacher focused on a single student (% of 15 obs)	*RLL*	0			66	.070	.270 **
	Comparison	0			66	.048	.002
C5_11 Students are reading aloud together (% of 15 obs)	*RLL*	0			66	.139	.453 ***
	Comparison	0			66	.038	.000
C5_12 One student is reading aloud (% of 15 obs)	*RLL*	0			66	.071	-.206 *
	Comparison	0			66	.119	.012
C5_14 Student(s) writing on	*RLL*	0			66	.110	.086 n.s.

Variable	Treatment Group	Grade 1 Classrooms			Grade 2 Classrooms			
		Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value	
blackboard (% 15 obs)	*Comparison*	0			66	.097	.290	
C5_15 Students are writing in their notebooks or slate (% of 15 obs)	*RLL*	0			66	.110	.089	n.s.
	Comparison	0			66	.095	.273	
C5_17 Students are repeating aloud or reciting (% of 15 obs)	*RLL*	0			66	0.137	-0.119	*
	Comparison	0			66	0.184	0.132	
SCA17_all Number of student-centered activities (out of 7) observed in at least 10% of observation moments	*RLL*	0			66	6.110	0.299	***
	Comparison	0			66	4.179	0.000	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = not significant.

[a] Sample sizes and statistics are adjusted using Finite Population Correction (FPC) to approximate school population distribution of language groups.

[b] *t* cannot be computed because the standard deviations of both groups are 0.

With Grade 1 class sizes averaging from 58 to 62 students in Comparison and RLL schools respectively, and Grade 2 class sizes averaging from 57 to 65, classroom attendance was only moderately high, ranging from 82% to 83% in Grade 1 and from 85% to 89% in Grade 2, with RLL classrooms having marginally (though not significantly) higher attendance rates on the day of the visit. In both grade levels, according to teacher reports, children in RLL classrooms were more likely to come to class with chalk and slate than in Comparison classrooms. At the same time, observers rated students in RLL classrooms in both grade levels as displaying slightly (and significantly) lower levels of apparent motivation and busy-ness than their Comparison classroom counterparts.

The observation of general student-centered practices (conducted in 2011 only in Grade 2 classrooms and included in the C5 series in Table 11) suggests that RLL classroom teachers are more likely to employ active group reading aloud and to work with individual students, whereas Comparison classroom teachers favor individualized student oral reading and group repetition and reciting. Overall, RLL classroom teachers were found to use more child-centered activities in general than their Comparison counterparts (SCA17_all).

In Grade 1 classrooms only, our 2011 classroom observers also looked for evidence of whether teachers were making use of specific practices consistent with the RLL program's seven-step process for a given reading lesson. Both RLL and Comparison classrooms were observed for evidence of most of these practices, as shown in Figure 4 and Table 12.[5]

[5] The observation of practices relating to Step 5 (not shown here but discussed in Section III.C) was limited to RLL classrooms.

Figure 4. Observation of classroom practices specifically reflecting aspects of the RLL instructional approach in Grade 1 RLL and Comparison classrooms, 2011

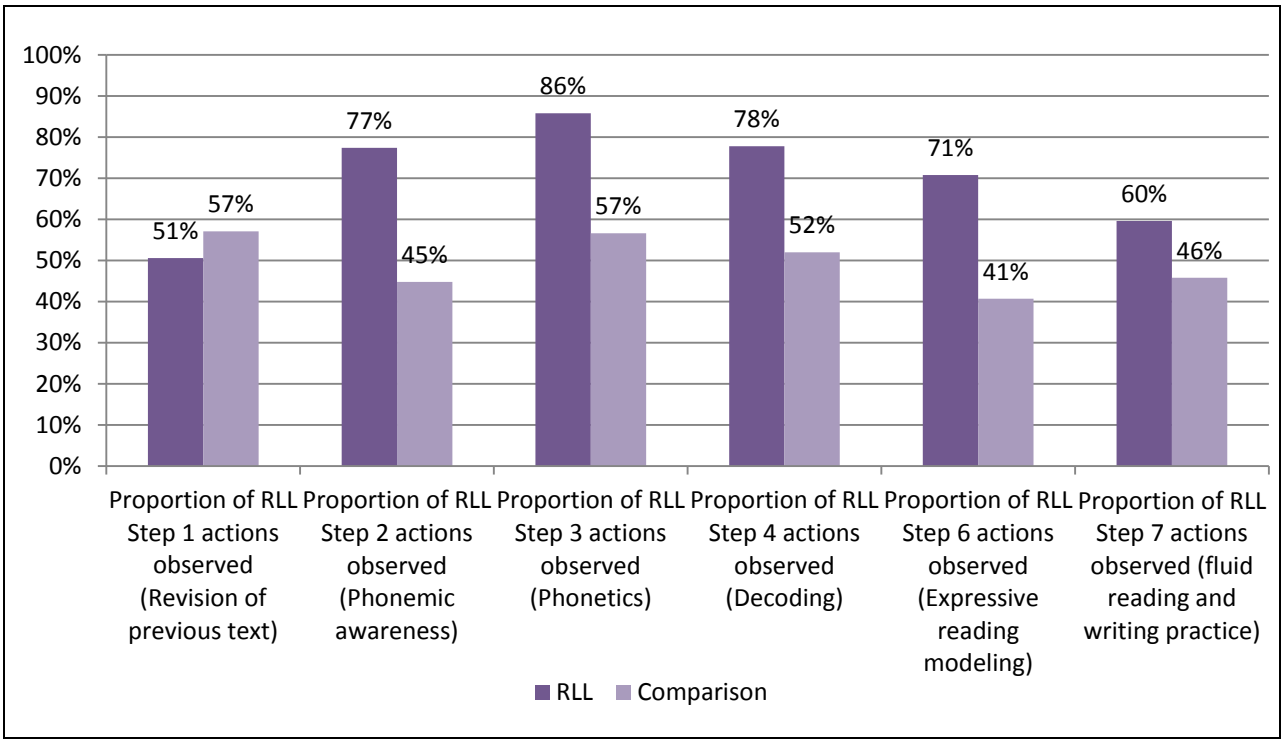


Table 12. Teacher's fidelity to specific RLL-supported classroom practices, RLL and Comparison classrooms (Grade 1 only) at 2011 follow-up

Variable	Treatment group	Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value
Fidelity to Specific RLL-Supported Classroom Practices				
OCP2_01 T first reads the text (aloud) before asking students to read (RLL-1)	*RLL*	63	.51	-.304 **
	Comparison	65	.77	.001
OCP2_02 T asks students to read previous day's booklet individually (RLL-1)	*RLL*	63	.51	.126 n.s.
	Comparison	65	.38	.171
OCP2_03 T conducts phonemic awareness section orally (RLL-02)	*RLL*	63	.80	.392 ***
	Comparison	65	.44	.000
OCP2_04 T asks students to manipulate sounds & letters in a word (RLL-2)	*RLL*	63	.75	.304 **
	Comparison	65	.46	.001
OCP2_06 T shows the letter, says its name then its sound (RLL-3)	*RLL*	63	.88	.256 **
	Comparison	65	.66	.005
OCP2_07 T asks students to read, say sounds & names of other letters (RLL-3)	*RLL*	63	.83	.416 ***
	Comparison	65	.47	.000
OCP2_09 T underlines letters with finger while reading (RLL-4)	*RLL*	63	.80	.150 n.s.
	Comparison	65	.67	.103
OCP2_10 T asks students the meaning of words (RLL-4)	*RLL*	63	.71	.298 **
	Comparison	65	.40	.001

Variable	Treatment group	Weighted Sample n	Weighted Sample Mean	Kendall's Tau B and *p* value
OCP2_11 T reviews decoded & sight words already studied with students (RLL-4)	*RLL*	63	.83	.334 ***
	Comparison	65	.49	.000
OCP2_18 T re-reads text and asks comprehension & vocab questions (RLL-6)	*RLL*	63	.75	.317 **
	Comparison	65	.41	.001
OCP2_20 T asks questions whose answers can be found in the text (RLL-6)	*RLL*	63	.71	.251 **
	Comparison	65	.44	.006
OCP2_21 T asks inferential questions - answers are NOT in the text (RLL-6)	*RLL*	63	.58	.494 ***
	Comparison	65	.11	.000
OCP2_23 T permits students to read booklets in a low voice (RLL-7)	*RLL*	63	.52	.320 **
	Comparison	65	.20	.001
OCP2_24 T helps students having difficulties to read correctly (RLL-7)	*RLL*	63	.64	-.135 n.s.
	Comparison	65	.75	.144
OCP2_25 T asks students to find a word with 'letter of the day' in it (RLL-7)	*RLL*	63	.62	
	Comparison	0[b]		
OCP2_27 T asks students to find the 'word of the day' in a sentence (RLL-7)	*RLL*	63	.46	.144 n.s.
	Comparison	65	.31	.118
OCP2_29 T asks students to make meaningful words with specific letters (RLL-7)	*RLL*	63	.57	.330 **
	Comparison	65	.28	.000
RLL1_pct Proportion of RLL Step 1 actions observed	*RLL*	63	.506	-.103 n.s.
	Comparison	65	.571	.238
RLL2_pct Proportion of RLL Step 2 actions observed	*RLL*	63	.774	.356 ***
	Comparison	65	.448	.000
RLL3_pct Proportion of RLL Step 3 actions observed	*RLL*	63	.858	.362 ***
	Comparison	65	.566	.000
RLL4_pct Proportion of RLL Step 4 actions observed	*RLL*	63	.778	.319 ***
	Comparison	65	.520	.000
RLL6_pct Proportion of RLL Step 6 actions observed	*RLL*	63	.708	.345 ***
	Comparison	65	.407	.000
RLL7_pct Proportion of RLL Step 7 actions observed	*RLL*	63	.596	.179 *
	Comparison	65	.458	.029

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; n.s. = not significant.

[a] Sample sizes and statistics are adjusted using Finite Population Correction (FPC) to approximate school population distribution of language groups.

[b] *t* cannot be computed because the standard deviations of both groups are 0.

With the exception of the first step (revision of the previous day's lesson), RLL classrooms were, not unexpectedly, more likely to display most of the practices relating to the formal steps of an RLL reading lesson. RLL classrooms on average displayed from 60% to 86% of the practices associated with a given step (Figure 4). It is noteworthy, nonetheless, that a solid, if significantly lower, proportion of these practices (ranging from 41% to 57% of practices on each step) was also observed in Comparison classrooms, despite the fact that teachers in these classrooms had

not received the RLL training. Granted, the RLL program builds upon the Ministry's Curriculum program, which also contains focus on the development of phonemic awareness, phonetics and decoding skills, and reading practice, and thus at least some of these kinds of practices should be observable in non-RLL Comparison schools. Our findings confirm that these practices are not absent in Comparison schools and that—as intended—the RLL program appears to be strengthening the use of these practices.

For a full array of weighted sample sizes, means, standard deviations, and the Kendall-s tau statistic for RLL treatment and Comparison schools across all variables presented in this section and for 2009, 2010, and 2011, please see Attachments 4.1 (school-level variables), 4.2 (Grade 1 data), and 4.3 (Grade 2 data).

B. Evolution of school characteristics and instructional practice[6]

In this section we explore the progression across years of school characteristics and instructional practices for evidence of possible effects of the RLL program. Where significant differences between RLL treatment and Comparison groups were identified for 2011, we returned to earlier study years to see whether these differences were already present at baseline (2009) or in 2010 and if not, whether they could conceptually be interpreted as resulting from the RLL program. We also discuss below other characteristics and practices that were found to have changed significantly since baseline or the first study year.

Our analytic procedure was to examine school, teacher, and classroom survey and observation data using paired t-tests and other repeated measures techniques to trace change on these variables in each school and in Grade 1 and Grade 2 classrooms in these schools over time. In other words, each "pair" was composed of a school's value on a given variable in Year X, against that same school's value on the same variable in Year Y. At the teacher/classroom level, while it was not possible to ensure that the same teacher was traced from one year to another, we matched on grade level within school to create a given pair across years. The significance of change in pairs was evaluated separately for RLL and Comparison schools and classrooms.

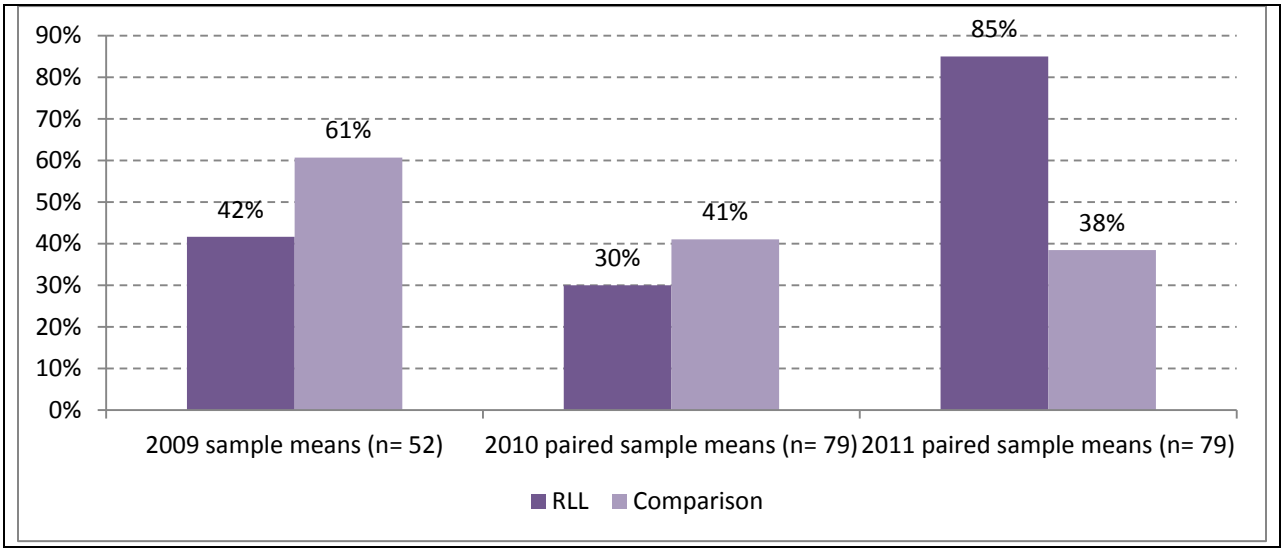
Given the low response rates already discussed for the 2009 dataset, the reduction of the 2010 dataset to 40 schools in RLL treatment and Comparison groups, and random attrition, only 53 schools (out of 100) had data at both 2009 and 2011 on the variables of greatest interest. We had greater luck for the 2010-2011 analyses, for which a total of 79 schools (out of 80) provided data at both years. Thus, the results of 2010-2011 analyses are emphasized below. Full results showing unweighted means, degrees of freedom, and t-values for all pairs examined are provided in Attachments 4.4 (school-level variables), 4.5 (Grade 1 data), and 4.6 (Grade 2 data).

[6] Throughout Section III.B, data presented for 2011 may differ somewhat from those presented for the same variables in Section III.A. This difference occurs because the earlier section employs the full 2011 sample, with means adjusted for language group; whereas Section III.B uses only those cases on which data can be paired with equivalent information from previous years.

1. Evolution of pedagogical leadership and teacher preparation for national language instruction

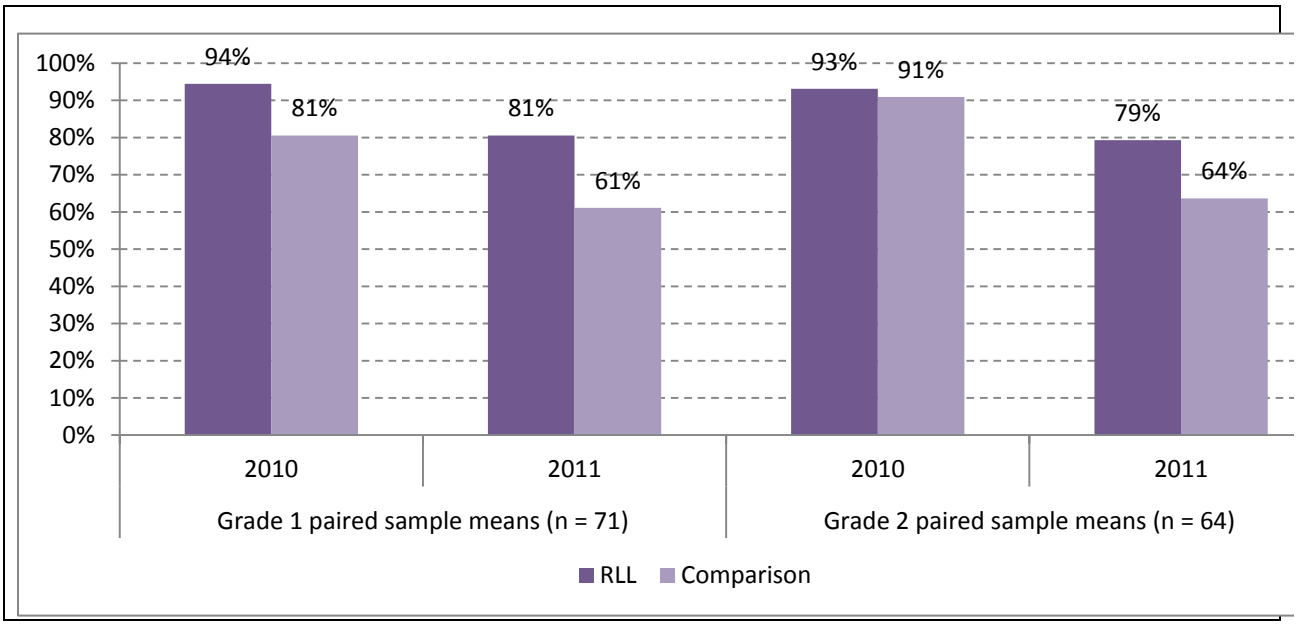
We turn first to evidence of pedagogical leadership and teacher preparation for national language instruction. As part of the Curriculum program of primary-level reading instruction in national languages, school principals were expected to train teachers in instructional methods. As shown in Figure 5, the data confirm that Comparison as well as RLL treatment school teachers were engaged in this work across the years; however, while the proportion in Comparison schools appears to have declined over the years, for RLL treatment schools the proportion increases dramatically, with fully 85% of RLL treatment school principals reporting in 2011 that they had trained teachers in national languages. This finding is further strengthened by a strong correlation (Kendall's tau = 0.668, not shown) in 2011 between principals' having received IEP instruction themselves and providing training to teachers in national language instruction. Combined with a very weak correlation between these two variables (Kendall's tau = -0.082) in 2010, the results support the logical notion of a "lag time" between being trained and training others.

Figure 5. Proportion of school principals who report having trained teachers in application of the Curriculum instructional program in national languages, 2009 to 2011



Turning to teachers' own reports of being trained in national language instruction (considering all sources of training, not solely that provided by the principal), we find a somewhat different picture (Figure 6). In 2010, a high proportion of both RLL and Comparison teachers reported having received training in national languages instruction, in both Grades 1 and Grade 2. A year later, these proportions have dropped, particularly in Comparison schools (though the drop is significant only for Grade 2 Comparison classrooms). This more marked decline in Comparison schools produces the significantly higher proportion of RLL school teachers in both Grades 1 and 2 who report having received training in national language instruction compared with their Comparison counterparts, as discussed in Section III.A.3 above.

Figure 6. Proportion of teachers who report having received training in national languages, by Grade, 2010 and 2011



The finding of any decline between 2010 and 2011 may seem puzzling at first. However, given the Government's suspension of in-service teacher training in national language instruction during 2010-2011, the drop may be attributed both to new teachers arriving in Curriculum schools without the benefit of this training, the cross-sectional nature of the teacher sample,[7] and possibly, an implicit understanding on the part of some teachers that the question referred to "recent" training (though the question itself did not specify a time period). In any case, the results support the conclusion that the RLL program over time has been better able to ensure that teachers receive some form of training in national languages instruction.

On six other indicators of pedagogical leadership and teacher preparation and support that were examined (supervisor review of lesson plans and frequency of review; school supervisor's observation of classrooms and frequency of observation; teacher training received from IEP; and teacher's access to other support for national language instruction), only one significant change over time was found. A significantly smaller proportion of teachers in RLL Grade 2 classrooms reported that their classroom was observed only every two months or less in 2011 (3%) than in 2010 (31%) (Attachment 4.6).

2. Evolution of material inputs available in the classroom

As discussed earlier, both the government's Curriculum program generally and the RLL program are intended to provide schools and teachers with not only teacher training in national languages instruction, but also books and other instructional materials in the specific language of instruction. Information was available across the years of the study for two indicators: whether

[7] While schools remained constant over time, no explicit attempt was made to re-survey or trace the same teachers.

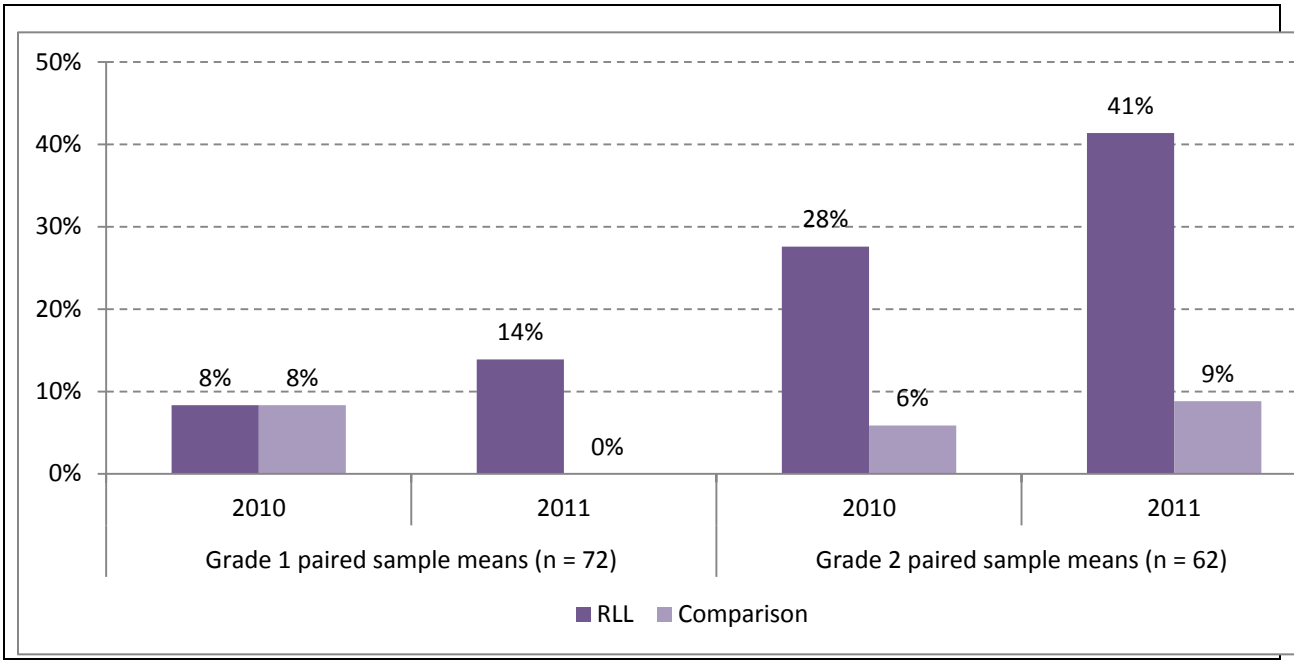
teachers had received books from the Ministry for teaching in national languages, and the proportion of students in the classroom who had the national language schoolbook.

On the first indicator, whether teachers had received Ministry books on teaching in national languages, for both Grade 1 and Grade 2 classrooms in both RLL and comparison schools, teachers reported no significant change between 2009 and 2011.

On the second indicator, we find increasing scarcity of the schoolbook over time for Grade 1 Comparison classrooms, which display a significant increase in the proportion of classrooms where fewer than 25% of students have the schoolbook, between 2010 (83%) and 2011 (94%) (Attachment 4.5). Grade 1 RLL classrooms do not change significantly on this indicator, though they display a non-significant increase in the proportion of classrooms in which over 75% of students have the schoolbook (Figure 7).

For Grade 2, however, we see a solid and increasing advantage of RLL classrooms on this indicator over time, with both a reduction in the proportion of Grade 2 RLL classrooms where fewer than 25% of students have the national language schoolbook (Attachment 4.6), and an increase in the proportion of classrooms in which over 75% of students have the schoolbook (Figure 7 and Attachment 4.6).

Figure 7. Proportion of classrooms in which over 75% of students are observed to have national language schoolbook on day of visit, by Grade, 2010 and 2011

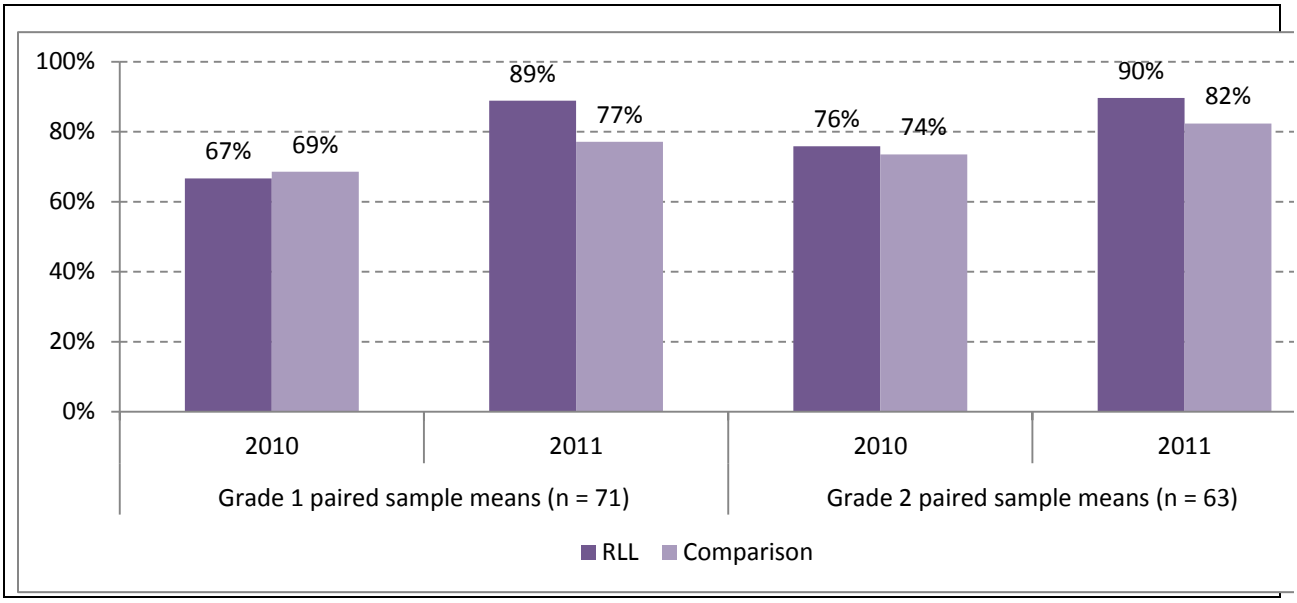


The data suggest that RLL has made an important contribution in ensuring that Grade 2 classrooms and students are supplied with Government national language schoolbooks, even as Comparison schools and RLL Grade 1 classrooms remained at a low level of supply.

Chalk and slate, while critical implements for early grade reading acquisition in the Malian setting, are not commodities that Government or RLL aim to provide routinely to students, but

rather represent family or private contributions. As such, the proportion of students with chalk and slate can be interpreted as a measure of family engagement and material support of their children's learning. In this case, both RLL and Comparison Grade 1 and Grade 2 groups display increases from 2010 to 2011 in the proportion of classrooms in which over 75% of students have chalk and slate. Only Grade 1 RLL classrooms show a significant increase, however, and by 2011 these classrooms significantly overtake Grade 1 Comparison classrooms on this indicator (Figure 8).

Figure 8. Proportion of classrooms in which over 75% of students are reported to have chalk and slate in class on day of visit, by Grade, 2010 and 2011

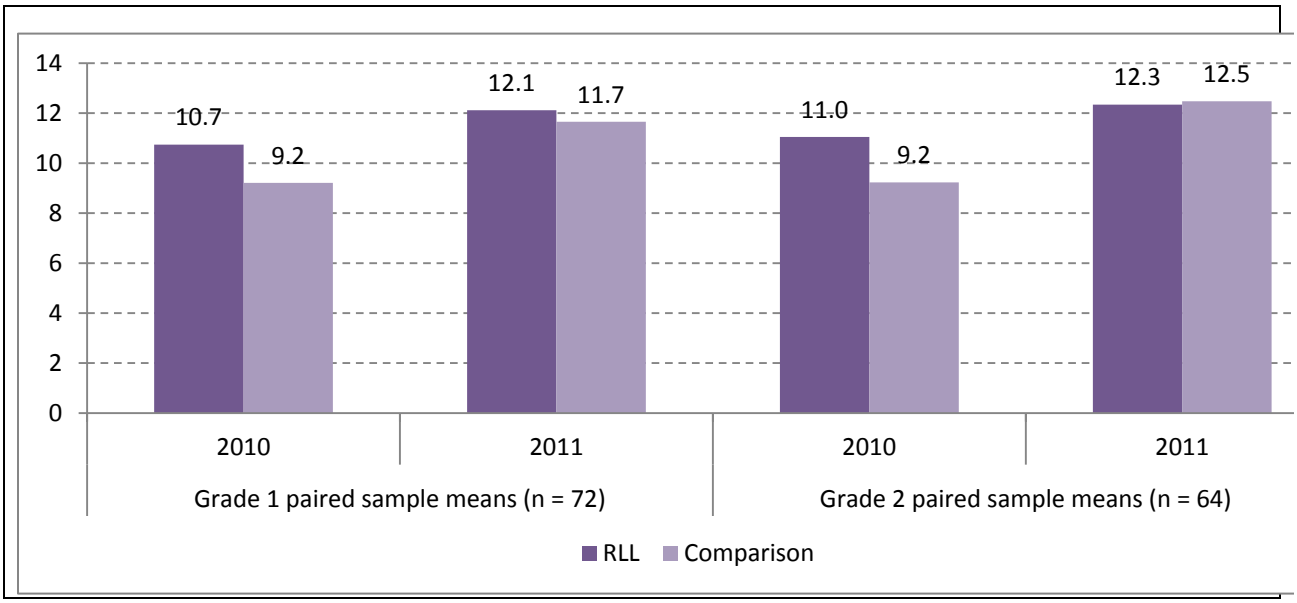


In different ways at Grade 1 and Grade 2, then, the RLL program over time appears to be having a positive effect on students' material environment for learning, encouraging families and Government to provide needed inputs, above and beyond the specific inputs made directly by RLL (Ciwara Lisent Books 1 and 2, manipulables, and wall displays).

3. Evolution of Teacher practices in RLL treatment and Comparison classrooms

This study's 2009, 2010, and 2011 data collections also offer the opportunity to examine whether teachers' practices have changed over time in RLL and Comparison classrooms. The data on general good classroom practices, presented for 2011 in Table 10, are available from classroom observations at both 2010 and 2011. Fourteen of these practices were combined in a summary measure indicating the number of general good teaching practices observed (Figure 9).

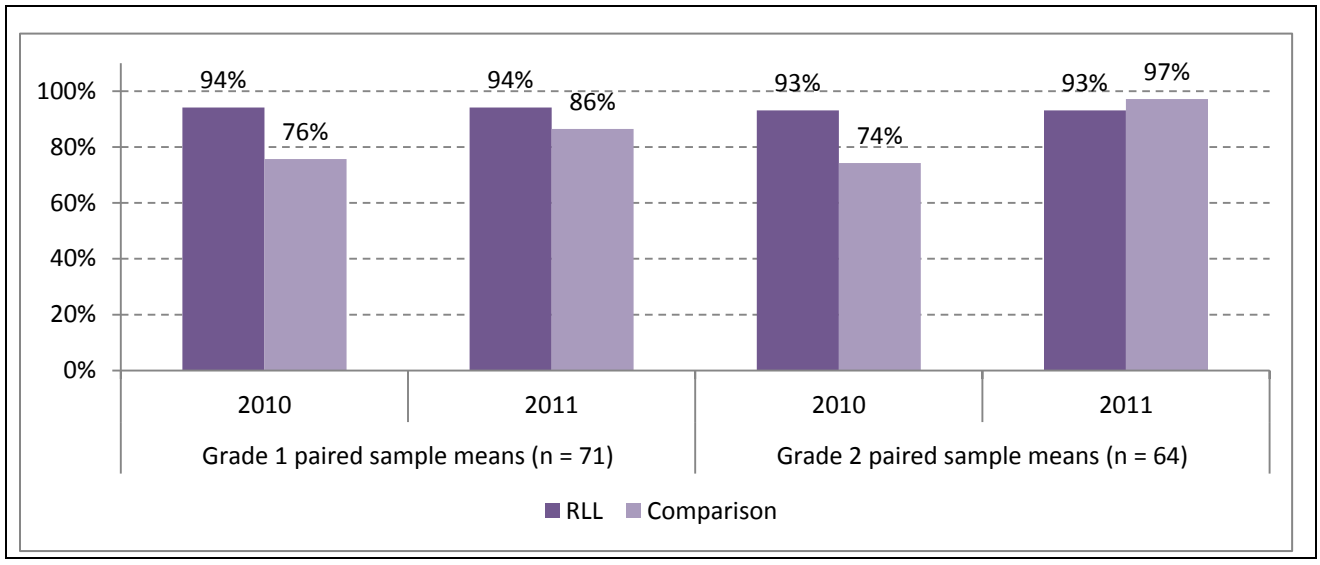
Figure 9. Average number of general good teaching behaviors observed (out of 14), by Grade, 2010 and 2011



For both Grade levels and in both RLL and Comparison schools, the average number of good practices observed increased, particularly in Comparison schools. These increases were significant for Grade 1 in both RLL and Comparison schools, but only for Comparison schools in Grade 2. For Grade 2, the relatively greater increase in Comparison schools by 2011 effectively eliminated the significant advantage of RLL classrooms found in 2010 (see also Attachments 4.2 and 4.3).

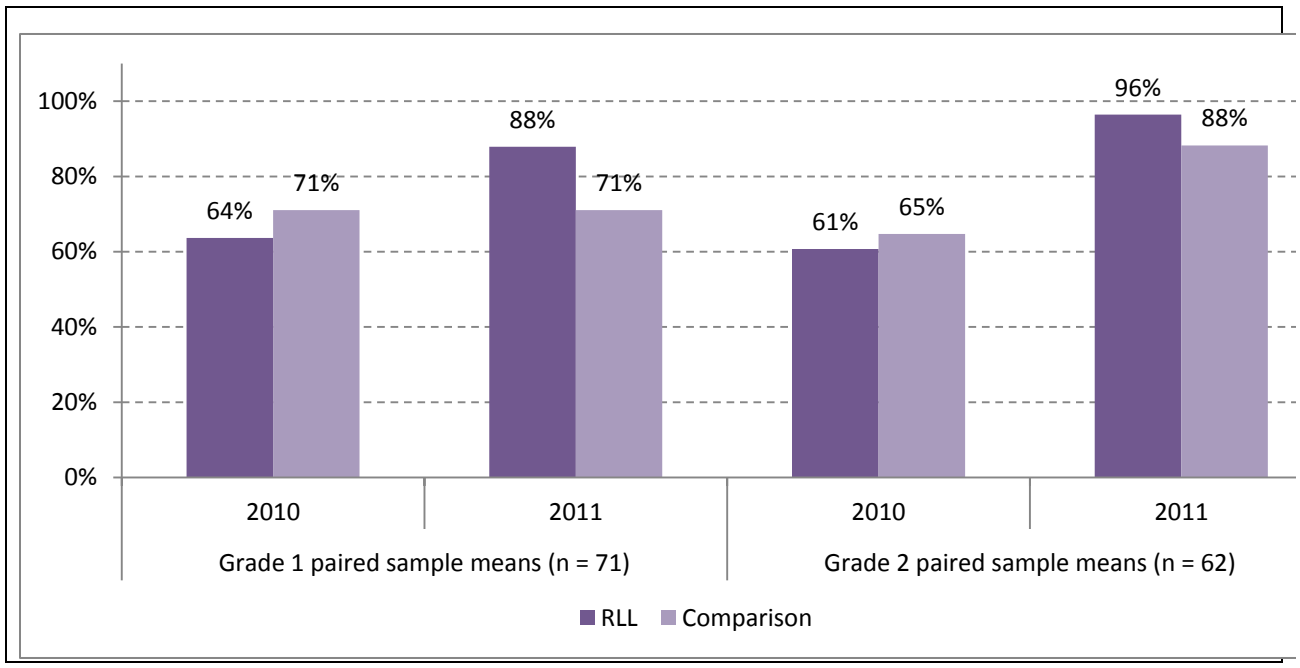
Some of the specific practices included in the summary score are examined further below. Aligning the lesson with the Curriculum program-prescribed "Lesson of the day" (Figure 10) roughly follows the summary pattern seen above, although RLL classrooms were already nearly "topping out" in 2010 and maintained these levels in 2011, while Comparison schools showed improvement from 2010 to 2011, again effectively eliminating the advantage of RLL classrooms found on this variable in 2010, for both Grade 1 and Grade 2.

Figure 10. Proportion of classrooms in which lesson is observed to be aligned with program "lesson of the day," by Grade, 2010 and 2011



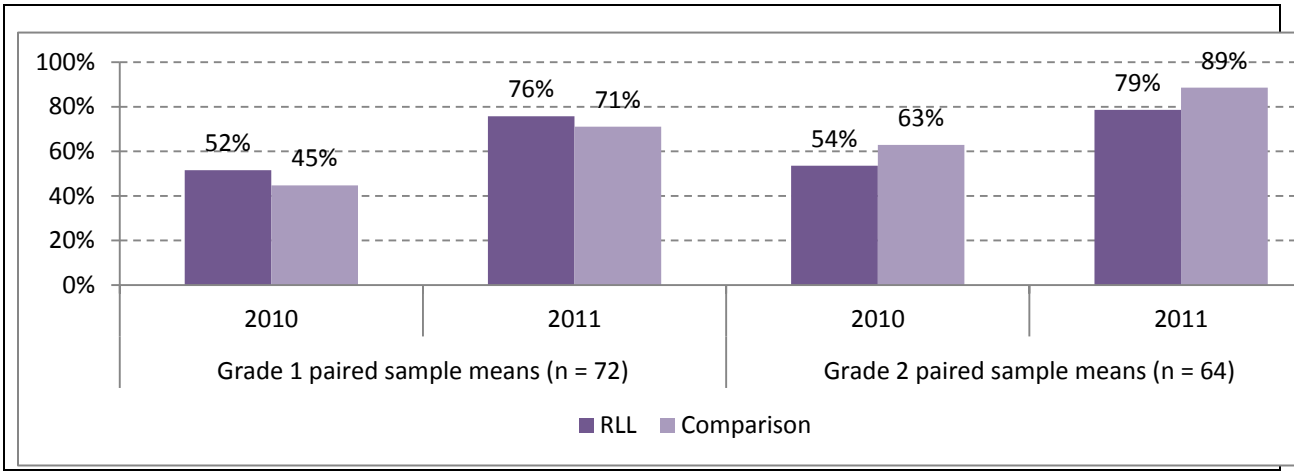
The practice of pausing to check students' understanding in the course of the lesson (Figure 11) differs somewhat from the summary pattern, in that the proportion of RLL classrooms in which teachers use this practice is observed to increase significantly, and more markedly, than in Comparison classrooms from 2010 to 2011 in both Grade 1 and Grade 2 classrooms. These increases, however, do not yet translate into a significant advantage of RLL classrooms over Comparison classrooms in 2011.

Figure 11. Proportion of classrooms in which teacher is observed to pause to ensure that students understand, by Grade, 2010 and 2011



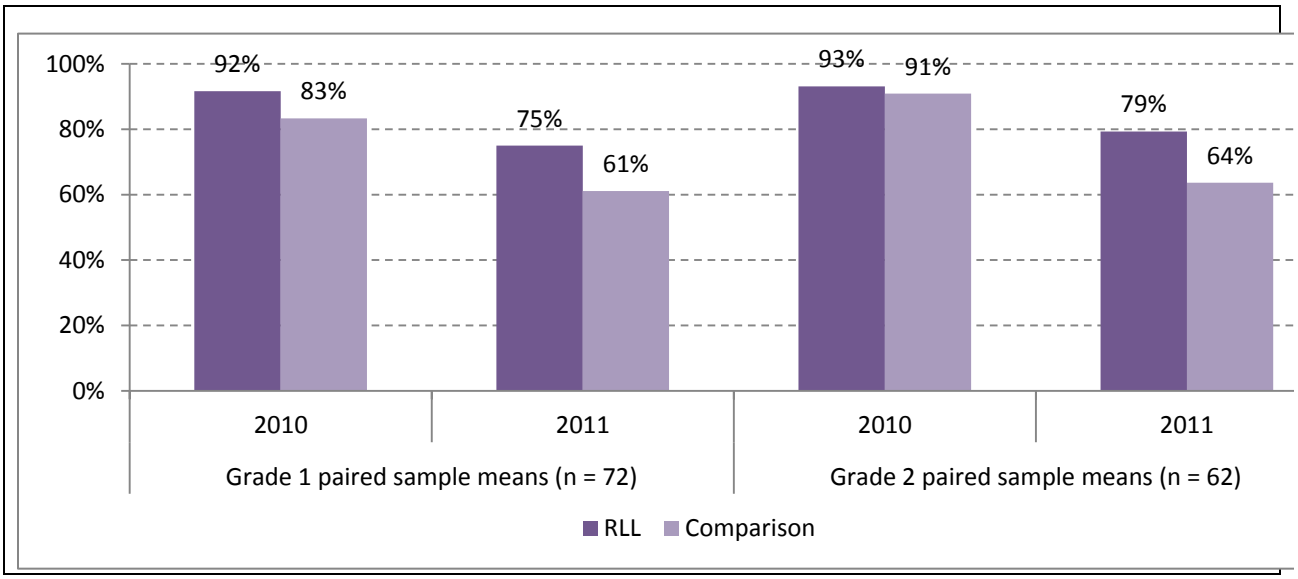
The practice of writing the lesson on the blackboard prior to class (Figure 12) follows the general trend of increasing practice in both RLL and Comparison classrooms and in both Grades 1 and 2, with a striking difference. In RLL classrooms, the proportion is about the same, regardless of grade level, whereas in Comparison Grade 2 classrooms the proportion is substantially higher than in Grade 1, in both years. This pattern suggests that on the whole, Grade 1 Comparison group teachers, while changing, have continued to lag behind their Grade 2 colleagues in adopting this practice in their classrooms. While the differences between RLL and Comparison classrooms by Grade for a given year are non-significant, the modest yet persistent interaction of grade level and treatment or comparison group suggests that the practice may be deemed less appropriate at Grade 1 in particular in Comparison schools.

Figure 12. Proportion of classrooms in which lesson is written on blackboard before the start of class, by Grade, 2010 and 2011



As noted in Section III.A.3, in 2011 RLL teachers in both Grade 1 and Grade 2 were observed to circulate among the students in their classrooms more often than their Comparison school counterparts. At the same time, even in these RLL classrooms, the practice generally has declined since 2010. This decline has been most marked in Comparison classrooms, but is still significant in RLL classrooms at both grade levels.

Figure 13. Proportion of classrooms in which teacher is observed to circulate among tables to make sure students are reading, by Grade, 2010 and 2011



Avoidance of the use of French in the National Language classroom is another practice that appears to have declined from 2010 to 2011, although this change is significant only in Grade 1, for both RLL and Comparison classrooms (not shown; see Attachment 4.5 for Grade 1, Attachment 4.6 for Grade 2). In other words, teachers reported using French more frequently in class by 2011, though still at a relatively low level in RLL classrooms.

Overall, the examination of change over time in general good classroom practices presents a pattern of improvement (increase) in most practices for both RLL and Comparison classrooms, a few instances of decline, and some interesting Grade-specific variations. With a few exceptions, the result is that the RLL advantage found in several practices in 2010 has dissipated by 2011, suggesting a tendency for RLL teachers to relax in the use of these practices, even as their Comparison peers increasingly adopt some of them.

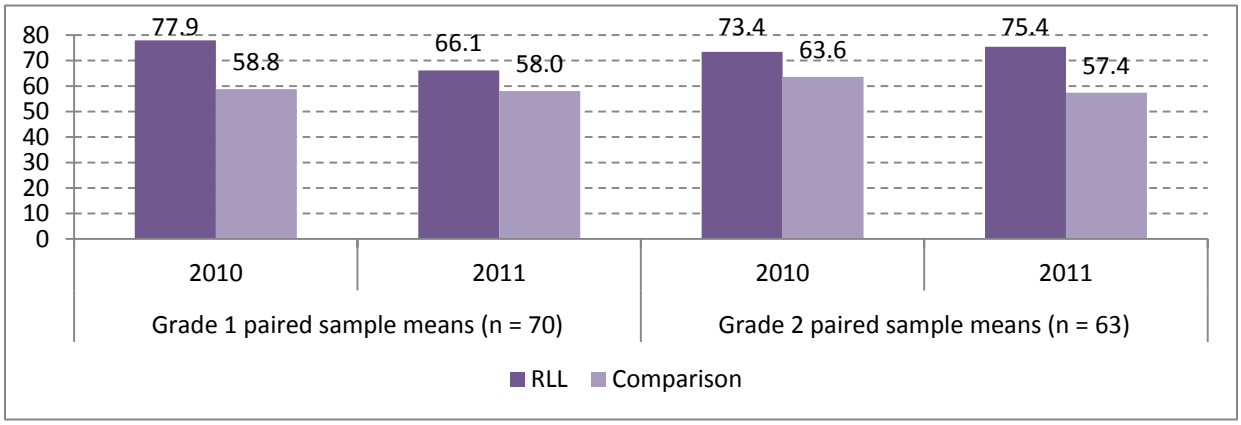
4. Evolution of student engagement behaviors and activities observed in RLL treatment and Comparison classrooms

A range of positive student engagement behaviors and student-centered activities, presented earlier for 2011 (see Table 11), can be said to broadly capture an important feature of RLL's approach: active learning. Some of these behaviors and activities also were measured in earlier years of the study, thus affording the opportunity to look for changes over time.

While neither a behavior nor an activity, class size, reflected in class enrollment, constitutes the context within which student-centered activity takes place. As noted earlier, RLL classes in our sample were characterized by somewhat larger enrollments in 2011 than Comparison classrooms. This general pattern held in 2009 (not shown; see Attachment 4) and 2010, when Grade 1 RLL classrooms were significantly larger than Comparison classrooms (Figure 14). It is to be expected that the 2010 Grade 1 student enrollment pattern should be reflected one year later in Grade 2, as below, given the movement of the cohort through the system. At the same time, the 2011 RLL Grade 1 average enrollment is significantly smaller (at 66.1 students) than it had

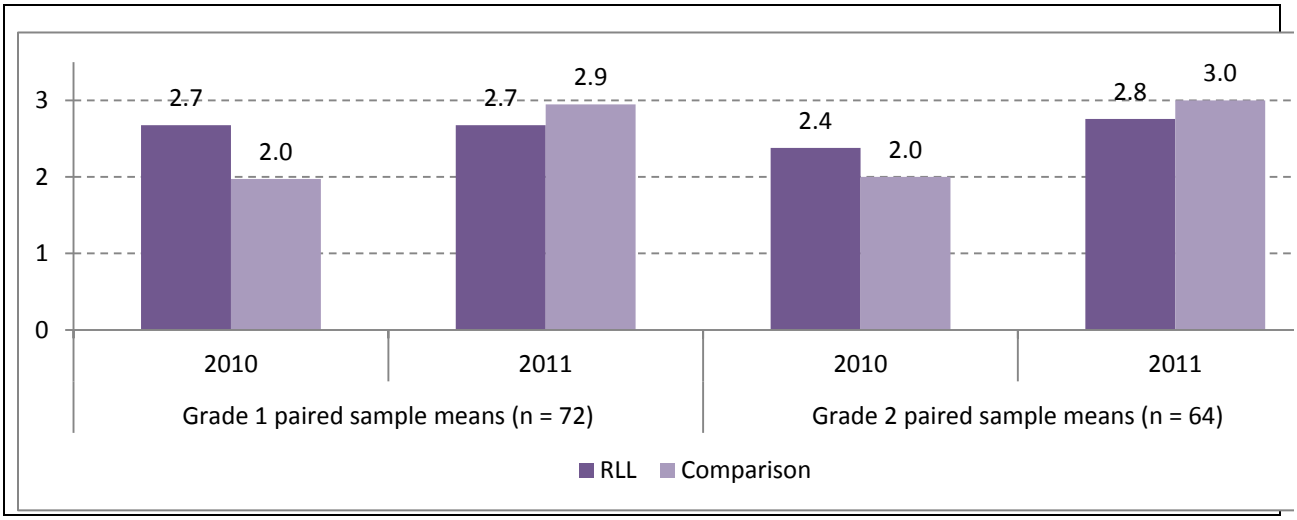
been in 2010 (nearly 78 students) and no longer significantly different from that of Comparison Grade 1 classes. This change would suggest positive movement toward more reasonable class size in RLL schools, to be confirmed (or not) only with subsequent years of data.

Figure 14. Average class enrollment (number of students) by Grade, 2010 and 2011



Three student engagement behaviors (interaction with teacher, apparent motivation to learn, and "busy" behavior) were observed both in 2010 and 2011, and summarized as an additive score (Figure 15). As with many of the general teaching practices discussed earlier, Comparison classrooms advanced more on this summary measure than RLL classrooms between 2010 and 2011, eclipsing the significantly greater showing of RLL Grade 1 classrooms on the measure found in 2010. While RLL classrooms maintained (Grade 1) or reached (Grade 2) a high level of observable student engagement from 2010 to 2011, Comparison classrooms improved enough on this dimension to meet and even surpass them (though not significantly).

Figure 15. Average number of student engagement behaviors observed (out of three), by Grade, 2010 and 2011

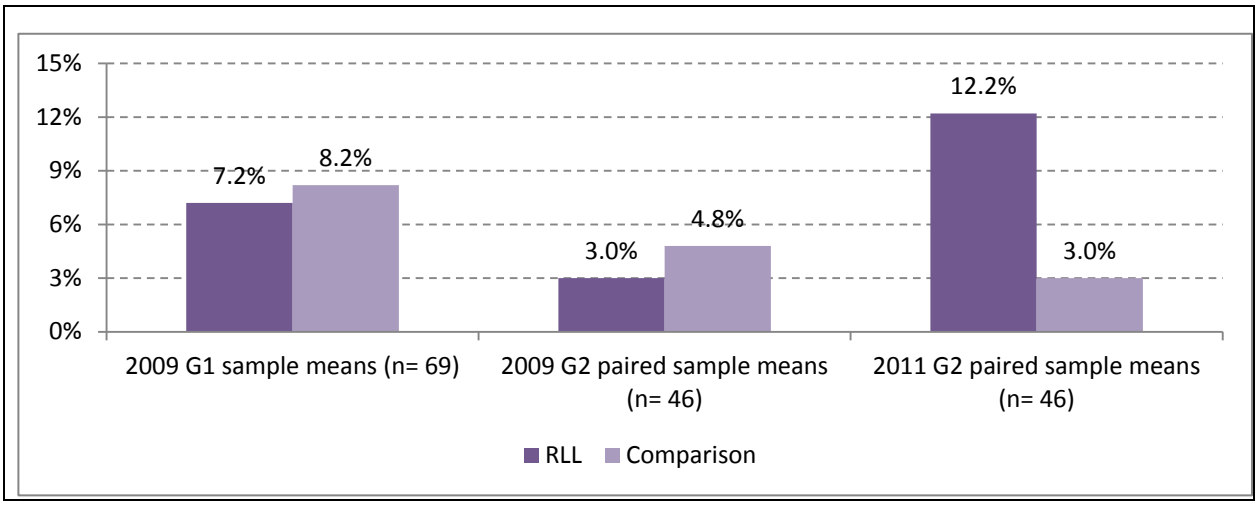


A series of observable measures of student-centered activities led or organized by the teacher, are available at 2009 for both Grade 1 and Grade 2, and at 2011 for Grade 2 only. These include teacher's focus on a small group, teacher's focus on a single student, a single student reading aloud, students reading aloud together, students repeating or reciting aloud, one or more students

writing at the blackboard, and students writing in their notebooks or slate. On all seven measures, RLL classrooms did not differ significantly from Comparison classrooms at baseline (Attachments 4.2 and 4.3).

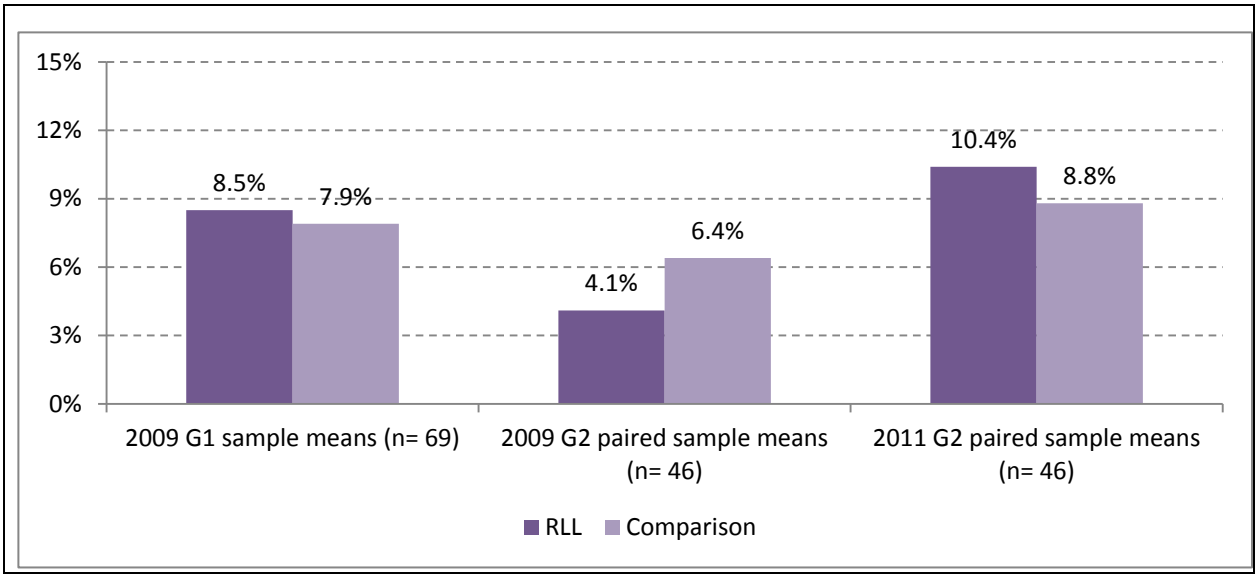
By 2011, however, Grade 2 classrooms showed substantially different results on a number of measures. At 2011, RLL Grade 2 classrooms were significantly more likely to engage students in reading aloud together for a greater proportion of the lesson (Figure 16; from 3% of 15 observations across a lesson period, to over 12% of 15 observations), whereas Grade 2 Comparison classrooms declined slightly in this activity.

Figure 16. Average proportion of times (out of 15 observations) in which students are observed to be reading aloud together, Grade 1 and Grade 2 (2009), Grade 2 only (2011)



RLL Grade 2 teachers were also significantly more likely to spend a greater proportion of lesson time on students writing at the blackboard in 2011 than in 2009 (Figure 17; increasing from 4.1% of observation moments to 10.8%). While RLL Grade 2 classrooms did overtake Comparison classrooms in the proportion of time spent on this activity between 2009 and 2011, the differences between RLL and Comparison classrooms were not significant in either year.

Figure 17. Average proportion of times (out of 15 observations) in which students are observed to be writing on the blackboard, Grade 1 and Grade 2 (2009), Grade 2 only (2011)



The proportion of classroom activities in which students were repeating aloud or reciting increased significantly from 2009 to 2011 for both RLL and Comparison classrooms, whereas on measures reflecting teacher focus on small groups and activities with individual students, both RLL and Comparison classrooms declined significantly. The proportion of classroom activity involving students writing in their notebooks, meanwhile, did not change over the same period for either group (not shown; see Attachment 4.6).

In summary, the analyses presented in this Section have helped to clarify whether significant differences observed at 2011 between RLL and Comparison schools and classrooms were simply the continuation of prior differences, or differences that emerged and strengthened with the progress of the RLL intervention. The results have, in this manner, helped to confirm RLL's role in shoring up the Curriculum program's preparation of school principals and teachers to carry out national language reading instruction, and ensuring that schools, teachers, and students have the necessary material inputs to support this instruction.

At the same time, the examination of observed and reported classroom instructional practices and student engagement over time has produced a much more nuanced picture. Comparison classrooms were found to display changed, often improved, practices by 2011, almost as often as RLL classrooms. In addition, RLL classrooms were found to display some areas of slippage from good practice between 2010 and 2011, such that some of the apparent benefits of RLL participation found in 2010 were no longer evident in 2011.

C. Variability of inputs and practice across RLL schools and by language

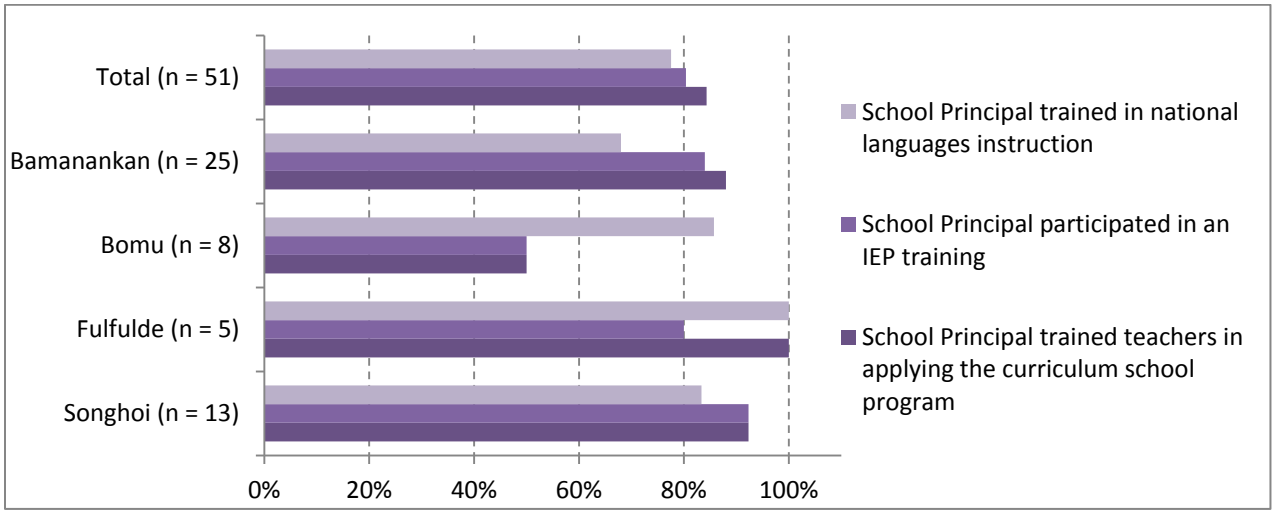
The examination of indicators in terms of their aggregate, group-level values does not always adequately present or represent the range and variability that may exist across individual schools, teachers, and classrooms—even, and most particularly, within the "treatment" group for a given intervention. In our case, we are concerned to know whether RLL inputs were uniformly available as intended across schools in the treatment group (fidelity of implementation), as well as whether teachers were able to make similar use of these inputs (effectiveness of implementation) in these schools, which may be quite heterogeneous (in terms of teachers, principals, and schools' linguistic and material environment and resources) to begin with.

The present section aims to explore in more depth the range of variability that exists even among the RLL schools in the study, across these dimensions. While by no means the only relevant distinguishing feature of individual RLL schools, schools' official national language of instruction is used in the following presentation to illustrate this variability.

1. Variability across RLL school principals in their own national languages instruction training experience

As the "first responder" available to provide pedagogical support and guidance to primary school teachers, the school principal plays an important role in the uptake and sustainability of innovative practice in schools. IEP, recognizing this fact, endeavored to reach RLL school principals early on, introducing them to the RLL approach through training and involving them as trainers of teachers in the approach. The degree to which these personnel were prepared and engaged to take up and support the RLL approach varied across schools, however, as shown in Figure 18.

Figure 18. National languages instruction training experience of RLL school principals, by school's language of instruction, 2011



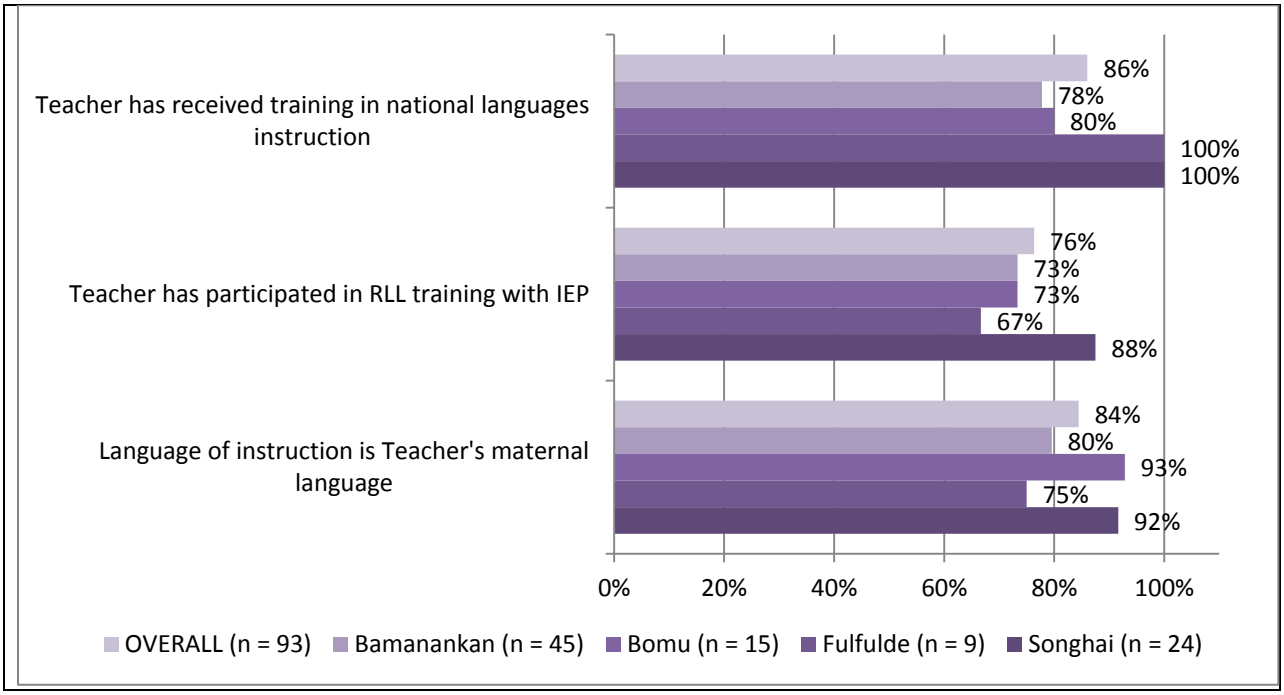
Overall, 78% of RLL school principals had received training in national language instruction from the Ministry or other sources, 80% of them reported receiving IEP training, and 84% reported training teachers in the Curriculum program. In other words, the data overall present a

relatively good proportion of preparation and engagement, although not 100%. A full 20% of RLL school principals reported that they had not participated in any IEP training on RLL. The situation for RLL Bomu-language schools (where 50% of principals reported neither receiving the IEP training nor participating in training teachers in the Curriculum program) is particularly concerning.

2. Variability in RLL Teachers' national language instruction training and linguistic background

Turning to teachers' preparation for teaching in national language (Figure 19), we see proportions of teachers with appropriate training that are similar to those found among school principals, with some exceptions. Overall, 86% of RLL teachers reported having received training in national languages (including MEALN and other sources), although only 76% reported that they had participated in IEP's training on the RLL approach.

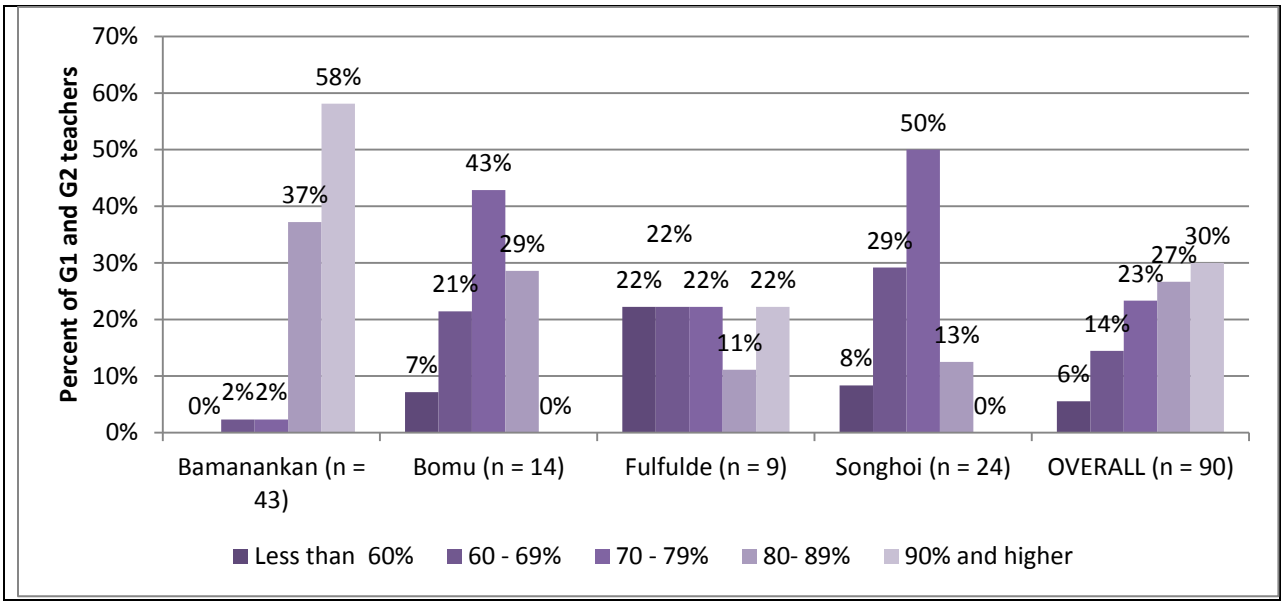
Figure 19. Proportions of RLL Grade 1 and Grade 2 teachers receiving national language instruction training and by linguistic background, by school's language of instruction, 2011



Teachers in Fulfulde-language RLL schools appear to be particularly disadvantaged, with only 67% of them reporting that they had benefited from the IEP training. In addition, only 75% of teachers in Fulfulde-language RLL schools indicated that Fulfulde was their own mother tongue, whereas 80% of teachers in Bamanankan-language RLL schools and over 90% of teachers in both Bomu-language and Songhai-language RLL schools, were teaching in their mother tongue.

In 2011, as noted earlier, we were also able to assess teachers directly on their reading and writing abilities in the language of instruction. Figure 20 presents the variability in RLL teachers' combined scores across the four measures administered.

Figure 20. Distribution of RLL teachers' reading scores in language of instruction, by school's language of instruction, 2011



The results indicate that nearly 50% of RLL teachers overall were themselves unable to demonstrate solid literacy skills (80% average score or higher) in the language in which they were teaching children to read, even by the second year of the RLL program (2011). The proportion of teachers with particularly weak skills was found to be highest in Fulfulde-language schools (with 44% of teachers unable to obtain a score of 70% correct), followed by teachers in Songhai-language schools (37%) and Bomu-language schools (28%). At the same time, some of the most skilled teachers in terms of literacy in language of instruction were also found in Fulfulde-language, as well as Bamanankan-language RLL schools.

3. Variability in availability of instructional LOI materials in RLL classrooms

In addition to pedagogical guidance and support and teachers' own preparation and skills, the availability of appropriate instructional materials is an essential factor in early grade reading instruction. The RLL approach, as we have seen, has placed an emphasis on developing such appropriate materials in each national language, getting these materials into schools, and guiding teachers and students in their use. As a measure of fidelity of implementation of the RLL program, therefore, it is useful to examine the extent to which material inputs have reached RLL schools and classrooms as intended (Figure 21 and Figure 22).

During 2011 classroom observations, the study team found school textbooks in the language of instruction in fewer than 60% of RLL classrooms overall. While Bamanankan- and Bomu-language classrooms fared better (though 30% and 25% of these, respectively, were still found to be without appropriate textbooks), the situation was far worse in Songhai-language and Fulfulde-language classrooms (with only 44% and 20% of classrooms, respectively, found to have textbooks in the language of instruction).

Although the availability of RLL books was substantially higher, over 20% of RLL classrooms in the sample were still found not to have these books in 2011, and the same was true for 40% of

Fulfulde-language classrooms. Only a small proportion (9%) of RLL classrooms had any other books in the language of instruction, with Songhai-language classrooms (24%) being somewhat better-provisioned than others. Wall displays from MEALN, IEP, and possibly other sources were somewhat more in evidence, following the pattern of textbook availability overall, with Fulfulde-language classrooms again being the least likely to be provisioned. (Only 10% of Fulfulde-language classrooms were found to have wall displays in LOI.) At the same time, Fulfulde-language classrooms were among the most likely to have teacher-made LOI materials (70% of these classrooms, following 75% of Bomu classrooms), in part, no doubt, to mitigate the lack of print media.

Figure 21. Variability in availability of reading and other instructional materials in language of instruction in RLL classrooms, by school's official language of instruction, 2011

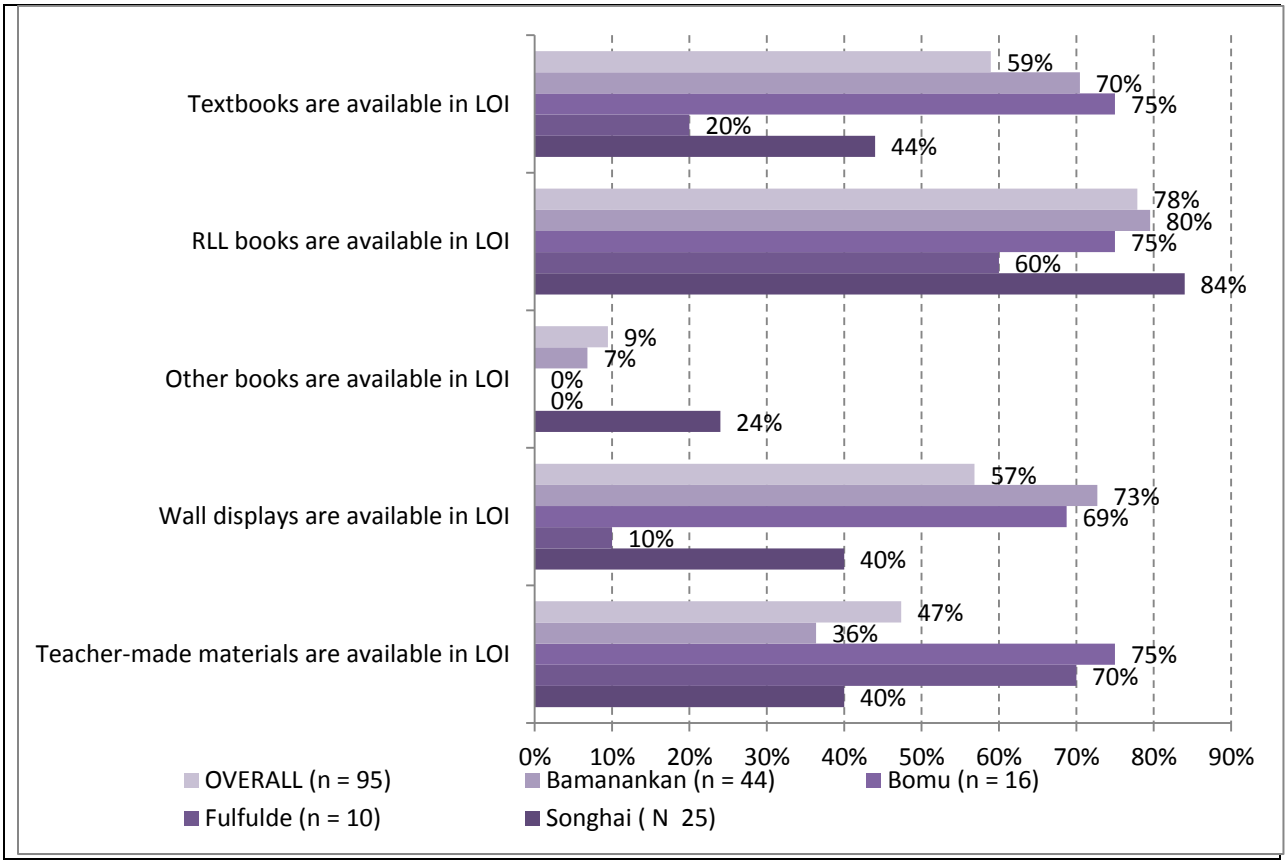
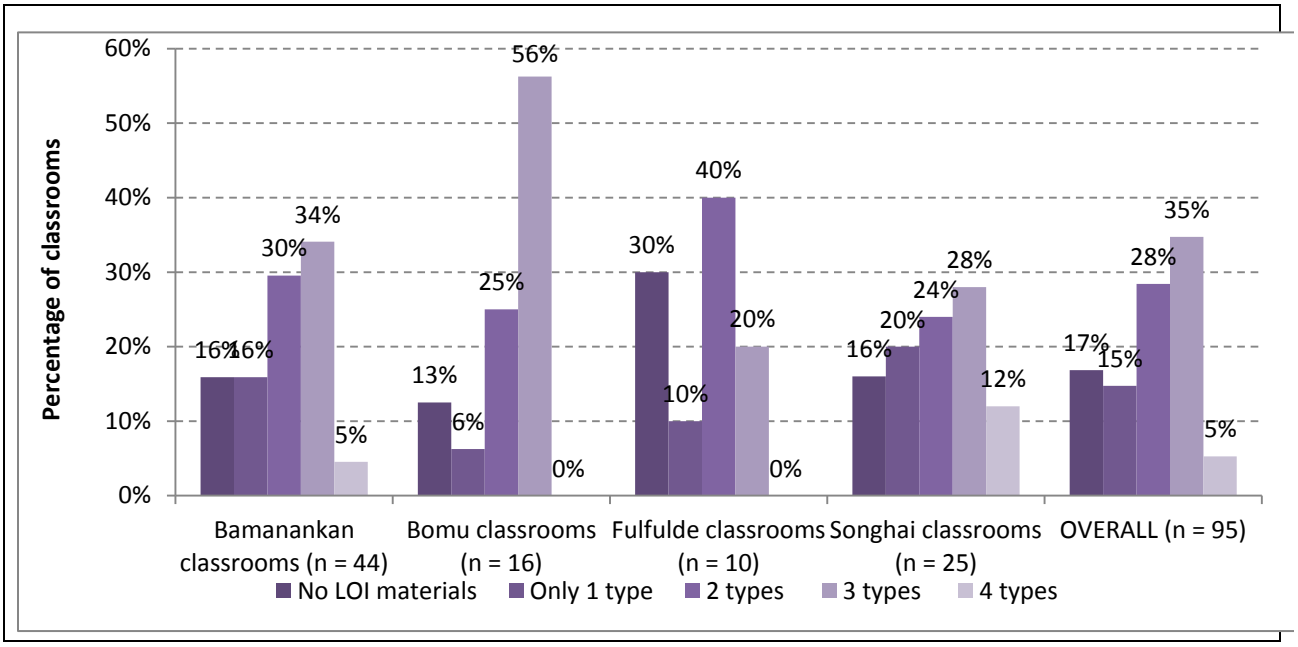


Figure 22 represents the degree to which a variety of materials (across the five types presented above) are available in RLL classrooms. Remarkably in 2011 (the second year of operation of the RLL program in these schools), the study team was unable to find a single type of material in LOI, even teacher-made, in 16 of the RLL classrooms studied (17%). The proportion reached as high as 30% of Fulfulde-language classrooms, although this proportion represents only three classrooms.

Figure 22. Number of types of language of instruction reading and other instructional materials observed to be present in RLL classrooms, by school's official language of instruction, 2011



Not a single classroom among the 95 RLL classrooms surveyed was found to have all five types of materials, and only 5% were found to have four out of five. These data underline the fact that, even with the important contributions made by RLL and other sources, including individual teachers, a substantial number of RLL classrooms remain lacking in the most basic instructional materials.

4. Variability in RLL teachers' instructional practice

Data from classroom observations also provide insight into the variability of teacher instructional practice in RLL classrooms. The summary variable of 14 "good classroom practices" recognized generally and supported by RLL, offers a broad picture (Figure 23). Overall, 64% of RLL teachers observed in 2011 were found to employ 13 or all 14 of these practices (see the OCP series listed in Table 10) in their reading lesson. An even higher proportion of teachers in Bamanankan- and Bomu-language classrooms employed such a breadth of good practices; however, 25% of teachers in Bomu-language classrooms displayed only six or fewer practices. Over 90% of teachers in Bamanankan-, Fulfulde-, and Songhai-language classrooms were found to display at least 10 of the 14 practices, compared with 75% of teachers in Bomu-language classrooms.

Figure 23. Proportion of RLL classrooms by number of good general classroom practices observed (out of 14) and school's official language of instruction, 2011

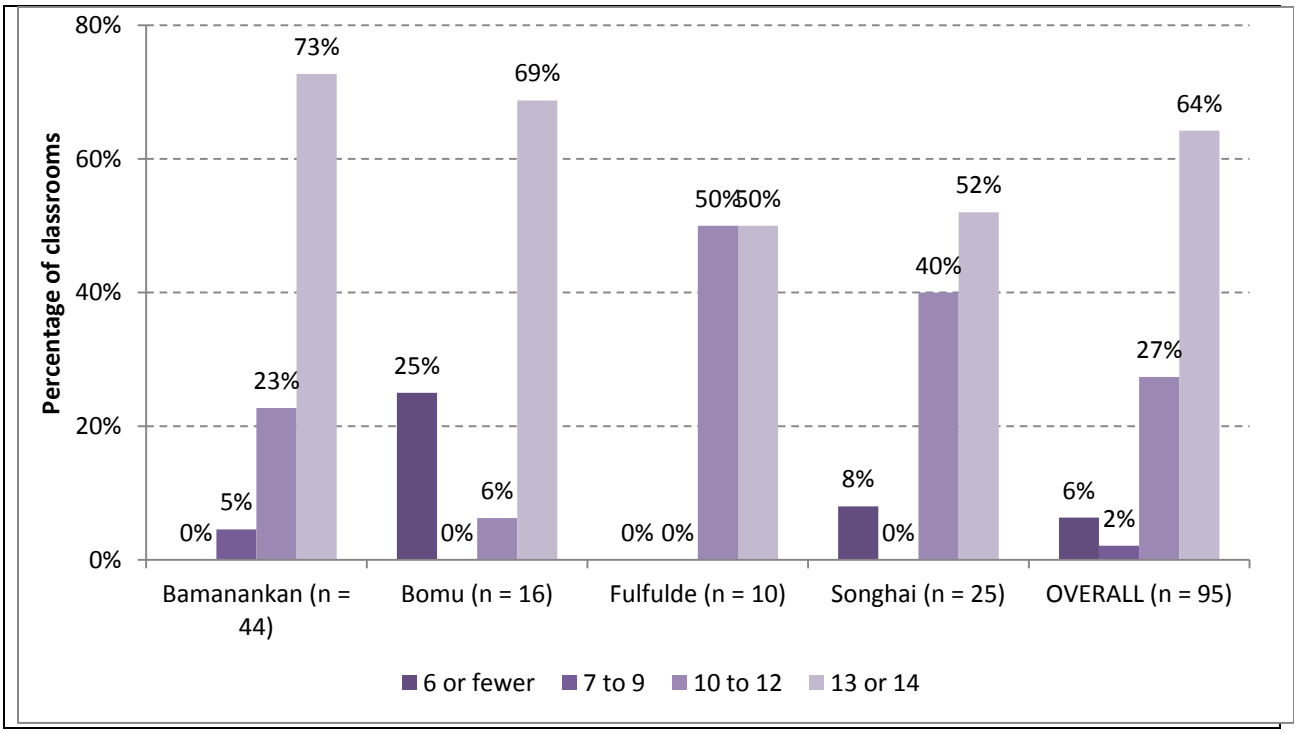
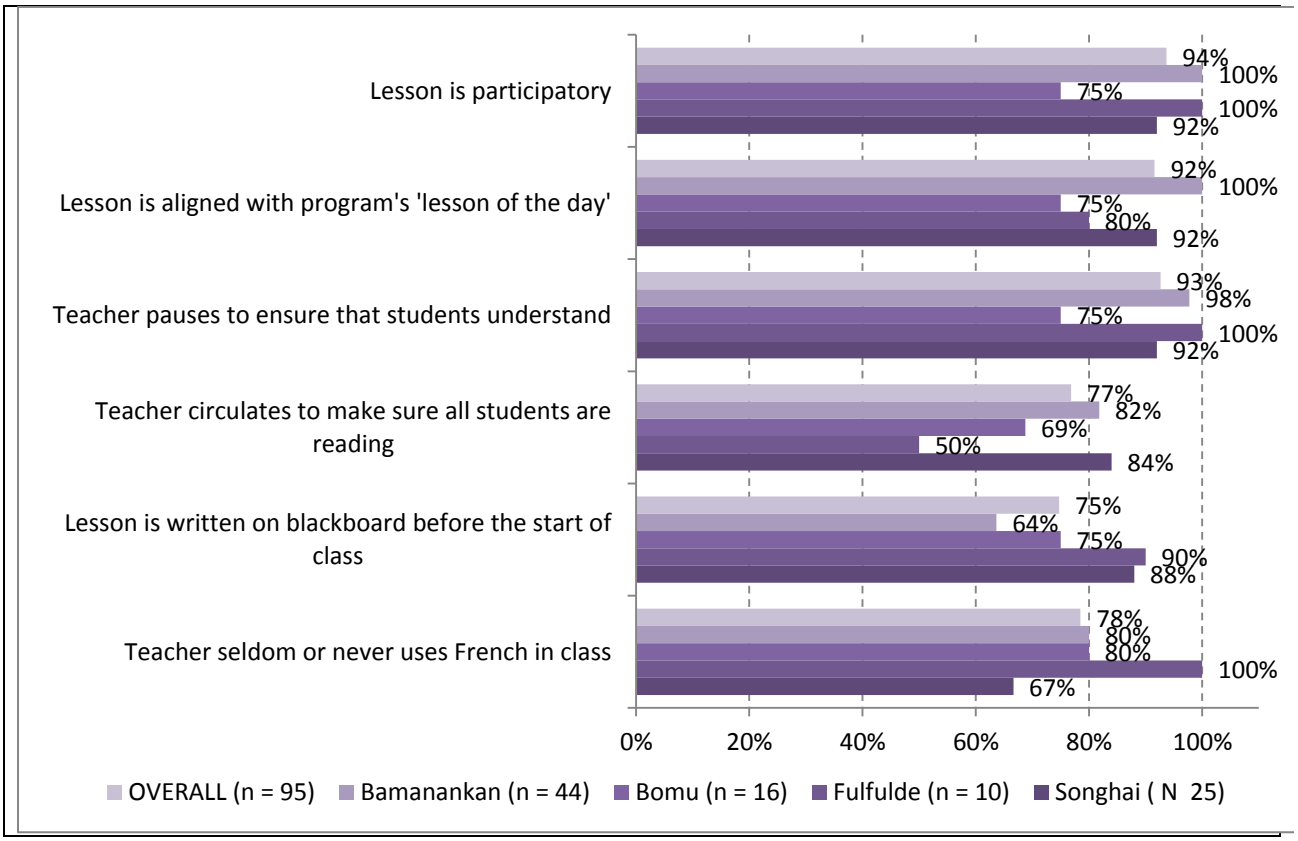


Figure 24 presents a subset of these 14 generally recognized "good classroom practices," as well as the specific practice of limiting the use of French in class, and the proportions of RLL classrooms in which the teacher was observed to use each practice in the course of a reading lesson.

Figure 24. Variability in RLL teachers' instructional practices by school's official language of instruction, 2011



Lessons were found to be participatory and aligned with the Curriculum program "lesson of the day," and teachers paused in the course of the lesson in over 90% of RLL classrooms overall and in nearly all Bamanankan classrooms. All of these practices were relatively less evident in Bomu classrooms in particular, however, with 25% of Bomu-language classroom teachers not found to employ a given practice among these. Twenty percent of Fulfulde-language classrooms were also not found to display alignment with the lesson of the day.

Circulating among the students, providing the lesson on the blackboard from the start of the class, and refraining from the use of French were also practices found in the majority of RLL classrooms. Still, over 20% of the RLL classrooms were not found to employ one or other of these. In only 50% of Fulfulde-language RLL classrooms were teachers found to circulate among the students as they read, while only 64% of Bamanankan-language classrooms provided the written lesson on the blackboard at the start of class. In other words, RLL teachers were not found to be using the full range of good classroom practices universally.

Looking more specifically at Grade 1 RLL classrooms and the seven steps of each RLL Book 1 lesson, we also find varying degrees of implementation by RLL Grade 1 teachers (Figure 25). Teachers in over half of all RLL classrooms were observed to employ all seven steps in the course of a lesson (notably 77% of teachers in Songhai-language classrooms), and over three-quarters displayed at least six steps, suggesting a strong degree of implementation. However, a majority (60%) of Fulfulde-language classrooms observed (although few in number) as well as

5% and 15% of Bamanankan- and Songhai-language classrooms, respectively, displayed no more than four of the seven steps, indicating that the approach was not mastered by all teachers.

Figure 25. Proportion of seven steps from RLL book 1 observed in RLL Grade 1 reading lesson, by school's official language of instruction, 2011

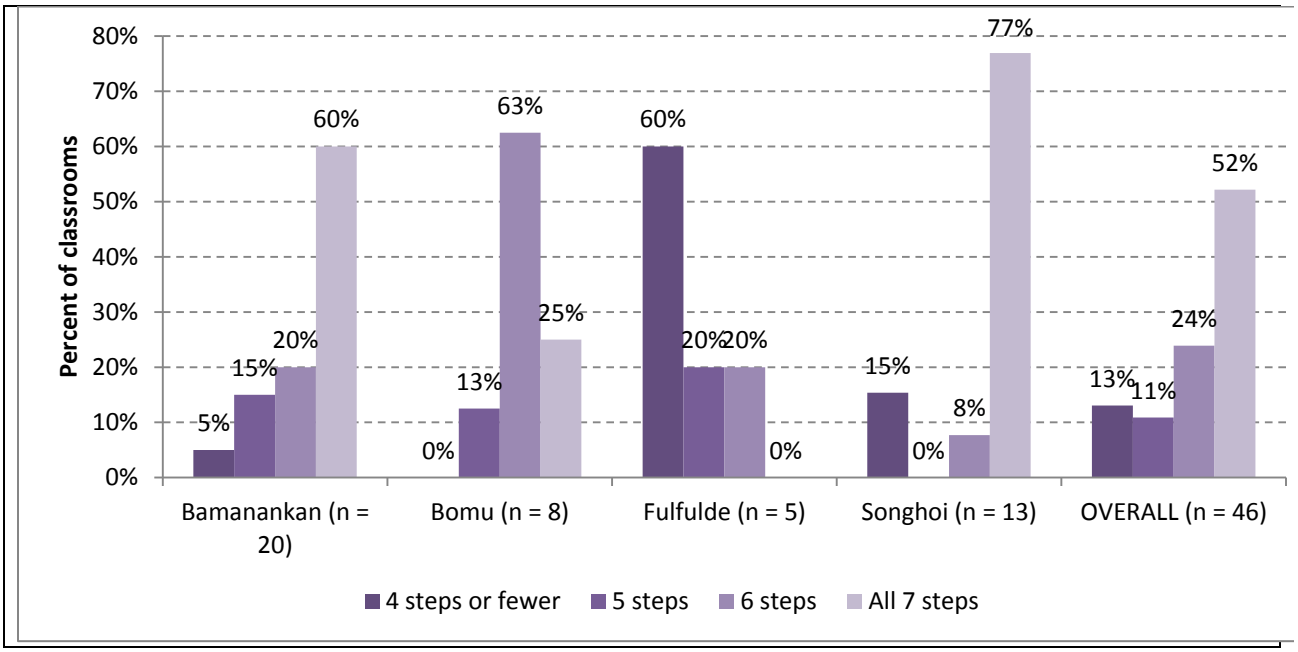
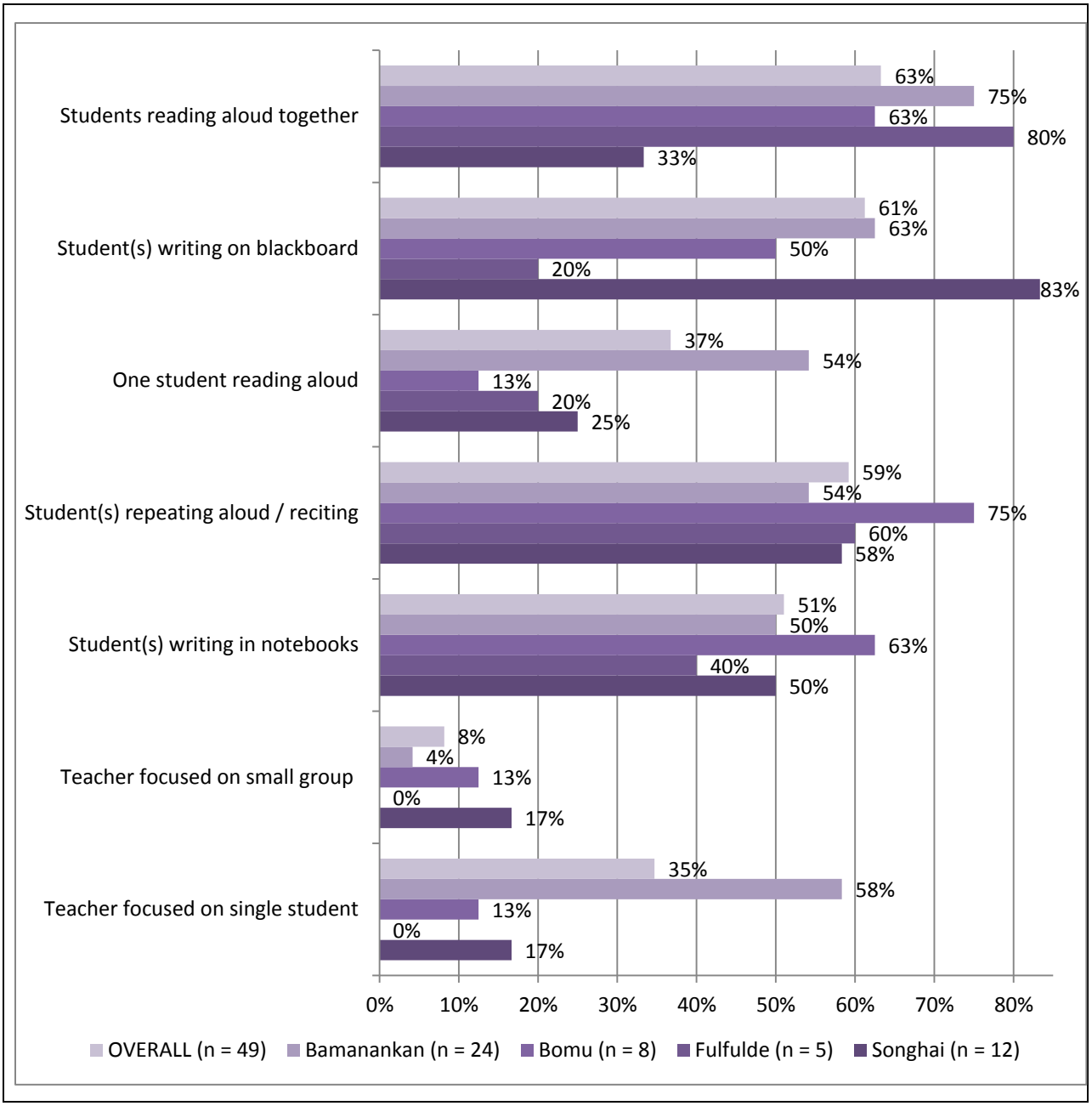


Figure 26 provides detail on variability in RLL Grade 2 teachers' use of student-centered activities. As seen in Section III.A.4 (Table 11), RLL classrooms surpassed Comparison classrooms overall in their use of student-centered activities, and particularly in the use of two of these activities ("Students reading aloud together" and "Teacher focused on a single student"), while Comparison classrooms significantly used the practice of "one student reading aloud" more often than RLL classrooms. Among RLL Grade 2 classrooms, in fact, there was wide variability in the use of nearly all of these activities, with the single exception of "Teacher focused on small group," which was evident in fewer than 8% of all RLL classrooms observed and ranged by language group only from 0% (Fulfulde-language classrooms) to 17% (Songhai-language classrooms). On all other practices, at least one-third of RLL classrooms overall were found to diverge from others in their use or non-use of a given practice overall, and language groups also appeared to differ considerably (with spreads of over 20 percentage-point differences) in their use of a given practice.

Figure 26. Proportion of RLL Grade 2 classrooms displaying student-centered activities (in at least 10% of observations made across a single lesson), by school's official language of instruction, 2011



In summary, the data on teaching practices in RLL classrooms display considerable heterogeneity in the types of practices teachers are using. In other words, even if RLL teachers on the whole are using more practices and activities that are generally regarded as effective and student centered, and more RLL-specific activities, many RLL teachers are not yet employing them. As with teacher training, pedagogical support, and material inputs, RLL classrooms varied considerably in their use of RLL-supported teaching practices well into the second year of the program.

IV. Summary of findings, conclusions, and recommendations

A. Summary of findings

While similar to their Comparison counterparts on many background characteristics, RLL principals were much more likely to have received RLL training than Comparison school principals and to report having trained teachers on Curriculum program methods at 2011. While the proportion in Comparison schools had declined over the years, it increased dramatically in RLL treatment schools, supporting the conclusion that RLL involvement encouraged this role. Teachers in RLL and Comparison schools were also similar on nearly all general pedagogical background and support variables, although the frequency of classroom observation showed considerable range, with Grade 2 RLL teachers reporting statistically more frequent visits from observers than Comparison school teachers.

On their preparation for national language instruction specifically, Comparison-school teachers in both Grade 1 and Grade 2 were less likely than their RLL peers to report having received any training in 2011, whereas the two groups had been equivalent on this measure in 2010. Overall, the proportion reporting such training decreased slightly between 2010 and 2011 for both RLL and Comparison groups and both grade levels, but the decline was greater in Comparison classrooms. Teachers in RLL classrooms were more likely to be teaching in their own maternal language than those in Comparison classrooms, although reading skills in the language of instruction were significantly different only for Grade 2 teachers, among whom RLL teachers displayed significantly higher performance overall than their Comparison counterparts.

On instructional materials provision, similar proportions of Grade 1 and Grade 2 teachers in RLL and Comparison schools reported receiving materials from the Ministry for teaching in national languages, although proportions were strikingly low (nowhere more than 58%) for a distribution intended to reach all Curriculum schools. These proportions had not changed significantly since baseline for any group, whether Grade 1 or Grade 2, RLL or Comparison. By 2011 however, RLL classrooms were found to be better equipped than Comparison classrooms on most other measures of material inputs in national languages. RLL students were more likely than Comparison students to have the national language schoolbook; we found increasing scarcity of the schoolbook over time for Grade 1 Comparison classrooms and a solid and increasing advantage of RLL Grade 2 classrooms on this indicator over time. Wall displays and teacher-made materials in the language of instruction were also significantly more available in RLL than Comparison classrooms, in both grade levels. Both RLL and Comparison Grade 1 and Grade 2 groups displayed increases from 2010 to 2011 in the proportion of classrooms in which over 75% of students have chalk and slate. Only Grade 1 RLL classrooms show a significant increase, however, contributing to their significant advantage over Grade 1 Comparison classrooms on this indicator at 2011.

In terms of their use of generally recognized “good” classroom practices for early grade learning, the study found that RLL and Comparison classrooms did not display many significant differences. In most cases at least 70% of teachers—whether RLL or Comparison—were observed to display a given practice. RLL teachers were more likely to refrain from speaking

French than their Comparison school counterparts, but the difference is significant only for Grade 1. RLL teachers in both Grade levels were more likely than Comparison teachers to circulate among the students in the course of the reading lesson, even though physical space of Grade 2 classrooms was judged by observers to be less well-organized for learning in RLL than in Comparison school classrooms. On 14 general good classroom practices examined, the proportion of observed practices overall was significantly higher in RLL than Comparison classrooms for Grade 1 only. The examination of change over time in general good classroom practices presents a pattern of improvement (increase) overall in most practices for both RLL and Comparison classrooms, a few instances of decline, and some interesting Grade-specific variations. With a few exceptions, the result is that the RLL advantage found in several practices in 2010 has dissipated by 2011, suggesting a tendency for RLL teachers to relax in the use of these practices, even as their Comparison peers increasingly adopt some of them.

With regard to student engagement and student-centered activities, in both grade levels, children in RLL classrooms were more likely to come to class with chalk and slate than in Comparison classrooms. RLL classroom teachers were more likely to employ active group reading aloud and to work with individual students, whereas Comparison classroom teachers favored individualized student oral reading and group repetition and reciting. Overall, RLL classroom teachers were found to use more child-centered activities in general than their Comparison counterparts in 2011, whereas the two groups had not differed significantly on these measures at baseline. From 2009 to 2011, RLL Grade 2 classrooms were significantly more likely to engage students in reading aloud together for a greater proportion of the lesson, whereas Grade 2 Comparison classrooms declined slightly in this activity. RLL Grade 2 teachers were also significantly more likely to spend a greater proportion of lesson time on students writing at the blackboard in 2011 than in 2009, although the differences between RLL and Comparison classrooms were not significant in either year. The proportion of classroom activities in which students were repeating aloud or reciting increased significantly from 2009 to 2011 for both RLL and Comparison classrooms, whereas on measures reflecting teacher focus on small groups and activities with individual students, both RLL and Comparison classrooms declined significantly.

Classroom observers in 2011 also looked for evidence of whether Grade 1 teachers were making use of specific practices consistent with the RLL program's seven-step process for a given reading lesson. While these practices were far from absent in Comparison schools, RLL classrooms were, not unexpectedly, more likely to display most of the practices relating to the formal steps of an RLL reading lesson.

Regarding coverage of program inputs and variability in practices observed across RLL schools, the data overall present a relatively good proportion of school principal and teacher training, although 20% of RLL school principals reported that they had not participated in any IEP/RLL training, and only 76% of RLL teachers reported that they had participated specifically in IEP's training on the RLL approach, with teachers in Fulfulde-language RLL schools particularly disadvantaged on this measure and on their own reading skills in language of instruction. Fulfulde-language classrooms were also less likely to be provisioned with the Ministry textbook, as well as with IEP/RLL reading materials for teachers and students, while other RLL schools were relatively well-supplied with the latter. The study team was unable to find a single type of material in the language of instruction, even teacher-made, in 16 RLL classrooms.

Turning to variability of teacher instructional practice observed in RLL classrooms, over 90% of teachers in Bamanankan-, Fulfulde-, and Songhai-language classrooms were found to display at least 10 of the 14 practices, compared with 75% of teachers in Bomu-language classrooms. As for the seven steps of an RLL Book 1 lesson, teachers in over half of all RLL Grade 1 classrooms (and 77% of teachers in Songhai-language classrooms) were observed to employ all seven steps in the course of a lesson, and over three-quarters displayed at least six steps. However, a majority (60%) of Fulfulde-language classrooms observed (although few in number) as well as 5% and 15% of Bamanankan- and Songhai-language classrooms, respectively, displayed no more than four of the seven steps in the course of a full lesson. In RLL Grade 2 classrooms, wide variability was found in the use of nearly all of student-centered activities observed, with the single exception of "Teacher focused on small group," seldom observed across all RLL classrooms. Fewer than 8% of all RLL classrooms observed displayed this practice. On all other practices, at least one-third of RLL classrooms overall were found to diverge from others in their use or non-use of a given practice, and language groups also appeared to differ considerably. In summary, the data on teaching practices in RLL classrooms display considerable heterogeneity in the types of practices teachers are using.

B. Conclusions and recommendations

By the second year of the RLL program's extension to 210 schools and Bomu, Fulfulde, and Songhai languages, the study team found several areas where RLL schools had clearly advanced relative to their Comparison school counterparts. The RLL program has been considerably more effective than "business as usual" in Malian Curriculum schools, in reaching teachers and school principals with training in national language reading instruction, and in making sure a range of materials in the language of instruction were available to teachers and students in schools. In addition, these inputs appear to have translated into greater use by RLL teachers than their Comparison counterparts, of certain specific, student- and reading-centered instructional practices supported by RLL, and in turn, to the higher reading scores of children that were evident by the end of the first year of the program.

The results suggest that RLL has played an important role in shoring up the Curriculum program's preparation of school principals and teachers to carry out national language reading instruction, and ensuring that schools, teachers, and students have the necessary material inputs to support this instruction. The data suggest that RLL has effectively contributed to ensuring that Grade 2 classrooms and students are supplied with Government national language schoolbooks, even as Comparison schools and RLL Grade 1 classrooms remained at a low level of supply. In different ways at Grade 1 and Grade 2, the RLL program over time appears to be having a positive effect on students' material environment for learning, encouraging families and Government to provide needed inputs, above and beyond the specific inputs made directly by RLL.

At the same time, the examination of observed and reported classroom instructional practices and student engagement over time gives a more nuanced picture. Positive inputs and good practices were not entirely absent from Comparison schools, nor were they universally present in RLL schools. Comparison classrooms were found to display changed, often improved, practices by 2011, almost as often as RLL classrooms. In addition, RLL classrooms were found to display some areas of slippage from good practice between 2010 and 2011, such that some of the

apparent benefits of RLL participation found in 2010 were no longer evident in 2011. Even with the important contributions made by RLL and other sources, including individual teachers, a substantial number of RLL classrooms remained lacking in the most basic instructional materials.

The RLL "Learn to Read' results set has undoubtedly made a difference in Curriculum schools and classrooms, for the most part, with more resources, teacher training, and support that have translated into many better practices by year two of the study. The results indicate that vigilance is needed to ensure that all schools in the program are receiving these benefits, however, and that gains made in the first year do not slip over time.

With these overall promising findings for RLL's "Learn to Read" results set, the resources required to ensure full implementation and to plan for further extension and maintenance of the program bear examination. A cost analysis of key "Learn to Read" elements, also a part of the broader evaluation study (forthcoming), will help to address this question.

In addition, the 2012 endline results (also forthcoming) should permit us to confirm or correct the preliminary conclusions of this report. Endline findings will also help us to determine whether the program in its third year of implementation has been able to sustain or even improve on children's reading advantage noted in 2010, and to resolve the shortcomings of coverage noted here, particularly in Bomu- and Fulfulde-language schools.

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List of Attachments

Attachment 1. Detail on the full evaluation study sample

The RCT sample design for the evaluation was developed in close consultation with RLL program implementer IEP. IEP had developed and applied the RLL approach in a first cohort of schools in the Bamanankan language zone in the 2007-2009 period and planned its extension to a second cohort in this same zone and in three other geographic and linguistic zones. Schools eligible for participation in RLL's second cohort, numbering 136 total schools across seven CAPs (pedagogical support jurisdictions) constitute the population of interest for the purposes of this study.

The eligibility requirements for schools to be considered for participation in the IEP program's second cohort (cohort of focus for this study) were as follows:

- Eligible schools must be teaching in Grades 1 and 2 in one of the four national languages of interest (Bamanankan, Fulfulde, Songhai, Bomu).
- Eligible schools must be either public schools or community schools.
- Eligible schools can be drawn from both urban and rural environments.
- Eligible schools have not been previously supported by IEP.
- Eligible schools must be reasonably accessible (as determined by IEP in cooperation with local district officials)
- Eligible schools must not be one-teacher schools.

IEP worked together with local district officials and Ministry of Education data to compile a list of RLL-eligible schools in the seven target CAPs (see Table A1.1).

Table A1.1. Number of RLL-eligible schools by CAP and language in seven RLL CAPs

CAP	Language	Eligible Schools
Torokorobougou	Bamanankan	5
Kati	Bamanankan	36
Ségou	Bamanankan	17
Total eligible Bamanankan-language schools		58
Tominian	Bomu	23
Sévaré; Mopti	Fulfulde	24
Gao	Songhai	31
Total eligible "Other" language schools		78

With the list of eligible schools established, the evaluation study team proceeded to the randomized selection and assignment of schools into RLL treatment and Comparison groups for the study period.

The sample structure called for two language groups: Bamanankan and "Other" (Bomu, Fulfulde, and Songhai). While there would have been some utility to examining each of the four languages separately, there were two significant constraining factors. First, because many fewer eligible schools use these languages compared to Bamanankan in the selected CAPs, it would have been impossible to ensure a large enough sample for each language. Second, while enough schools might be found by extending the search to additional CAPs, doing so would have required major changes to IEP's own roll-out plan and would have increased the study sample to a size and with a geographic spread that would have been cost-prohibitive. Because the evaluation's second research goal is to establish whether the program is effective in both the majority national language (Bamanankan) and in other languages, we determined that focusing on the three non-majority languages as one group would still allow us to address this goal.

To eliminate the threat of unobserved selection bias, the principle of random initial selection into intervention and Comparison groups was applied. From the total pool of eligible schools in each language group (Bamanankan and Other), schools were randomly assigned into RLL treatment and Comparison groups in the study sample. This process provides the highest degree of assurance that intervention and Comparison groups have no systematic a priori differences, thereby removing many potential biases and threats to validity associated with the use of Comparison groups.

Systematic random selection was carried out using an interval to count down through the school list and assign schools to RLL treatment and Comparison groups. Separate draws were conducted for Bamanankan-language schools and Other language schools. Within the Other language group, representation of the three languages (Bomu, Fulfulde, or Songhai) among the sampled schools is roughly proportional to the distribution of all eligible schools that use one of these languages, eliminating the need for post-hoc finite population correction by language within this group.

The target sample size for baseline data collection was set at 26 schools in each of the four treatment-language sub-groups. In the 2010 follow-up year, a randomly drawn sub-sample of 20 schools from each group was selected as a cost-management measure, with return to the full original sample for the 2011 follow-up collection.

Table A1.2 shows the number of schools in the evaluation sample, by language group and treatment group, and the evolution of this sample through the 2011.

Table A1.2. Final RLL Evaluation Sample of Schools

GROUP	2009 Baseline	2010 Follow-up	2011 Follow-up
Bamanankan Language *CAPs: Torokorobougou, Kati, Fana*			
RLL	25	20	25
Comparison	24[8]	20	24
Other Languages (Bomu, Fulfuldé, Songhai) *CAPs: Tominian, Mopti, Sévaré, Gao*			
RLL	26	20	26
Comparison	26	20	26
Total Number of Schools Surveyed			
RLL	51	40	51
Comparison	50	40	50

Within selected schools, 17 children in each of three grade levels (Grade 1, Grade 2, and Grade 3) were randomly selected to participate in baseline student reading assessments. In addition, the school principal and all teachers from each of these grade levels were to be surveyed during the baseline data collection. If fewer than 17 children were present in a given grade level, teams were instructed to test all students present.[9]

In the 2010 follow-up data collection, in addition to the school principal survey, teacher and student surveys and assessments were limited to Grades 1 and 2 only; Grade 3 teachers and students were not canvassed. To compensate for the reduced sample of schools (from 25 to 20 in each Comparison sub-group), the number of students per grade selected randomly to participate in the reading assessment was increased to 20 (from 17).

The 2011 follow-up returned to the full 2009 baseline sample of 101 schools. In 2011, our objective was to gather additional contextual information on schools, school principals, and Grade 1 and Grade 2 teachers, including classroom observation for RLL fidelity and the direct assessment of teachers' own reading skills in the national language in which they taught. No students were assessed in the 2011 data collection round.

Table A1.3 shows the number of students assessed on reading skills at 2009 baseline and at 2010 follow-up evaluation year.

[8] During baseline data collection, one comparison school formally listed as using Bamanankan language for instruction was discovered to be using French-language instruction and was therefore eliminated from the sample, resulting in a sample size of 24.

[9] In the special case of Grade 2 students in non-Bamanankan schools, the number of students selected sometimes reached as many as 20 or 22 in schools that were also part of a broad one-off assessment study that targeted 20 Grade 2 learners per school, as baseline data collection in them was combined with that effort.

Table A1.3. RLL evaluation baseline and 2010 follow-up samples of students by grade

Language Group	2009 Baseline			2010 Follow-up	
	Grade 1	Grade 2	Grade 3	Grade 1	Grade 2
Bamanankan Language					
RLL	427	419	421	382	377
Comparison	407	414	407	399	400
Other Languages (Bomu, Fulfuldé, Songhai)					
RLL	438	538	445	388	368
Comparison	419	523	449	389	365
Total Number of Students Surveyed					
RLL	865	957	866	770	745
Comparison	826	937	856	788	765
Total	1,691	1,894	1,722	1,558	1,510

The numbers in these tables represent independently selected samples of students across the 2009 and 2010 evaluation years. All schools sampled in 2010 were drawn from among the baseline sample, however, such that many students are likely to have participated in both student samples.

Attachment 2. Full evaluation study data collection methods and instruments

Data collection for the RLL evaluation involved direct student and teacher assessments of reading and language skills; individually administered survey questionnaires for school principals, teachers, and students; and classroom/lesson observation protocols. The evaluation team developed and tested the survey, teacher assessment, and observation instruments specifically for the purposes of this study, taking into consideration RLL instructional methods and approaches. The student assessments were adapted from existing Early Grade Reading Assessment (EGRA) materials. The EGRA-Mali assessments and teacher reading assessments are available upon request; principal and teacher survey forms and classroom observation instruments are provided in Attachment 3.

A. Recruitment, training, and deployment of data collection teams

Data collection agents and supervisors fluent in each of the four languages of the study were recruited from among Ministry of Education staff and NGO-sector agents with prior assessment and survey fieldwork experience. These personnel were trained on the instruments and administrative aspects of fieldwork in a five-day workshop immediately prior to each data collection phase. During training, trainees had multiple opportunities to practice with each data collection instrument (see Section B below). Team members who had participated in instrument development assisted with supervision of the training process. Trainees' skills in EGRA administration and classroom observation protocols were assessed using an iterative inter-rater reliability process, in which multiple observers observed the same lesson and then their completed protocols were compared. Any items that had discrepancies were reviewed to ensure that observers had a common understanding of how to mark each item.

Data collectors were deployed in teams of three enumerators, with each team responsible for collecting all data required from a given school in two days (2009 baseline and 2010 follow-up) or during a single school day (2011 follow-up, without student-level data collections). Supervisors had primary responsibility for teams' adherence to sampling instructions and for the proper paper-based organization and logging of completed instrument forms. They also conducted daily observations in study sites and spot-check reviews of forms completed to ensure a degree of quality control.

The 2009 baseline data collection was carried out between April 20 and May 10, 2009. Fieldwork was combined with data collection for a separate Hewlett Foundation-funded study, with many teams collecting data for both studies. At total of 10 teams, with four members each (three enumerators and one supervisor), collected data for the RLL evalauation alone or for the evaluation and the concurrent Hewlett Foundation study.

The 2010 follow-up data collection was carried out in two sub-stages. Surveys, teacher assessment instruments, and classroom observations were carried out by 24 enumerators and 12 supervisors between April 19 and May 5, 2010. Student reading assessments were carried out by 30 enumerators and 10 supervisors between May 13 and 28, 2010.

The 2011 follow-up data collection (which did not entail student assessment) mobilized 20 enumerators and 10 supervisors, between February 28 and March 19, 2011.

B. Data collection instruments

The various instruments developed for the purposes of the RLL evaluation are available in Attachment 3. They were as follows:

Early Grade Reading Assessment (EGRA) in four national languages. The EGRA instrument contains a series of individually administered protocols designed to assess performance on discrete skills that constitute key building blocks of reading (knowledge of print conventions; phonemic awareness, letter recognition, sight word recognition, word decoding, reading fluency, and comprehension (Gove & Wetterberg, 2011). Following standard EGRA protocols for instrument development (See www.eddataglobal.com for more information), the study team with Malian language specialists developed instruments in each of the four languages (Bamanankan, Bomu, Songhai, and Fulfulde). Pilot results indicated moderate to high internal consistency across instrument sections, with "orientation to print" and "oral comprehension" representing outliers. When these two subtests were included in the calculation, coefficient alphas were modest, ranging from 0.529 for Bomu language to 0.72 for Bamanankan and Songhai languages. When excluded, alphas increased to 0.74 for Bomu and over 0.85 for the other three languages, indicating a strong internal consistency across the remaining subtests. This finding makes sense, given that the two "outlier" subtests represent broad "peri-reading" skills, whereas the six subtests showing high internal consistency, represent more detailed skills of early reading, involving sound parsing and letter, word, and text-level symbol recognition.

The EGRA instruments were implemented with students in Grades 1, 2, and 3 at baseline in May- June 2009, and again with Grade 1 and Grade 2 students in the subsample of 80 schools during the May/June 2010 follow-up. Overall inter-rater reliability obtained on EGRA instruments among enumerators retained after training averaged over 90%.

Teacher Survey/Interview Protocol. An initial version of this instrument, adapted for the Malian context from the Snapshot of School Management Effectiveness (SSME)[10], was applied at baseline in May/June 2009 to gather basic information on teachers' background characteristics, reported practices, available resources in the classroom, and points of view on teaching and learning. The instrument adaptation and refinement process, including piloting, was led by the evaluation study team together with a local education research specialist. It also involved researchers selected from among those who had previously participated in EGRA data collection.

A revised version, incorporating items specific to the RLL program (such as regarding the delivery of RLL materials, training, and follow-up visits to RLL schools, or the equivalent in Comparison schools), was produced and applied during the 2010 follow-up, in April 2010. This

[10] SSME, a school survey developed by RTI with EdData 2 (USAID) funding. See www.eddataglobal.com for more information.

2010 version, with further modest modifications in the formulation of some questions, was again applied in March 2011.

Classroom Observation Protocols. Classroom observation protocols were used in all three years of the study, with some variations by study year and grade level, as shown in Table A2.1.

Table A2.1. Summary of Classroom observation protocols

INSTRUMENT	2009 Baseline	2010 Follow-up	2011 Follow-up
A. "Flash" timed observation across five instructional dimensions	36 elements tracked across 15 three-minute intervals, conducted with both Grade 1 and Grade 2, (pre)RLL and Comparison classrooms.	—	Slight update of 2009 instrument, increased to 16 three-minute intervals, conducted with Grade 2 RLL and Comparison classrooms only.
B1. Checklist of general teaching and learning practices and classroom	—	Conducted in both Grade 1 and Grade 2, RLL (19 points) and Comparison (18 points) classrooms.	Conducted in both Grade 1 and Grade 2, RLL and Comparison classrooms (18 points).
B2. Checklist of fidelity to RLL lesson-specific practices	—	Conducted with both Grade 1 and Grade 2, RLL (25 points) and Comparison (20 points) classrooms.	Conducted in Grade 1 RLL (30 points) and Comparison (28 points) classrooms only.
C. Observation register on classroom physical organization and materials available by language	—	—	Conducted in both Grade 1 and Grade 2, RLL and Comparison classrooms (10 items).

The "Flash" observation (instrument A) was employed with a subset of Grade 1 and Grade 2 classrooms in RLL and Comparison schools at baseline in 2009, and again with the full Grade 2 sample during the 2011 follow-up data collection. This instrument, used during the observation of a complete reading lesson, involved timed "snapshot" paper-and-pencil recording at 3-minute intervals of a series of behaviors across five dimensions (teacher focus, teacher action, student action, lesson content, and instructional material support). The 2009 "Flash" instrument was accompanied by pre- and post-observation narrative notes against a series of questions.

Instruments B1 and B2, structured in a simpler yes-no checklist format, were used during the observation of a complete reading lesson. Checklist B1 covered observation of a variety of classroom features and good practice student and teacher behaviors, for both grade levels at 2010 and 2011 follow-up collections.

Checklist B2 provides more specific information on fidelity (or similarity in the case of Comparison schools) with regard to the RLL-prescribed lesson sequence for first-year learners. In the 2010 study year, the instrument was used in both Grades 1 and 2, as both grades in that year applied the Grade 1 lesson method. In the 2011 study year, the full instrument was used with Grade 1 classrooms only. Fidelity in this case refers to the degree to which teachers in RLL program schools are following the intervention methodology, as well as the degree to which teachers in Comparison schools may be using similar methodologies. This type of instrument offers a means of confirming whether designated "Treatment" and "Comparison" groups are indeed significantly different in terms of their exposure to and practice of the treatment of interest, since variation in a program's impact can be due to the degree of fidelity in implementation. The initial draft of this instrument was developed by the evaluation team's reading specialist, who observed both RLL and Comparison school classrooms and consulted with IEP and local education researchers so that the instrument would appropriately capture key features of the instructional program. The instrument was then reviewed, piloted and finalized by researchers selected from the original EGRA researcher group.

Finally, Instrument C was developed and used in both Grades 1 and 2 at 2011 follow-up to record information about the physical layout and organization of the classroom, and the availability of books and other reading instruction materials in the classroom by language.

While the instruments differed from one data collection year to the next, and between RLL and Comparison groups, a core of common elements offers the opportunity to explore whether and in what respects classroom practice was different across types of schools, or changing from one year to the next.

School Principal Survey/Interview Protocol. As with the Teacher Survey/Interview protocol, an initial version of this instrument was adapted from the SSME and applied at baseline in May/June 2009, to collect basic information on the school environment and resources, the school principal's background characteristics, practices, and points of view. A revised version, incorporating RLL-specific items was produced and applied for the 2010 follow-up, in April 2010. The 2010 version with some small modifications was again applied in March 2011.

The table below (Table A2.2) summarize the types of instruments employed over the years of the study, and the coverage of instruments achieved during each data collection.

Table A2.2. Types of data collection instruments used over the years of the study, with numbers of instruments completed or partially completed

TYPE OF INSTRUMENT	2009 Baseline	2010 Follow-up	2011 Follow-up
Student EGRA and survey	*Yes*	*Yes*	—
RLL - Bamanankan - G1	*427*	*382*	—
Comparison - Bamanankan - G1	*407*	*399*	—
RLL - Other languages - G1	*438*	*388*	—
Comparison - Other languages - G1	*419*	*389*	—

TYPE OF INSTRUMENT	2009 Baseline	2010 Follow-up	2011 Follow-up
RLL - Bamanankan - G2	*419*	*377*	—
Comparison - Bamanankan - G2	*414*	*400*	—
RLL - Other languages - G2	*538*	*368*	—
Comparison - Other languages - G2	*523*	*365*	—
RLL - Bamanankan - G3	*421*	—	—
Comparison - Bamanankan - G3	*407*	—	—
RLL - Other languages - G3	*445*	—	—
Comparison - Other languages - G3	*449*	—	—
Principal survey	*Version A*	*Version B*	*Revised Version B*
RLL - Bamanankan	18	20	25
Comparison - Bamanankan	20	20	24
RLL - Other languages	11	20	26
Comparison - Other languages	15	20	26
Teacher survey	*Version A*	*Version B*	*Revised Version B*
RLL - Bamanankan - G1	15	19	21
Comparison - Bamanankan - G1	16	19	24
RLL - Other languages - G1	9	20	25
Comparison - Other languages - G1	9	20	23
RLL - Bamanankan - G2	11	16	24
Comparison - Bamanankan - G2	14	19	23
RLL - Other languages - G2	7	15	22
Comparison - Other languages - G2	10	19	19
Classroom observation	*Instrument A*	*Instruments B1 and B2*	*Instruments B1 and C* *Instrument B2 (G1)* *Instrument A (G2)*
RLL - Bamanankan - G1	14	18	21
Comparison - Bamanankan - G1	17	19	24
RLL - Other languages - G1	10	21	26
Comparison - Other languages - G1	12	20	24
RLL - Bamanankan - G2	12	16	24
Comparison - Bamanankan - G2	14	19	24
RLL - Other languages - G2	9	14	25

TYPE OF INSTRUMENT	2009 Baseline	2010 Follow-up	2011 Follow-up
Comparison - Other languages - G2	12	18	25
Teacher national language reading assessment	—	—	*Yes*
RLL - Bamanankan - G1	—	—	21 (+1)*
Comparison - Bamanankan - G1	—	—	24 (+1)*
RLL - Other languages - G1	—	—	25 (+1)*
Comparison - Other languages - G1	—	—	19 (+3)*
RLL - Bamanankan - G2	—	—	23 (+1)*
Comparison - Bamanankan - G2	—	—	23 (+1)*
RLL - Other languages - G2	—	—	21 (+1)*
Comparison - Other languages - G2	—	—	19 (+3)*

* Numbers in parentheses represent teachers responsible for both Grades 1 and 2 (multigrade).

During the 2009 baseline year, some data collection errors led to unexpectedly low numbers of School Principal surveys (64 total, or 63% of expected surveys), Teacher surveys (91, or 47% of expected), and Classroom observations (100, or 49.5% of expected) recuperated. In addition, only 53 classrooms total in 2009 have both teacher surveys and classroom observations among the data collected, seriously reducing the power of analyses to examine the relationships between teachers' background and characteristics, and their teaching practices in the Baseline year, or between Baseline and subsequent years. Thus in the analyses that follow, the 2010 and 2011 follow-up collections are the principal sources for our analysis on teacher and principal surveys and classroom observation protocols, along with 2009 Baseline and 2010 follow-up student EGRA results, on which proportions of recuperated instruments relative to expected were quite satisfactory. Baseline classroom observation and survey material are used to provide illustrative though not statistically viable information for our purposes.

Attachment 3. 2011 Survey and Classroom Observation instruments

Attachment 3.1 2011 Teacher Survey / Interview protocol

Attachment 3.2 2011 School Principal Survey / Interview protocol

Attachment 3.3 2011 Classroom observation protocol

Evaluation IEP 2011

ENTRETIEN AVEC LE DIRECTEUR / LA DIRECTRICE

Code de l'entretien: ☐

D001	**NOM DU CAP**	_____
D002	**NOM DE L'ÉCOLE**	_____
D003	**CODE DE L'ÉCOLE**	☐☐☐☐☐☐☐☐☐
D004	Nom du passateur	_____
D005	Date de la passation	J J M M A A A A ☐☐ ☐☐ ☐☐☐☐
D006	Heure de la passation	☐☐ H ☐☐ Min
D007	Nom du Directeur / de la Directrice	_____
D008	[INDIQUEZ SI FEMME OU HOMME]	Femme ☐ 1 Homme ☐ 2
D009	Actuellement, cette école utilise quel système pédagogique (Curriculum / PC; Classique; Autre) ?	Curriculum / PC ☐ 1 Classique ☐ 2 Autre ☐ 3 Si "Autre", précisez: _____
D010	Ya t-il eu changement de système pédagogique utilisé dans cette école, ces 5 dernières années?	Non ☐ 0 Oui ☐ 1 Ne sait pas / Pas de réponse ☐ 99
D011	Si oui, pourquoi?	Expliquez: _____
D012	Dans cette école, l'enseignement de la lecture en 1ère et 2ème années, se fait en quelle(s) langue(s)? [COCHEZ TOUTES LES LANGUES CITÉS]	Bamanankan ☐ 1 Fulfulde ☐ 2 Songhoi ☐ 3 Bomu ☐ 4 Français ☐ 5
D013	Quelle est votre fonction au sein de l'école?	Directeur ☐ 1 Directeur Adjoint ☐ 2 Autre ☐ 3 Si "Autre", précisez: _____
D014	Vous êtes né(e) en quelle année?	**1 9** ☐☐
D015	Depuis combien d'années avez-vous commencé votre carriere d'enseignant?	Nombre d'année(s) ☐☐
D016	Avant de devenir directeur d'école, combien d'années avez-vous enseigne dans le systeme classique?	Nombre d'année(s) ☐☐
D017	Avant de devenir directeur d'école, pendant combien d'années avez-vous enseigné en langue nationale (PC ou curriculum)?	Nombre d'année(s) ☐☐

D018	Avant de devenir directeur d'école, pendant combien d'années avez-vous enseigné dans cette école?	Nombre d'année(s)	
D019	Depuis combien de temps avez-vous été nommé directeur (ou directeur adjoint)?	Nombre d'année(s)	
D020	Combien d'années avez-vous passé comme directeur d'école du systeme classique?	Nombre d'année(s)	
D021	Combien d'années avez-vous passé comme directeur d'école en langue nationale (PC ou curriculum)?	Nombre d'année(s)	
D022	Depuis combien de temps avez-vous été nommé directeur de cette école?	Nombre d'année(s)	
D023	Quel est votre diplôme académique le plus élevé?		
D024	[A QUEL NIVEAU CE DIPLÔME CORRESPOND-IL ?]	Inferieur au DEF	0
		Diplôme d'Etudes Fondamental	1
		DEF+2	2
		DEF+4	3
		Baccalauréat (BAC)	4
		BAC+2	5
		BAC+4	6
		Autre	7
		Refuse de répondre	99
D025	êtes-vous chargé de cours?	Non	0
		Oui	1
D026	[SI CHARGÉ DE COURS:] À hauteur de combien d'heures par semaine enseignez-vous?	Nombre d'heure(s) par semaine	
		Pas applicable, n'est pas charge d'une classe	88
D027	[SI CHARGÉ DE COURS:] Quelle classe enseignez-vous cette année?	1ère année	1
		2ème année	2
		3ème année	3
		4ème année	4
		5ème année	5
		6ème année	6
		Pas applicable	88
D028	Si un enseignant est absent, prenez-vous en charge sa classe pour la journée?	Non	0
		Oui	1
D029	Au cours du mois dernier, combien de jours avez-vous eu à vous absenter de l'école pour régler des affaires liées à vos fonctions ?	Nombre de jours	

			H	F
D030	Combien d'enseignants comptent votre école?	Nombre d'enseignants		
D031	Parmi ces enseignants, combien ont un diplome moins eleve que le votre?	Nombre d'enseignants		
D032	Parmi ces enseignants, combien ont moins d'experience d'enseignement que vous?	Nombre d'enseignants		
D033	Il y a combien de filles et de garçons dans cette école?	Effectif des filles		
		Effectif des garçons		
D034	Y a t-il eu des changements majeurs (à la hausse ou à la baisse) dans l'effectif d'élèves dans cette école, ces 5 dernières années?	Non		0
		Oui		1
		Ne sait pas / Pas de réponse		99
D035	Si oui, pourquoi?	Expliquez: _____		
D036	Quel est le niveau de classe le plus élevé dans l'école (y compris second cycle)?	Niveau de classe		
D037	S'il existe un second cycle dans votre école, dispose-t-il d'un directeur?	Non		0
		Oui		1
		Pas applicable		88
D038	Quel(s) sont les niveau(x) scolaires qui étudient en langue nationale cette année? [COCHEZ TOUTES LES CASES APPLICABLES]	1ère année		a
		2ème année		b
		3ème année		c
		4ème année		d
		5ème année		e
		6ème année		f
D039	Votre école fait-elle partie d'un groupe scolaire?	Non		0
		Oui		1
D040	Dans votre école, le recrutement est-il annuel ou tous les deux ans?	Annuel		1
		Tous les deux ans		2
D041	Les enseignants de cette école suivent-ils la même cohorte d'élèves pendant 6 ans?	Non		0
		Oui		1
D042	Il existe dans cette école cette année, combien de classes de 1ère, 2ème et 3ème années ? Citez le nbre pour chaque niveau.	1ère année - Nbre de classes:		a
		2ème année - Nbre de classes:		b
		3ème année - Nbre de classes:		c
D043	Votre école faisait-elle partie de la catégorie Pédagogie Convergente?	Non		0
		Oui		1
		Ne sait pas / Pas de réponse		99
D044	Si oui, en quelle année cela a-t-il débuté?	Année		
		Pas applicable		88

D045	En quelle année est-elle devenue curriculum?	Année ☐☐☐☐ Ne sait pas ☐ 99
D046	Cette année, les enseignants de cette école ont-ils suivi la formation curriculum du ministère de l'éducation?	Non ☐ 0 Oui ☐ 1
D047	Depuis que vous êtes directeur de cette école, combien d'années le CAP a-t-il organisé les formations requises des enseignants sur le programme Curriculum?	Nombre d'année(s) ☐☐
D048	Les enseignants dans votre école ont-ils suivi une formation du programme PHARE / "Approche équilibrée / EIR ?	Non ☐ 0 Oui ☐ 1 Ne sait pas / Pas de réponse ☐ 99
D049	Depuis que vous êtes directeur de cette école, combien d'années le CAP a-t-il organisé les formations requises pour les enseignants sur le programme Curriculum?	Nombre d'année(s) ☐☐
D050	Depuis le début de l'année scolaire, cette école a t-elle été fermée pour cause de grève?	Non ☐ 0 Oui ☐ 1
D051	[SI OUI,] Pendant combien de jours, environs? (Les estimations sont admissibles)	Nombre de jours ☐☐ Pas applicable, l'école n'a pas été fermée ☐ 88
D052	Depuis le début de l'année scolaire, l'école a-t-elle été fermée durant les jours ouvrables (à part les vacances scolaires), pour une autre raison?	Non ☐ 0 Oui ☐ 1
D053	[SI OUI,] Pendant combien de jours, environs? (Les estimations sont admissibles)	Nombre de jours ☐☐ Pas applicable, l'école n'a pas été fermée ☐ 88
D054	[SI OUI,] Pourquoi l'école était-elle fermée?	Explication: _____ _____
D055	Il y a combien d'enseignants pour les 1ère et 2ème années dans cette école (par genre)?	H F 1ère Année - Nombre d'enseignants ☐ ☐ 2ème Année - Nombre d'enseignants ☐ ☐
D056	Le mois dernier, combien de jours chaque enseignant (jusqu'à 6) **de 1ère ou de 2ème année** s'est-il absenté durant les jours ouvrables? [REMPLISSEZ AUTANT DE LIGNES QU'IL Y A ENSEIGNANTS DE 1EME ET DE 2EME]	Enseignant A - Nbre de jours d'absence ☐ Enseignant B - Nbre de jours d'absence ☐ Enseignant C - Nbre de jours d'absence ☐ Enseignant D - Nbre de jours d'absence ☐ Enseignant E - Nbre de jours d'absence ☐ Enseignant F - Nbre de jours d'absence ☐ INDIQUER LE NOMBRE DE JOURS D'ABSENCE POUR CHAQUE ENSEIGNANT

D057	Les éléves de première année restent à l'ecole combien de temps chaque jour? Est-ce: [LISEZ LES RÉPONSES A HAUTE VOIX, ET COCHEZ UNE SEULE RÉPONSE]	Le matin seulement, tous les jours L'après-midi seulement, tous les jours Toute la journée, sauf mercredi ou jeudi Toute la journée, sauf mercredi ET jeudi Toute la journée, tous les jours Autre Si "Autre", préciser: _____	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6
D058	Combien d'enseignants étaient absents hier (ou le jour ouvrable précédent)?	Nombre d'enseignant(s) absent(s) Ne sait pas / Pas de réponse	☐☐ ☐ 99
D059	Hier (ou le jour ouvrable précédent), combien d'enseignants sont arrivés après l'heure normal de début de la classe?	Nombre d'enseignant(s) en retard Ne sait pas / Pas de réponse	☐☐ ☐ 99
D060	Depuis le début de l'annee, y'a-t-il un enseignant qui était absent plus qu'une semaine?	Non Oui Ne sait pas / Pas de réponse	☐ 0 ☐ 1 ☐ 99
D061	[SI OUI] Combien des enseignants etaient absents plus qu'une semaine?	Nombre d'enseignants Ne sait pas / Pas de réponse Pas applicable (pas d'absences)	☐☐ ☐ 99 ☐ 88
D062	[S'IL Y A EU ABSENCE D'ENSEIGNANT(S)] En moyenne, pendant combien de jours d'absence pour un enseignant?	Nombre de jours d'absence Ne sait pas / Pas de réponse Pas applicable (pas d'absences)	☐☐ ☐ 99 ☐ 88
D063	Qui vise les cahiers de préparation des maitres de votre école?	Personne ne vise Directeur Directeur Adjoint Autre Si "Autre", préciser: _____	☐ 1 ☐ 2 ☐ 3 ☐ 4
D064	Avec quelle fréquence les cahiers sont-ils visés?	Jamais Une fois par an Une fois tous les 2-3 mois Une fois par mois Une fois toutes les 2 semaines Chaque semaine Chaque jour Autre Si "Autre", préciser: _____ Ne sait pas / Pas de réponse Pas applicable	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 99 ☐ 88
D065	En moyenne, combien de temps est consacré à viser la préparation d'un maitre (chaque fois)?	☐☐ minutes Pas applicable	☐ 88
D066	Comment jugez-vous les preparations des enseignants de 1ere et 2eme année dans votre école?	Elles sont très bonnes Elles sont bonnes mais pourraient etre ameliorées Elles ne sont pas bonnes La qualité des préparations varie par enseignant	☐ 1 ☐ 2 ☐ 3 ☐ 3

D067	Les enseignants de 1ere ou 2eme annee ont-ils des difficult'rs à mettre en application leurs préparations?	Non, personne n'a de difficulté	0
		Oui, un enseignant a des difficultés	1
		Deux ou plusieurs enseignants ont des difficultés	2
D068	En moyenne, un enseignant de 1ère ou de 2ème année passe combien de temps à préparer une journée de cours?	____ heures ____ minutes	
		Observations: _____	
D069	Dans cette école qui est chargé d'observer les classes?	Personne n'observe	1
		Le Directeur	2
		Le Directeur Adjoint	3
		Autre	4
		Si "Autre", préciser: _____	
D070	Sur une periode d'un mois combien de fois avez vous eu l'opportunité d'observer l'enseignement de chaque enseignant?	Jamais	1
		Une fois	2
		Deux fois	3
		Trois fois	4
		Quatre fois ou plus	5
		Autre	6
		Si "Autre", préciser: _____	
		Ne sait pas / Pas de réponse	99
		Pas applicable	88
D071	Au total, combien de classes avez-vous observées la semaine passée?	Nombre de classes	
		Pas applicable	88
D072	[SI PLUS DE "ZERO",] Combien de temps avez-vous passé à l'observation de classes la semaine passée?	__ heures __ minutes	
		Pas applicable	88
D073	Comment les enseignants reagissent-ils à vos observations de classe?	De manière positive (cooperative, réceptive)	1
		De manière parfois réticente	2
		Pas applicable	88
D074	Organisez-vous des réunions techniques ou conseils des maitres au moins une fois par trimestre?	Non	0
		Oui	1
D075	Comment faites-vous pour savoir si les élèves progressent? [NE PAS LIRE LES REPONSES POSSIBLES. SE CONTENTER DE COCHER LA CASE DE LA RÉPONSE DONNÉE]	Observation de la classe	1
		Evaluation régulière des élèves sur la base de tests donnés par l'enseignant	2
		J'évalue moi-même les élèves	3
		Correction des devoirs en classe et à la maison	4
		Les enseignants fournissent un rapport des progrès réalisés	5
		Autre	6
		Si "Autre", préciser: _____	
		Ne sait pas / Pas de réponse	99
D076	Votre école a t-elle reçu des livres scolaires en langue nationale?	Non	0
		Oui	1
		Ne sait pas / Pas de réponse	99

D077	[SI OUI,] A quel moment (mois et année) l'ecole a-t-elle reçu des livres scolaires en langue nationale?	*Mois* ☐ *Année* ☐	
		Pas applicable ☐	88
		Ne sait pas / Pas de réponse ☐	99
D078	[SI OUI A D076] Qui a fourni les livres scolaires en langue nationale?	Le Ministère ou le CAP ☐	1
		L'école (en se servant de fonds privés) ☐	2
		Les parents (de chaque enfant) ☐	3
		Le comité ou conseil de l'école ☐	4
		Autre ☐	5
		Si "Autre", préciser: _____	
		Ne sait pas / Pas de réponse ☐	99
D079	Qui vous soutient pour l'instruction en langue nationale?	Personne ☐	1
		Le Ministère ou CAP ☐	2
		Une ONG ☐	3
		Autre ☐	4
		Si "Autre", préciser: _____	
		Ne sait pas / Pas de réponse ☐	99
D080	Y aurait-il des services supplémentaires auxquels vous souhaiteriez avoir accès pour l'instruction en langue nationale? Si oui, dites lesquelles?	Non ☐	0
		Oui ☐	1
		Précisions:_____	
D081	Y-a-t'il une ONG qui apporte de l'aide a cette école? Si oui, laquelle / lesquelles ?	Non ☐	0
		Oui ☐	1
		Précisions:_____	
D082	A quelle frequence les membres du Comité / Conseil de gestion scolaire (CGE) se reunissent-ils?	Jamais ☐	1
		Une fois par an ☐	2
		Une fois tous les 2-3 mois ☐	3
		Une fois par mois ☐	4
		Une fois par semaine ☐	5
		Autre ☐	6
		Preciser: _____	
		Ne sait pas / Pas de réponse ☐	99
		Pas applicable ☐	88
D083	Pour quelles activités le CGS a-t-il autorité ou est-il responsable? [NE PAS LIRE LES REPONSES POSSIBLES. SE CONTENTER DE COCHER LES CASES DES RÉPONSES DONNÉES. PLUSIEURS RÉPONSES SONT POSSIBLES]	Discuter de la direction de l'école ☐	a
		Discuter des problèmes des élèves et apporter des solutions ☐	b
		Evaluer le progrès des projets d'amélioration de l'école ☐	c
		Evaluer la situation financière (budget) de l'école ☐	d
		Gérer les infrastructures et l'équipement ☐	e
		Discuter du programme scolaire ☐	f
		Collecter des fonds ☐	g
		Gérer l'approvisionnement et la distribution de livres scolaires ☐	h
		Construction ☐	i
		Autre ☐	j
		Si "Autre", préciser: _____	
		Ne sait pas / Pas de réponse ☐	99

D084	Y a-t-il une source d'eau potable accessible a l'école?	Non ☐ 0 Oui ☐ 1
D085	Y a-t-il des latrines praticables dans votre école?	Non ☐ 0 Oui ☐ 1
D086	Y a-t-il des latrines separées pour filles et garçons?	Non ☐ 0 Oui ☐ 1
D087	L'école a-t-elle de l'électricité?	Non ☐ 0 Oui ☐ 1
D088	L'école est-elle en ville (chef-lieu), dans un village, ou dans une zone péripherique de la ville ou du village?	En ville (Bamako ou autre chef lieu) ☐ 1 Dans un village ☐ 2 Dans la périphérie d'une ville / d'un village ☐ 3
D089	Quelle est la ville la plus proche? (Si l'école se situe en ville, indiquer le nom de la ville)	Ville: _____
D090	Combien de temps mettez-vous à pied pour atteindre la route bitumée la plus proche de l'école?	☐☐ heures ☐☐ minutes Pas applicable ☐ 88
D091	Combien y a-t-il de kilometres entre l'école et la route bitumée la plus proche?	☐☐☐ kilometres Pas applicable ☐ 88
D092	Combien de temps mettez-vous en voiture pour arriver à la ville (chef lieu) la plus proche?	☐☐ heures ☐☐ minutes Pas applicable ☐ 88
D093	Combien y a-t-il de kilometres entre l'ecole et la ville la plus proche?	☐☐☐ kilometres Pas applicable ☐ 88
D094	Pour venir à l'école, combien de temps à pied, prennent les enfants qui résident à l'endroit le plus éloigné de l'école?	☐☐ heures ☐☐ minutes Pas applicable ☐ 88
D095	Quelle pourcentage des élèves viennent des hameaux ou autres villages en dehors du village / du quartier de l'école?	% des apprenants ☐☐☐ % Ne sait pas / Pas de réponse ☐ 99
D096	Y a-t-il une école classique à proximité desservant les mêmes villages que votre école?	Non ☐ 0 Oui ☐ 1
D097	Depuis son premier jour en 1ère année, combien de temps (en nombre de mois) faut-il en moyenne pour qu'un élève de votre école soit capable de lire une phrase nouvelle sans aide?	Nombre de mois ☐☐ [SI LA RÉPONSE EST "MOINS D'UN MOIS", INDIQUER "1" (MOIS)]
D098	Depuis son premier jour en 1ère année, combien de temps (en nombre de mois) faut-il en moyenne pour qu'un élève de votre école soit capable de réaliser des opérations de calcul simple?	Nombre de mois ☐☐ [SI LA RÉPONSE EST "MOINS D'UN MOIS", INDIQUER "1" (MOIS)]

Certaines personnes sont assez pessimistes à propos de l'enseignement au Mali. Pensez-vous qu'ils ont tort ou raison s'ils disent:				
		Tort (1)	Raison (2)	Ni l'un ni l'autre (0)
D099	" Aucun système d'enseignement ne fonctionne bien au Mali "			
D100	" Les apprenants sont trop faibles au Mali "			
D101	"Les communautés / familles n'encouragent pas assez leurs enfants à l'école "			
D102	" Beaucoup d'enseignants ne sont pas assez motivés au Mali "			
D103	" Le système curriculum est moins performant que le système classique "			

D104	Quel systeme educatif avez-vous choisi (ou choisiriez-vous) pour votre plus jeune enfant (ou pour le prochain enfant)? Pourquoi?	Curriculum (Publique ou Communautaire)	1
		Classique Publique	2
		Privé	3
		Ecole Franco-Arabe	4
		Autre	5
		Si "Autre", préciser: _____	
		Explication: _____	
D105	Combien d'enseignants ont reçu une formation spécifique à l'enseignement en langue nationale pour leur niveau de classe?	Nombre d'enseignant(e)s	
D106	Qui a organisé cette formation? [POSSIBLE REPONSES MULTIPLES]	L'école	1
		Le CAP	2
		Autre	3
		Si "Autre", préciser: _____	
D107	Avez-vous recu ou recevez-vous une formation particulière ou des cours qui vous preparent à diriger une école?	Non	0
		Oui	1
		Ne sait pas / Pas de réponse	99
D108	[SI OUI,] Combien de temps dure, ou a duré cette formation? [INDIQUER LE NOMBRE DE JOURS, SEMAINES, OU MOIS SELON LA RÉPONSE DONNÉE]	jours	
		semaines	
		mois	
		Ne sait pas / Pas de réponse	99
		Pas applicable	88
D109	Qui vous a designé pour cette formation?	Mon CAP m'a invité	1
		J'ai pris l'initiative d'y aller	2
		Autre	3
		Si "Autre", préciser: _____	
		Pas applicable	88
D110	Avez-vous suivi une formation ou des cours vous préparant à l'application du programme scolaire en langue(s) nationale(s)?	Non	0
		Oui	1
		Ne sait pas / Pas de réponse	99

D111	[SI OUI,] Combien de temps dure ou a duré cette formation? [INDIQUER LE NOMBRE DE JOURS, SEMAINES, OU MOIS SELON LA RÉPONSE DONNÉE]	☐☐ jours ☐☐ semaines ☐☐ mois Ne sait pas / Pas de réponse ☐ 99 Pas applicable ☐ 88
D112	Qui a organisé cette formation?	CAP ☐ 1 ONG ☐ 2 Autre ☐ 3 Si "Autre", préciser: _____ Pas applicable ☐ 88
D113	Qui vous a designé pour cette formation?	Mon CAP m'a invité ☐ 1 J'ai pris l'initiative d'y aller ☐ 2 Autre ☐ 3 Si "Autre", préciser: _____ Pas applicable ☐ 88
D114	Avez-vous formé des enseignants à l'application du programme curriculum?	Non ☐ 0 Oui ☐ 1
D115	Avez-vous participé a une formation avec IEP?	Non ☐ 0 Oui ☐ 1
Les questions qui suivent doivent etre posées uniquement dans les écoles avec le programme RLL.		
D116	Combien de leçons du programme RLL ont été enseignées jusqu'à present cette année?	Nombre de leçons ☐☐
D117	Le materiel pedagogique du programme RLL vous semble-t-il adequat?	Non ☐ 0 Oui ☐ 1 Suggestions:_____
D118	Les formations fournies par IEP vous semblent-elles adequates?	oui ☐ 1 non ☐ 2 Suggestions:_____
D119	A quelle fréquence les membres de l'équipe IEP vous rend-elle visite?	jamais ☐ 0 moins d'une fois par trimestre ☐ 1 1 à 2 fois par trimestre ☐ 2 1 à 2 fois par mois ☐ 3 Plus de 2 fois par mois ☐ 4
D120	Faudrait-il plus de suivi, ou moins de suivi, par les agents IEP? Avez-vous des suggestions par rapport à ce suivi?	Plus ☐ 1 Moins ☐ 2 Suggestions:_____
	MERCI BEAUCOUP !	Heure d'achèvement de l'entretien : ☐ H ☐ min SIGNATURE DU PASSATEUR : _____

Evaluation IEP 2011

ENTRETIEN AVEC L'ENSEIGNANT

Code de l'entretien: ☐

M001	**NOM DU CAP**	
M002	**NOM DE L'ÉCOLE**	
M003	**CODE DE L'ÉCOLE**	☐☐☐☐☐☐☐☐☐
M004	Nom du passateur	
M005	Date de la passation	J J ☐☐ M M ☐☐ A A A A ☐☐☐☐
M006	Heure de la passation	☐☐ H ☐☐ Min
M007	[INDIQUEZ SI L'ENSEIGNANT EST UNE FEMME OU UN HOMME]	Femme ☐ 1 Homme ☐ 2
M008	[INDIQUEZ L'ENDROIT DE RENCONTRE AVEC L'ENSEIGNANT]	Dans la salle de classe ☐ 1 Dans la salle des profs ☐ 2 Sous un arbre ☐ 3 Ailleurs a l'école ☐ 4 Hors de l'école ☐ 5 Autre ☐ 6 Si "Autre", préciser:_____
M009	Nom de l'enseignant(e)	_____
M010	Vous enseignez quelle(s) classe(s) cette année? [SI MULTIGRADE, COCHEZ TOUTES LES CLASSES MENTIONNÉES]	1ère année ☐ 1 2ème année ☐ 2 3ème année ☐ 3 4ème année ☐ 4 5ème année ☐ 5 6ème année ☐ 6
M011	En quelle langue enseignez-vous dans votre classe cette année?	Bamanankan ☐ 1 Fulfulde ☐ 2 Songhoi ☐ 3 Bomu ☐ 4 Français ☐ 5
M012	Quelle est votre langue d'origine?	Bamanankan ☐ 1 Fulfulde ☐ 2 Songhoi ☐ 3 Bomu ☐ 4 Français ☐ 5 Autre ☐ 6 Si "Autre", préciser: _____
M013	Vous êtes né(e) en quelle année?	19 ☐☐ ☐☐
M014	Vous avez enseigné pendant combien d'années, y compris cette année?	Nombre d'année(s) ☐☐ ☐☐
M015	Dans votre classe, quelle approche utilisez-vous? (PC, classique, ou curriculum)	Classique ☐ 1 Curriculum ☐ 2 PC ☐ 3 Autre ☐ 4 Si "Autre", préciser: _____

M016	Vous avez enseigné dans le système classique (Français) pendant combien d'années?	Nombre d'année(s)
M017	Vous avez enseigné dans le système PC/Curriculum pendant combien d'années? [CETTE année INCLUSE]	Nombre d'année(s) en PC Nombre d'année(s) en Curriculum
M018	Vous avez enseigné dans cette école pendant combien d'années?	Nombre d'année(s)
M019	Dans combien d'écoles avez-vous enseigné avant d'arriver à cette école?	Nombre d'école(s) (ne pas inclure cette école)
M020	Pourquoi / Comment êtes-vous venu enseigner dans cette école?	J'ai desiré venir à cette école [ ] 1 Le CAP m'a envoye dans cette école [ ] 2 Autre [ ] 3 Si "Autre", préciser: _____
M021	Préciser le diplôme académique le plus élevé obtenu.	_____
M022	A quel niveau d'etude ce diplôme correspond-il?	Inferieur au Diplôme d'Études Fondamentales (DEF) [ ] 1 Diplôme d'Etudes Fondamentales (DEF) [ ] 2 DEF +2 [ ] 3 DEF +4 [ ] 4 Baccalauréat (BAC) [ ] 5 BAC +2 [ ] 6 BAC +4 [ ] 7 Autre [ ] 8 Pas de réponse [ ] 99
M023	Dans une semaine typique, au total, combien d'heures par semaine enseignez-vous par niveau? [NOTEZ LE NOMBRE D'HEURES PAR NIVEAU]	hrs 1ère année [ ] 1 2ème année [ ] 2 3ème année [ ] 3 4ème année [ ] 4 5ème année [ ] 5 6ème année [ ] 6 Autre [ ] 7 Si "Autre", préciser: _____
M024	En quel(s) niveau(x)/classe(s) avez-vous enseignez l'an passe? [NOTEZ LE NOMBRE DE CLASSES PAR année]	1ère année [ ] 1 2ème année [ ] 2 3ème année [ ] 3 4ème année [ ] 4 5ème année [ ] 5 6ème année [ ] 6 Autre [ ] 7 Si "Autre", préciser: _____
	Les questions qui suivent concernent uniquement les classes de 1ère et de 2ème années	
M025	Combien d'apprenants y a-t-il dans votre classe?	Nombre d'apprenants
M026	Combien d'apprenants sont-ils present aujourd'hui?	Nombre d'apprenants
M027	Combien de table-bancs utilisables y a-t-il dans votre classe, sur lesquels les enfants peuvent s'asseoir ?	Nombre de bancs

Les questions M028 - M032 sont à remplir PAR OBSERVATION EXCLUSIVEMENT - A ne pas demander à l'enseignant.			
M028	AU PASSATEUR: Confirmer (ou non) le nombre de table-bancs mentionné par l'enseignant.	Non - Je n'ai pas pu confirmer le nombre de table-bancs	0
		Oui - Mais le nombre de bancs mentionné est erronné	1
		Oui - Et je confirme le nombre mentionné par l'enseignant	2
		Nombre observé de tables-bancs:	
M029	AU PASSATEUR: Y a t-il des élèves assis par terre?	Non	0
		Oui	1
M030	AU PASSATEUR: Comment les bancs sont-ils organises dans la classe?	En rangee (organisation classique)	1
		En groupe(s) pour le travail collectif	2
M031	AU PASSATEUR: L'enseignant a-t-il suffisamment de place pour circuler entre les bancs?	Non	0
		Oui	1
M032	AU PASSATEUR: L'enseignant utilise-t-il les murs de la classe pour y afficher des fiches ou panneaux pedagogiques?	Les murs sont remplis de fiches/panneaux	1
		Il y a quelques fiches/panneaux	2
		Il n'y a pas de fiches/panneaux dans la salle	3
Les questions suivantes sont à demander directement à l'enseignant.			
M033	Dans votre classe, a quelle frequence enseignez-vous en Français (et non pas en langue nationale)?	Toujours en Français	1
		La plupart en Français	2
		La moitie en Français	3
		Un quart en Français	4
		Jamais en Français	5
M034	Pour l'enseignement de la lecture l'écriture, utilisez-vous conjointement la méthode syllabique avec le curriculum?	Non	0
		Oui	1
M035	Avez-vous reçu des livres scolaires fournis par le Ministère pour enseigner en langue nationale dans cette classe?	Oui, mais pas cette année	1
		Oui mais ils sont arrives en retard	2
		Oui, cette année	3
		Non	4
M036	Si oui, avez-vous reçu un livre de calcul en langue nationale?	Non	0
		Oui	1
		Si oui, préciser le nom du livre:_____	
		Pas applicable (il n'y a pas de livres)	88
M037	Si oui, avez-vous reçu un livre de lecture en langue nationale?	Non	0
		Oui	1
		Si oui, préciser le nom du livre:_____	
		Pas applicable (il n'y a pas de livres)	88
M038	Avec quelle fréquence utilisez-vous les livres scolaires fournis par le Ministère pour enseigner en langue nationale?	Jamais, je n'ai pas de livres	1
		Jamais, mais j'ai des livres	2
		Rarement	3
		Deux jours par semaine	4
		Tous les jours	5
		Ne sais pas/refuse de répondre	99
		Pas applicable (il n'y a pas de livres)	88
M039	[SI L'ENSEIGNANT UTILISE LES LIVRES SCOLAIRES DU MINISTÈRE] Les trouvez-vous inutiles, utiles, très utile?	Inutiles	1
		Utiles	2
		Très utiles	3
		Ne sais pas/refuse de répondre	99
		Pas applicable (il n'y a pas de livres)	88

M040	[SI L'ENSEIGNANT N'UTILISE PAS LES LIVRES SCOLAIRES DU MINISTÈRE] Pourquoi vous ne les utilisez pas?	Trop difficile pour mes élèves	1
		Trop facile pour mes élèves	2
		Autre	3
		Si "Autre", préciser: _____	
		Ne sais pas/refuse de répondre	99
		Pas applicable (il n'y a pas de livres)	88
M041	Combien d'élèves de votre classe disposent de livres scolaires en langue nationale?	Personne	1
		Moins de 25%	2
		Entre 25% et 50%	3
		Entre 50% et 75%	4
		Plus de 75%	5
		Tous	6
		Ne sait pas / Refuse de répondre	99
		Pas applicable (il n'y a pas de livres)	88
M042	Les enfants peuvent-ils emmener les livres a la maison?	Oui durant toute l'année	1
		Oui mais pas pendant les vacances ou les week-ends	2
		Oui mais seulement sur le temps de midi (les livres sont gardes a l'école le soir et les jours sans école)	3
		Jamais	4
		Autre	5
		Si "Autre", préciser: _____	
		Ne sait pas / Refuse de répondre	99
		Pas applicable (il n'y a pas des livres)	88
M043	Combien d'élèves de votre classe disposent de cahiers et d'ardoises/craies chaque jour?	Moins de 25%	1
		De 25% à 49%	2
		De 50% à 74%	3
		75% ou plus	4
		Ne sait pas / Refuse de répondre	99
M044	A qui vous adressez-vous lorsque vous souhaitez un éclaircissement ou avez une question spécifique à l'enseignement de la langue nationale?	Je n'ai jamais besoin d'aide	1
		Il n'y a personne pour m'aider	2
		Je demande à un autre enseignant	3
		Je demande au directeur	4
		Autre	5
		Si "Autre", préciser: _____	
M045	Combien de temps avez-vous passe a la preparation de cette journee de cours?	Zero	1
		De 1 à 30 minutes	2
		De 31 à 60 minutes	3
		De 61 à 120 minutes (2 heures)	4
		De 121 à 180 minutes (3 heures)	5
		Plus de 3 heures	6
M046	Avez-vous utilise les preparations de l'an passe ou d'un autre enseignant pour preparer cette journee de cours?	Non	0
		Oui	1
M047	A quelle fréquence échangez-vous avec d'autres enseignants sur des idées ou supports pédagogiques (par exemple, lors de la préparation des leçons) ?	Jamais	1
		Une fois par an	2
		Une fois tous les 2-3 mois	3
		Une fois par mois	4
		Une fois toutes les 2 semaines	5
		Chaque semaine	6
		Tous les jours	7
		Ne sait pas / Refuse de répondre	99

M048	Y-a t'il des volontaires / assistants dans votre classe pour vous aider à enseigner?	Non ☐ 0 Oui ☐ 1
M049	Y a t-il quelqu'un qui vise vos fiches de séquence ou votre cahier de préparation? [SI OUI,] qui la vise?	Personne ne les vise ☐ 1 Le Directeur ☐ 2 Le Directeur Adjoint ☐ 3 Autre ☐ 4 Si "Autre", préciser: _____
M050	A quelle fréquence votre préparation est-elle visée par quelqu'un d'autre?	Une fois par an ☐ 1 Une fois tous les 2-3 mois ☐ 2 Une fois par mois ☐ 3 Une fois toutes les 2 semaines ☐ 4 Chaque semaine ☐ 5 Tous les jours ☐ 6 Ne sait pas / Refuse de répondre ☐ 99 Pas applicable ☐ 88
M051	Y a t-il quelqu'un qui observe vos leçons? [SI OUI,] qui les observe (non compris staff IEP)?	Personne ne les observe ☐ 1 Directeur ☐ 2 Directeur Adjoint ☐ 3 Autre ☐ 4 Si "Autre", préciser: _____
M052	A quelle fréquence vos leçons sont-elles observées?	Une fois par an ☐ 1 Une fois tous les 2-3 mois ☐ 2 Une fois par mois ☐ 3 Une fois toutes les 2 semaines ☐ 4 Chaque semaine ☐ 5 Tous les jours ☐ 6 Ne sait pas / Refuse de répondre ☐ 99 Pas applicable ☐ 88
M053	Comment percevez-vous l'utilité de ces observations?	Pas utile ☐ 0 Assez utile ☐ 1 Très utile ☐ 2 Ne sait pas / Refuse de répondre ☐ 99 Pas applicable ☐ 88
M054	Au cours du mois dernier, combien de jours avez-vous eu à vous absenter de l'école pendant les jours ouvrables?	Nombre de jours ☐☐ Préciser les raisons: _____
M055	La semaine derniere, combien de visites pedagogiques avez-vous reçues à l'école?	Nombre de visites ☐☐ Préciser les raisons: _____
M056	La semaine derniere, combien de visites de parents d'eleves avez-vous reçues à l'école?	Nombre de visites ☐☐ Préciser les raisons: _____
M057	La semaine derniere, combien d'autres visites avez-vous reçues à l'école?	Nombre de visites ☐☐ Préciser les raisons: _____
M058	La semaine derniere, combien de jours etes-vous arrivé en retard à l'école?	Nombre de jours ☐☐ Préciser les raisons: _____
M059	La semaine derniere, combien de jours avez-vous quitté l'école avant l'heure?	Nombre de jours ☐☐ Préciser les raisons: _____

M060	Vous arrive-t-il de recevoir des coups de téléphone pendant que vous donnez cours?	Jamais ☐ 1 Rarement ☐ 2 Souvent ☐ 3 Tous les jours ☐ 4 Préciser les raisons:_____
M061	Au cours de la semaine dernière, combien de jours avez-vous donné des devoirs à faire à la maison?	Nombre de jours (entre 0 et 5) ☐
M062	Au cours de la semaine dernière, combien de jours avez-vous donné des devoirs **de lecture** à faire à la maison?	Nombre de jours (entre 0 et 5) ☐
M063	Est ce que les parents / tuteurs vérifient les devoirs des élèves à la maison?	jamais ☐ 0 de temps en temps ☐ 1 souvent ☐ 2 Chaque fois qu'il y a quelque-chose a rendre ☐ 3 Ne sait pas / Refuse de répondre ☐ 99 Pas applicable, ils n'ont pas de devoirs a faire a la maison ☐ 88
M064	Combien de temps un élève de votre classe devrait-il consacrer chaque jour à ses devoirs à faire à la maison, en moyenne, selon vous? [SI L'ENSEIGNANT NE SAIT PAS, DEMANDEZ-LUI DE DEVINER]	Moins de 15 minutes ☐ 0 De 15 à 29 minutes ☐ 1 De 30 à 59 minutes ☐ 2 Une heure ou plus ☐ 3 Pas applicable, je ne donne pas de devoirs ☐ 88
M065	Comment faites-vous pour savoir si les élèves progressent? [NE PAS LIRE LES REPONSES POSSIBLES. COCHER **TOUTES** LES METHODES CITÉES]	Evaluation régulière sur base de test ecrits individuels ☐ 1 Evaluation régulière sur base de test par groupe ☐ 2 J'évalue les élèves à l'oral ☐ 3 Correction des devoirs en classe et à la maison ☐ 4 Autre ☐ 5 Si "Autre", préciser:_____ Ne sais pas/refuse de répondre ☐ 99
M066	A quelle frequence verifiez-vous si vos élèves progressent?	chaque leçon ☐ 1 chaque jour ☐ 2 chaque semaine ☐ 3 chaque mois ☐ 4 Jamais (il n'y a pas d'evaluation en curriculum) ☐ 5
M067	Gardez-vous une fiche d'évaluation des élèves?	Non ☐ 0 Oui ☐ 1 Ne sait pas / Refuse de répondre ☐ 99
M068	Pourriez-vous classer vos élèves par niveau de connaissance maintenant sans les interroger?	Non ☐ 0 Oui ☐ 1 Ne sait pas / Refuse de répondre ☐ 99
M069	Avez-vous une stratégie ou un programme spécifique pour aider les apprenants plus faibles?	Non ☐ 0 Oui ☐ 1 Si oui, préciser: _____ _____ _____

M070	Quel est votre technique d'enseignement préférée?	L'enseignant donne cours et les élèves écoutent (magistral)	1
		Les apprenants répètent ce que dit le professeur	2
		Les apprenants viennent au tableau	3
		Les apprenants travaillent en groupe	4
		Chaque apprenant travaille seul	5
		Autre	6
		Si autre, préciser: _____	
M071	Circulez-vous dans la classe pendant les leçons (entre les bancs)?	Non	0
		Oui	1
M072	Laissez-vous parfois les enfants seul dans la classe?	Non	0
		Oui	1
		Si oui, pourquoi?: _____	
M073	Chantez-vous en classe avec les enfants?	Non	0
		Oui	1
M074	Qui pensez-vous doit etre au centre de l'enseignement?	l'enseignant(e)	1
		l'eleve	2
M075	Y a-t-il des problèmes de discipline dans votre classe?	Non	0
		Oui	1
M076	Quelles sont les problèmes de discipline dans votre classe?	Préciser _____	
		Pas applicable	88
M077	Quelles sont vos solutions pour les problèmes de discipline dans votre classe?	Préciser:_____	
		Pas applicable	88
M078	Notez-vous les presences chaque jour?	oui, matin et apres-midi	1
		oui, le matin seulement	2
		oui, l'apres-midi seulement	3
		non	4
M079	Au jourd'hui, dans cette classe, combien d'apprenants ne sont pas venus?	Nombre d'apprenants	
M080	Aujourd'hui, dans cette classe, combien d'apprenants étaient en retard le matin?	Nombre d'apprenants	
M081	Aujourd'hui, combien d'apprenants ne sont pas revenus à l'école l'apres midi?	Nombre d'apprenants	
		Pas applicable, c'est le matin	88
		Pas applicable, ils ne viennent que le matin d'habitude	87
M082	Quel proportion des élèves restent a l'école normalement sur le temps de midi?	Personne (ou presque personne)	1
		Environ la moitié	2
		Tout le monde ou presque	3
M083	Le jour precedent ouvrable, dans cette classe, combien d'apprenants ne sont pas venus a l'école?	Nombre d'apprenants	

M084	Le jour precedent ouvrable, dans cette classe, combien d'apprenants etaient en retard?	Nombre d'apprenants ☐☐☐
M085	Le jour précédent ouvrable, combien d'apprenants ne sont pas revenus a l'école pour l'apres-midi?	Nombre d'apprenants ☐☐☐
M086	Y a t-il des élèves dans votre classe qui dorment en plein cours?	Non ☐ 0 Oui ☐ 1
M087	Quelles sont vos 3 méthodes préferées pour aider les élèves à apprendre à lire?	Premier méthode:_____ Deuxieme méthode:_____ Troisieme méthode:_____ Ne sait pas / Refuse de répondre ☐ 99
M088	Quels sont le ou les facteurs majeurs qui, d'après-vous, limitent l'apprentissage de la lecture chez l'élève ?	Premiere:_____ Deuxieme:_____ Troisieme:_____ Ne sait pas / Refuse de répondre ☐ 99
M089	Depuis le premier jour en 1ère année à l'école, combien de mois faut-il pour que la majorite de vos élèves soit capable de lire une phrase simple?	Nombre de mois ☐☐ (Si moins d'un mois, indiquer un mois)
M090	Depuis le premier jour en 1ère année à l'école, combien de mois faut-il pour que la majorité de vos élèves soit capable de realiser des operations de calcul simples?	Nombre de mois ☐☐ (Si moins d'un mois, indiquer un mois)

Certaines personnes sont tres pessimistes à propos de l'enseignement au Mali. Pensez-vous qu'ils ont tort ou raison s'ils disent:

		Tort (1)	Raison (2)	Ni l'un ni l'autre (0)
M091	" Il n'y a aucun système d'enseignement qui fonctionne au Mali "			
M092	" Les apprenants sont trop faibles au Mali "			
M093	" Les communautés / les familles n'encouragent pas assez leurs enfants à l'école "			
M094	" Beaucoup d'enseignants ne sont pas assez motivés au Mali "			
M095	" Le système curriculum est moins performant que le système classique "			

M096	Etes-vous marié?	Non ☐ 0 Oui ☐ 1
M097	Combien d'enfants avez-vous?	Nombre d'enfants ☐☐
M098	[SI LA PERSONNE A UN OU DES ENFANTS:] Quel est l'âge de votre plus jeune enfant?	Age ☐☐ Pas applicable ☐ 88
M099	[SI LA PERSONNE A UN OU DES ENFANTS]: Y arrive-t-il parfois qu'un de vos enfants vous accompagne en classe? Si oui, avec quelle fréquence?	non, jamais ☐ 0 oui, de temps en temps ☐ 1 oui, la moitié des jours ☐ 2 oui, tous les jours ☐ 3
M100	Quel système educatif choisiriez-vous si vous deviez envoyer votre prochain enfant à l'école?	Curriculum ☐ 1 Classique ☐ 2 Privé ☐ 3 Autre ☐ 4 Si autre, preciser: _____

M101	Pourquoi choisiriez-vous ce système?	Justifier: _____ _____
M102	Habitez-vous dans le même village où se trouve l'école?	Non ☐ 0 Oui ☐ 1
M103	A combien de kilometres habitez-vous de l'école?	☐☐☐ kilometres
M104	Quel moyen de transport empruntez-vous pour venir a l'école habituellement?	A pied ☐ 1 Par vélo ☐ 2 Par mobylette ☐ 3 Par car / Sotrama ☐ 4 Autre ☐ 5 Si "Autre", préciser: _____
M105	Avec ce moyen de transport, il vous faut combien de temps pour venir de chez vous a l'école?	☐☐ hrs ☐☐☐ mins
M106	Lisez-vous souvent en-dehors de l'école? [SI OUI,] En quelle(s) langue(s)?	oui, en langue nationale et en Français ☐ 1 oui, en langue nationale ☐ 2 oui, en Français ☐ 3 non ☐ 4
M107	Avez-vous suivi la formation curriculum du Ministère d'Education?	Non ☐ 0 Oui ☐ 1 Ne sait pas / Refuse de répondre ☐ 99
M108	Si oui, quand était cette formation? [ENTREZ LE MOIS ET L'ANNÉE]	M M A A ☐☐☐☐ Pas applicable, n'a pas suivi de formation ☐ 88
M109	Avez-vous suivi une formation du programme "PHARE", de "l'approche equilibrée" ou "EIR" ?	Non ☐ 0 Oui ☐ 1 Ne sait pas / Refuse de répondre ☐ 99
M110	Si oui, quand a été la dernière formation? [ENTREZ LE MOIS ET L'ANNÉE]	M M A A ☐☐☐☐ Pas applicable, n'a pas suivi de formation ☐ 88
M111	Avez-vous suivi une autre formation ou des cours vous préparant à enseigner en langue nationale?	Non ☐ 0 Oui ☐ 1 Ne sait pas / Refuse de répondre ☐ 99
M112	Si oui, quand a été la dernière formation? [ENTREZ LE MOIS ET L'ANNÉE]	M M A A ☐☐☐☐ Pas applicable, n'a pas suivi de formation ☐ 88
M113	Si oui, combien de temps a duré la formation? [ENTREZ LE NOMBRE DE JOURS, SEMAINES OU MOIS COMME EXPRIMÉ]	☐☐☐ jours ☐☐☐ semaines ☐☐☐ mois Pas applicable, n'a pas suivi de formation ☐ 88 Ne sait pas / Refuse de répondre ☐ 99
M114	Qui a organisé cette formation?	CAP ☐ 1 ONG ☐ 2 AUTRE ☐ 3 Si "Autre", préciser:_____ Pas applicable, n'a pas suivi de formation ☐ 88

M115	Qui vous a designé pour participer a cette formation?	Mon CAP m'a invité ☐ 1 Mon Directeur m'a envoyé ☐ 2 J'ai pris l'initiative d'y aller ☐ 3 Autre ☐ 4 Si "Autre", préciser:_____ Pas applicable, n'a pas suivi une formation ☐ 88
M116	Utilisez-vous les programmes radio (EIR) dans votre classe? Si oui, avec quelle frequence?	Non ☐ 0 Oui, moins d'une fois par mois ☐ 1 Oui, une à deux fois par mois ☐ 2 Oui, une ou deux fois par semaine ☐ 3 Oui, plus de 2 fois par semaine ☐ 4
M117	Avez-vous suivi une formation avec IEP?	Non ☐ 0 Oui ☐ 1

Les questions qui suivent doivent etre posées uniquement dans les écoles avec le programme RLL.

M118	A quelle leçon RLL en êtes-vous?	_____
M119	Combien de leçons avez-vous couvertes?	_____
M120	Dans le programme RLL, il y a combien de "domaines"?	_____ *[Indiquer la réponse donnée, AVANT de fournir la bonne réponse ("5"). NE PAS CORRIGER les réponses érronnées!]*
M121	Citez les 5 domaines du Programme RLL	Domaine 1: _____ Domaine 2: _____ Domaine 3: _____ Domaine 4: _____ Domaine 5: _____ *[Indiquer les réponses données, AVANT de fournir les bonnes réponses au besoin. NE PAS CORRIGER les réponses erronnées!]* Ne sait pas / Refuse de répondre ☐ 99
M122	Combien d'heures avez-vous consacrées à chaque domaine de compétence la semaine passée?	Nbre d'heure(s) pour Domaine 1, _____ ☐☐ Nbre d'heure(s) pour Domaine 2, _____ ☐☐ Nbre d'heure(s) pour Domaine 3, _____ ☐☐ Nbre d'heure(s) pour Domaine 4, _____ ☐☐ Nbre d'heure(s) pour Domaine 5, _____ ☐☐
M123	Quel domaine prenez-vous le plus de plaisir à enseigner?	Domaine 1, _____ ☐ 1 Domaine 2, _____ ☐ 2 Domaine 3, _____ ☐ 3 Domaine 4, _____ ☐ 4 Domaine 5, _____ ☐ 5
M124	Combien de seances de lecture avez-vous organisees la semaine passee?	Nombre de seances ☐☐
M125	Combien de temps passiez-vous a preparer une séance de lecture au debut du programme RLL?	Moins de 15 minutes ☐ 1 De 15 à 29 minutes ☐ 2 De 30 à 59 minutes ☐ 3 Une heure ou plus ☐ 4

M126	Combien de temps vous fallait-il pour compléter une leçon au debut du programme RLL?	Environ 20 minutes Environ 30 minutes Environ 40 minutes Environ 50 minutes Environ une heure Environ une heure 10 Environ une heure 20 Plus d'une heure 20	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8
M127	Combien de minutes en moyenne passez-vous actuellement à preparer une séance de lecture du programme RLL?	Moins de 15 minutes De 15 à 29 minutes De 30 à 59 minutes Une heure ou plus	☐ 1 ☐ 2 ☐ 3 ☐ 4
M128	Combien de temps vous faut-il pour compléter une séance de lecture du programme RLL maintenant?	Environ 20 minutes Environ 30 minutes Environ 40 minutes Environ 50 minutes Environ une heure Environ une heure 10 Environ une heure 20 Plus d'une heure 20	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8
M128	Le materiel pedagogique du programme RLL vous semble-t'il adequat?	Non Oui Suggestions:_____	☐ 0 ☐ 1
M129	Les formations fournies par IEP vous semblent adequates?	Non Oui Suggestions:_____	☐ 0 ☐ 1
M130	A quelle fréquence les membres de l'équipe IEP vous rend-elle visite?	jamais moins d'une fois par trimestre 1 à 2 fois par trimestre 1 à 2 fois par mois Plus de 2 fois par mois	☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4
M131	Faudrait-il plus de suivi, ou moins de suivi, par les agents IEP? Avez-vous des suggestions par rapport à ce suivi?	plus moins Suggestions:_____	☐ 1 ☐ 2
M132	Pensez-vous avoir pleinement assimilé la nouvelle méthode d'enseignement du programme RLL?	Non Oui	☐ 0 ☐ 1
M133	Quels sont les qualités requises pour mettre en oeuvre le programme RLL de manière efficace:	Expliquer:_____ Expliquer:_____ Expliquer:_____ Ne sait pas / Refuse de répondre	☐ 99
M134	IEP propose-t-il un système pour encourager les enseignants à implémenter efficacement le programme RLL?	Non Oui Expliquer:_____	☐ 0 ☐ 1
	MERCI BEAUCOUP !	Heure d'achèvement de l'entretien : ☐ H ☐ min SIGNATURE DU PASSATEUR : _____	

RTI – Evaluation IEP/RLL

Formulaire d'observation de classe – Lecture

1ème année

École IEP/RLL (Programme)

Code de l'enseignant _____

Nom de l'observateur _____

Code de l'école _____

Jour de l'observation _____

Classe _____ Effectif _____

Présents_____Absents_____

Leçon du jour _____

Langue d'instruction _____

Ce formulaire d'observation doit être rempli en classe pendant une leçon RLL. Lorsque vous arrivez dans la classe, asseyez-vous au fond de la salle. Essayer de ne pas interrompre ou perturber la classe. Munissez-vous d'une montre pour chronométrer le temps nécessaire

Répondez à questions suivantes :

OC1	Il y a des élèves assis sur le plancher? Combien?	Non … 0 Quelques-uns . 1 La moitie . 2 Presque toutes . 3 Toutes les . 4					
OC2	Y-a-t'il assez des pupitres (table-bancs) pour toutes les élèves?	Non . 0 Oui . 1					
OC3	Y-a-t'il assez d'espace pour ce que l'enseignants peut circuler dans la sale de classe?	Non . 0 Oui . 1					
OC4 OC4.1	Indiquer l'agencement des pupitres (table-bancs)	Rangées . 0 Petits groupes . 1		Un cercle 2 Autre (Préciser ci-dessous): 3 _____			
Est- ce que les matériaux suivants sont disponible pour les élèves à lire?							
OC5	Manuels scolaires Si oui, en quelles Langue(s)?	Non 0 Oui 1 Français .	Bamanankan 1	Songhoy 1 Bomu 1	Fulfude 1		
OC6	Livres (dehors de manuels scolaires) Si oui, en quelles Langue(s)?	Non 0 Oui 1 Français .	Bamanankan 1	Songhoy 1 Bomu 1	Fulfude 1		
OC7	Livrets (Programme RLL) Si oui, en quelles Langue(s)?	Non 0 Oui 1 Francais 1	Bamanankan 1	Songhoy 1 Bomu 1	Fulfude 1		
OC8	Posters/Tableaux muraux Si oui, en quelles Langue(s)?	Non 0 Oui 1 Francais .	Bamanankan 1	Songhoy 1 Bomu 1	Fulfude 1		
OC9	Materiaux faites par l'enseignant Si oui, en quelles Langue(s)?	Non 0 Oui 1 Francais .	Bamanankan 1	Songhoy 1 Bomu 1	Fulfude 1		
OC10	Materiaux faites par les élèves Si oui, en quelles Langue(s)?	Non 0 Oui 1 Francais .	Bamanankan 1	Songhoy 1 Bomu 1	Fulfude 1		

Encerclez la réponse

Utilisation de la méthode RLL- écoles programmes

		Oui	Non
	1ère étape- La révision- Relire le texte d'hier ***L'enseignant :***		
1	Lit d'abord le texte avant de demander aux apprenants de le lire	1	0
2	Demande aux apprenants de lire individuellement le livret de la vieille	1	0
	2ème étape- La conscience phonémique- les sons (exercice oral) ***L'enseignant :***		
3	Fait cet exercice oralement	1	0
4	Fait faire les apprenants des manipulations de sons et de lettres dans un mot	1	0
5	***L'apprenant*** fait combien de manipulations ? ☐		
	3ème étape- La phonétique- le son et le nom de la lettre ***L'enseignant :***		
6	Montre et dis le nom puis dis le son de la lettre	1	0
7	Demande aux apprenants de lire et dire les sons et les noms d'autres lettres	1	0
	4ème étape- décodage- formation de mots ***L'enseignant :***		
8	Dis le son des lettres	1	0
9	Glisse son doigt sous les lettres pour les lire	1	0
10	Demande le sens de mot aux apprenants	1	0
11	Révise quelques mots décodable familiers déjà vus	1	0
	5ème étape- l'étude du mot courant-les mots fréquemment lus ***L'enseignant :***		
12	Utilise le mot dans une phrase	1	0
13	Écrit le mot au tableau	1	0
14	Fait répéter le mot	1	0
15	Demande aux apprenants le sen de mot	1	0
16	Révise quelques mots familiers déjà vus	`1	0
	6ème étape- La lecture expressive par l'enseignant et la compréhension du texte ***L'enseignant :***		
17	Lit le texte de manière expressive	1	0
18	Reprend la lecture en posant des questions de compréhension	1	0
19	Pose des questions de vocabulaire	1	0
20	Pose des questions dont les réponses se trouvent dans le livre	1	0
21	Pose des questions dont les réponses ne se trouvent pas dans le livre	1	0
	7ème étape- L'entraînement à la lecture courante et l'écriture ***L'enseignant :***		
22	Explique le sens des images si les phrases contiennent des images	1	0
23	Permet une lecture à voix basse par les apprenants (livrets)	1	0
24	Circule pour surveiller et aider les apprenants ayant des difficultés à lire correctement	1	0
25	Demande aux apprenants d'indiquer le mot contenant la lettre du jour	1	0
26	Fait les élèves écrire la lettre		
27	Demande aux apprenants d'indiquer le mot décodable du jour dans une phrase	1	0
28	Fait les élèves écrire le mot		
29	Demande aux apprenants de former des mots qui ont un sens avec les lettres citées	1	0
30	Est-ce que l'enseignant a suivi les étapes en ordre ?	1	0

Immédiatement après la leçon, indiquez si vous avez observé les pratiques suivantes :

Encerclez la réponse

		Jamais /NON	Quelques-fois	Toujours /OUI
	L'implication des apprenants			
1	La leçon est participative	0	1	2
2	Les apprenants entament une interaction avec l'enseignant	0	1	2
3	Les apprenants entament une interaction entre eux			
4	Les apprenants son motivés à apprendre	0	1	2
5	Les apprenants sont occupés	0	1	2
	L'alignement au programme			
6	La leçon est alignée avec la leçon du jour	0	1	2
7	La leçon est alignée avec le programme RLL	0	1	2
	Pratiques utilisés pour dispenser l'enseignement			
8	La leçon est préparée	0	1	2
9	L'enseignant fait des pauses pour permettre aux apprenants de mieux comprendre	0	1	2
10	L'enseignant accepte les réponses des apprenants	0	1	2
11	L'enseignant résume les réponses	0	1	2
12	L'enseignant fait attention aux erreurs et les corrige en respectant les consignes/instructions	0	1	2
13	L'enseignant circule entre les tables pour s'assurer que tous les apprenants lisent	0	1	2
14	L'enseignant donne du travail individuel ou par groupe	0	1	2
	L'environnement de la salle de classe			
15	La leçon est au tableau avant le début des cours	0	1	2
16	Il ya un environnement lettré dans la classe	0	1	2
17	L'espace physique est organisé et propice à l'apprentissage	0	1	2
	La culture en salle de classe			
18	Les routines de la classe sont établies	0	1	2
19	Il y a une atmosphère amicale et décontractée	0	1	2

RTI – Evaluation IEP/RLL

Formulaire d'observation de classe – Lecture

1ème année

École Contrôle

Code de l'enseignant_____ _____

Nom de l'observateur _____

Code de l'école ____ _____

Jour de l'observation_____

Classe _____ _____ Effectif _____

Présents _____ Absents____ _____

Leçon du jour : _____

Langue d'instruction _____

Ce formulaire d'observation doit être rempli en classe pendant une leçon de lecture. Si l'enseignant vous informe qu'il n'enseigne pas la lecture séparément des autres matières, demandez d'observer une leçon qui portera au moins partiellement sur la lecture.

Lorsque vous arrivez dans la classe, asseyez-vous au fond de la salle. Essayer de ne pas interrompre ou perturber la classe. Munissez-vous d'une montre pour chronométrer le temps nécessaire

Répondez à questions suivantes :

OC1	Il y a des élèves assis sur le plancher? Combien?	Non … 0 Quelques-uns . 1 La moitie . 2 Presque toutes . 3 Toutes les . 4
OC2	Y-a-t'il assez des pupitres (table-bancs) pour toutes les élèves?	Non . 0 Oui . 1
OC3	Y-a-t'il assez d'espace pour ce que l'enseignants peut circuler dans la sale de classe?	Non . 0 Oui . 1
OC4 OC4.1	Indiquer l'agencement des pupitres (table-bancs)	Rangées . 0 Un cercle 2 Petits groups . 1 Autre (Préciser 3 _____
	Est- ce que les matériaux suivants sont disponible pour les élèves à lire?	
OC5	Manuels scolaires Si oui, en quelles	Non 0 Oui 1 Français . Bamanankan 1 Songhoy 1 Bomu 1 Fulfude 1
OC6	Livres ou livrets (dehors de manuels scolaires) Si oui, en quelles	Non 0 Oui 1 Français . Bamanankan 1 Songhoy 1 Bomu 1 Fulfude 1
OC7	Posters/Tableaux muraux Si oui, en quelles	Non 0 Oui 1 Français . Bamanankan 1 Songhoy 1 Bomu 1 Fulfude 1
OC8	Matériaux font par l'enseignant Si oui, en quelles	Non 0 Oui 1 Français . Bamanankan 1 Songhoy 1 Bomu 1 Fulfude 1
OC9	Matériaux font par les élèves Si oui, en quelles	Non 0 Oui 1 Français . Bamanankan 1 Songhoy 1 Bomu 1 Fulfude 1

Observation d'une classe de lecture- écoles contrôles
Indique si vous avez observé l'action

Encerclez la réponse

		Oui	Non
	L'enseignant		
1	Fait la révision- relecture du texte précédent	1	0
2	Demande aux apprenants de lire individuellement le livret de la vieille	1	0
3	Développe les sons à l'oral	1	0
4	Demande aux élèves de manipuler les sons et de lettres dans un mot	1	0
5	Montre et dis le nom puis le son de la lettre	1	0
6	Demande aux apprenants de lire et dire les sons et les noms d'autres lettres	1	0
7	Écris et fait écrire la lettre par les apprenants	1	0
8	Glisse son doigt sous les lettres pour les lire	1	0
9	Demande le sens des mots aux apprenants	1	0
10	Révise quelques mots décodables déjà vus	1	0
11	Révise quelques mots familiers déjà vus	1	0
12	Lit le texte de manière expressive	1	0
13	Reprend la lecture en posant des questions de compréhension et de vocabulaire	1	0
14	Pose des questions dont les réponses se trouvent dans le livre	1	0
15	Pose des questions dont les réponses ne se trouvent pas dans le livre	1	0
16	Autorise une lecture à voix basse par les apprenants	1	0
17	Aide les apprenants ayant des difficultés à lire correctement	1	0
18	Demande aux apprenants d'indiquer le mot contenant la lettre du jour	1	0
19	Demande aux apprenants d'indiquer le mot décodable du jour dans une phrase	1	0
20	Demande aux apprenants de former des mots qui on un sens avec les lettres citées	1	0

Immédiatement après la leçon, indiquez si vous avez observé les pratiques suivantes :

Encerclez la réponse

		Jamais	Quelques-fois	Toujours
	L'implication des apprenants			
1	La leçon est participative	0	1	2
2	Les apprenants entament une interaction avec l'enseignant	0	1	2
3	Les apprenants entament une interaction entre eux	0	1	2
4	Les apprenants son motivés à apprendre	0	1	2
5	Les apprenants sont occupés	0	1	2
	L'alignement au programme			
6	La leçon est alignée avec la leçon du jour	0	1	2
7	La leçon a des éléments similaires du programme RLL	0	1	2
	Pratiques utilisés pour dispenser l'enseignement			
8	La leçon est préparée	0	1	2
9	L'enseignant fait des pauses pour permettre aux apprenants de mieux comprendre	0	1	2
10	L'enseignant accepte les réponses des apprenants	0	1	2
11	L'enseignant résume les réponses	0	1	2
12	L'enseignant fait attention aux erreurs et les corrige en respectant les consignes/instructions	0	1	2
13	L'enseignant circule entre les tables pour s'assurer que tous les apprenants lisent	0	1	2
14	L'enseignant donne du travail individuel ou par groupe	0	1	2
	L'environnement de la salle de classe			
15	La leçon est au tableau avant le début des cours	0	1	2
16	Il ya un environnement lettré dans la classe	0	1	2
17	L'espace physique est organisé et propice à l'apprentissage	0	1	2
	La culture en salle de classe			
18	Les routines de la classe sont établies	0	1	2
19	Il y a une atmosphère amicale et décontractée	0	1	2

RTI – Evaluation IEP/RLL
Formulaire d'observation de classe – Lecture

2ème année

Code de l'enseignant_____ _____

Nom de l'observateur _____

Code de l'école ____ _____

Jour de l'observation_____

Classe _____ _____ Effectif _____

Présents _____ Absents____ _____

Leçon du jour : _____

Langue d'instruction _____

Ce formulaire d'observation doit être rempli en classe pendant une leçon de lecture. Si l'enseignant vous informe qu'il n'enseigne pas la lecture séparément des autres matières, demandez d'observer une leçon qui portera au moins partiellement sur la lecture. Lorsque vous arrivez dans la classe, asseyez-vous au fond de la salle. Essayer de ne pas interrompre ou perturber la classe. Munissez-vous d'une montre pour chronométrer le temps nécessaire

Répondez à questions suivantes :

OC1	Il y a des élèves assis sur le plancher? Combien?	Non … 0 Quelques-uns . 1 La moitie . 2 Presque toutes . 3 Toutes les élèves . 4	
OC2	Y-a-t'il assez des pupitres (table-bancs) pour toutes les élèves?	Non . 0 Oui . 1	
OC3	Y-a-t'il assez d'espace pour ce que l'enseignants peut circuler dans la sale de classe?	Non . 0 Oui . 1	
OC4 OC4.1	Indiquer l'agencement des pupitres (table-bancs)	Rangées . 0 Petits groups . 1	Un cercle 2 Autre (Préciser ci-dessous): 3 _____

Est- ce que les materiaux suivants sont disponible pour les élèves à lire?

OC5	Manuels scolaires	Non 0 Oui 1 .					
	Si oui, en quelles Langue(s)?	Francais 1 Bomu 1	Bamanankan 1 Fulfude 1		Songhoy 1		
OC6	Livres (dehors de manuels scolaires)	Non 0 Oui 1 .					
	Si oui, en quelles Langue(s)?	Francais 1 Bomu 1	Bamanankan 1 Fulfude 1		Songhoy 1		
OC7	Livrets (Programme RLL)	Non 0 Oui 1 .					
	Si oui, en quelles Langue(s)?	Francais 1 Bomu 1	Bamanankan 1 Fulfude 1		Songhoy 1		
OC8	Posters/Tableaux muraux	Non 0 Oui 1 .					
	Si oui, en quelles Langue(s)?	Francais 1 Bomu 1	Bamanankan 1 Fulfude 1		Songhoy 1		
OC9	Materiaux faites par l'enseignant	Non 0 Oui 1 .					
	Si oui, en quelles Langue(s)?	Francais 1 Bomu 1	Bamanankan 1 Fulfude 1		Songhoy 1		
OC10	Materiaux faites par les élèves	Non 0 Oui 1 .					
	Si oui, en quelles Langue(s)?	Francais 1 Bomu 1	Bamanankan 1 Fulfude 1		Songhoy 1		

Observation « Flash / Coup d'oeil»: Toutes les 3 minutes, **r**emplir le tableau « Flash / Coup d'oeil» sur cette page. Vous ferez en tout 16 observations pendant 48 minutes

- Pour les sections A et B, mettez une croix (X) dans la case correspondant le mieux à l'action de l'enseignant, des élèves, etc.
- Pour les sections C à E, notez le code correspondant à la langue utilisée : (Bamanka = Ba, Bomu = Bo, Fulfulde = Fu, Songhoy = So, Français = Fr)

Notez que pour les 8 observations vous devrez renseigner toutes les sections (A, B, C, D, E) à chaque « flash / coup d'oeil» (toutes les 3 minutes).
Ne pas oublier de noter l'heure à laquelle commence et se termine l'observation.

Heure de commence: _____	Observation n° :							
	1	2	3	4	5	6	7	8
A) Focus de l'enseignant : (mettez une seule X pour chaque flash)								
Toute la classe								
Petit groupe								
Un seul élève								
Autre/Ne s'occupe pas des élèves								
L'enseignant n'est pas dans la classe								
B) Contenu de l'enseignement : (une ou deux X possible)								
Travail sur les sons sans support écrit (à l'oral uniquement)								
Travail sur les Lettres et/ou les sons (avec support écrit)								
Lecture de mots isolés								
Lecture de phrases								
Vocabulaire (sens des mots)								
Ecriture / dictée								
Lecture de texte								
Compréhension de texte								
Ecriture – création de textes								
Autre / Vous ne savez pas								

Code langue :			
Bamankan	Ba	Songhoy	So
Bomu	Bo	Français	Fr
Fulfulde	Fu		

	Observation n° :							
	1	2	3	4	5	6	7	8
C) Action de l'enseignant (Code langue, une ou deux action possible)								
Lit à haute voix								
Ecrit								
Parle								
Écoute les élèves								
Surveille les élèves								
Autre (transition, corrige le comportement des élèves, etc.)								
D) Action des élèves (Code langue, une ou deux action possible)								
Lisent tous ensemble								
Un seul élève lit à haute voix								
Lisent en silence								
Parle								
Ecrivent sur leur cahier/ardoise								
Ecrit / Ecrivent au tableau								
Ecoutent / regardent								
Répètent / récitent								
Autre (jeux, etc.)								
E) Support(s) utilisé(s) (Code langue, un ou plusieurs supports)								
Tableau								
Livre (enseignant uniquement)								
Livres (élèves)								
Papier (feuilles de travail/photocopies)								
Cartes-éclairs (cartons)								
Posters / Tableaux muraux								
Ardoises								
Autre								
Non/Rien utilisé								

Observation « Flash / Coup d'oeil»: Toutes les 3 minutes, **r**emplir le tableau « Flash / Coup d'oeil» sur cette page. Vous ferez en tout 16 observations pendant 48 minutes

- Pour les sections A et B, mettez une croix (X) dans la case correspondant le mieux à l'action de l'enseignant, des élèves, etc.
- Pour les sections C à E, notez le code correspondant à la langue utilisée : (Bamanka = Ba, Bomu = Bo, Fulfulde = Fu, Songhoy = So, Français = Fr)

Notez que pour les 8 observations vous devrez renseigner toutes les sections (A, B, C, D, E) à chaque « flash / coup d'oeil» (toutes les 3 minutes).
Ne pas oublier de noter l'heure à laquelle commence et se termine l'observation.

Heure de la fin: _____	Observation n° :							
	9	10	11	12	13	14	15	16
A) Focus de l'enseignant : (mettez une seule X pour chaque flash)								
Toute la classe								
Petit groupe								
Un seul élève								
Autre/Ne s'occupe pas des élèves								
L'enseignant n'est pas dans la classe								
B) Contenu de l'enseignement : (une ou deux X possible)								
Travail sur les sons sans support écrit (à l'oral uniquement)								
Travail sur les Lettres et/ou les sons (avec support écrit)								
Lecture de mots isolés								
Lecture de phrases								
Vocabulaire (sens des mots)								
Ecriture / dictée								
Lecture de texte								
Compréhension de texte								
Ecriture – création de textes								
Autre / Vous ne savez pas								

Code langue :			
Bamankan	Ba	Songhoy	So
Bomu	Bo	Français	Fr
Fulfulde	Fu		

	Observation n° :							
	9	10	11	12	13	14	15	16
C) Action de l'enseignant (Code langue, une ou deux action possible)								
Lit à haute voix								
Ecrit								
Parle								
Écoute les élèves								
Surveille les élèves								
Autre (transition, corrige le comportement des élèves, etc.)								
D) Action des élèves (Code langue, une seule action possible)								
Lisent tous ensemble								
Un seul élève lit à haute voix								
Lisent en silence								
Parle								
Ecrivent sur leur cahier/ardoise								
Ecrit / Ecrivent au tableau								
Ecoutent / regardent l'enseignant								
Répètent / récitent								
Autre (jeux, etc.)								
E) Support(s) utilisé(s) (Code langue, un ou plusieurs supports)								
Tableau								
Livre (enseignant uniquement)								
Livres (élèves)								
Papier (feuilles de travail/photocopies)								
Cartes-éclairs (cartons)								
Posters / Tableaux muraux								
Ardoises								
Autre								
Non/Rien utilisé								

Immédiatement après la leçon, indiquez si vous avez observé les pratiques suivantes :

Encerclez la réponse

		Jamais /NON	Quelques-fois	Toujours /OUI
	L'implication des apprenants			
1	La leçon est participative	0	1	2
2	Les apprenants entament une interaction avec l'enseignant	0	1	2
3	Les apprenants entament une interaction entre eux	0	1	2
4	Les apprenants son motivés à apprendre	0	1	2
5	Les apprenants sont occupés	0	1	2
	L'alignement au programme			
6	La leçon est alignée avec la leçon du jour	0	1	2
	Pratiques utilisés pour dispenser l'enseignement			
7	La leçon est préparée	0	1	2
8	L'enseignant fait des pauses pour permettre aux apprenants de mieux comprendre	0	1	2
9	L'enseignant accepte les réponses des apprenants	0	1	2
10	L'enseignant résume les réponses	0	1	2
11	L'enseignant fait attention aux erreurs et les corrige en respectant les consignes/instructions	0	1	2
12	L'enseignant circule entre les tables pour s'assurer que tous les apprenants lisent	0	1	2
13	L'enseignant donne du travail individuel ou par groupe	0	1	2
	L'environnement de la salle de classe			
14	La leçon est au tableau avant le début des cours	0	1	2
15	Il ya un environnement lettré dans la classe	0	1	2
16	L'espace physique est organisé et propice à l'apprentissage	0	1	2
	La culture en salle de classe			
17	Les routines de la classe sont établies	0	1	2
18	Il y a une atmosphère amicale et décontractée	0	1	2

Notes :

Attachment 4. Detailed statistical output tables

Attachment 4.1	School-level characteristics by study year and treatment group
Attachment 4.2	Grade 1 teacher and classroom characteristics by study year and treatment group
Attachment 4.3	Grade 2 teacher and classroom characteristics by study year and treatment group
Attachment 4.4	Evolution of school-level characteristics across study years, by treatment group
Attachment 4.5	Evolution of Grade 1 teacher and classroom characteristics across study years, by treatment group
Attachment 4.6	Evolution of Grade 2 teacher and classroom characteristics across study years, by treatment group

Attachment 4.1. SCHOOL-LEVEL CHARACTERISTICS BY STUDY YEAR AND TREATMENT GROUP

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
B2_06 The school has drinking water	*RLL*	36	.739	.445	.295* *	68	.577	.498	-.047 n.s.	69	.561	.500	-.259** **
	Comparison	46	.461	.504	.011	68	.675	.472	.593	67	.781	.417	.004
B2_07 The school has electricity	*RLL*	36	.332	.478	.169 n.s.	65	.114	.321	.031 n.s.	69	.194	.398	-.004 n.s.
	Comparison	46	.187	.394	.144	68	.108	.313	.727	67	.210	.410	.966
B2_11 Distance to closest city (in kms)	*RLL*	0				0				69	26.304	23.978	-.065 n.s.
	Comparison	0				0				67	27.436	22.164	.390
b2_11_urb School is <10 km from city	*RLL*	0				0				69	.299	.461	.087 n.s.
	Comparison	0				0				67	.228	.423	.328
B1_05t Student enrollment - Total	*RLL*	0				68	440.953	232.561	.138 n.s.	69	418.433	210.702	.131 n.s.
	Comparison	0				68	369.675	217.580	.056	67	353.957	168.559	.073
B1_05gpi Gender parity in student enrollment (girls / boys)	*RLL*	0				68	.956	.264	-.155* *	69	.935	.233	-.151* n.s.
	Comparison	0				68	1.076	.243	.031	67	.986	.201	.039
B1_03 Years since school became a curriculum school	*RLL*	0				67	5.178	1.562	.026 n.s.	69	6.727	2.625	.064 n.s.
	Comparison	0				66	5.013	1.459	.750	67	6.454	3.240	.418
B2_05 School received books written in national language	*RLL*	36	.902	.301	.105 n.s.	68	.889	.316	-.057 n.s.	69	.922	.271	.119 *
	Comparison	46	.839	.372	.361	68	.915	.281	.512	67	.807	.398	.183
A1_06 Principal's years of being a School Principal	*RLL*	38	7.821	5.828	.051 n.s.	68	7.453	6.113	.071 n.s.	69	7.269	5.772	.030 n.s.
	Comparison	46	7.560	6.832	.602	68	6.266	5.712	.338	67	7.237	5.745	.691
A1_11 School Principal received training to be a school School Principal	*RLL*	34	.618	.493	.158 n.s.	68	.629	.487	.130 *	69	.409	.495	.076 n.s.
	Comparison	41	.464	.505	.189	67	.447	.501	.138	67	.330	.474	.397
A1_12a School Principal trained in national languages teaching	*RLL*	36	.935	.251	.018 n.s.	67	.890	.316	.118 n.s.	66	.797	.405	.055 n.s.
	Comparison	46	.941	.238	.874	66	.816	.390	.183	66	.748	.438	.546
A1_12c School Principal participated in an IEP training	*RLL*	0				67	.839	.370	.792** ***	69	.793	.408	.730** ***
	Comparison	0				68	.064	.247	.000	67	.053	.225	.000
A2_01 School Principal trained teachers in applying the curriculum school	*RLL*	36	.401	.497	-.196 n.s.	68	.338	.477	-.138 n.s.	69	.843	.366	.425** ***
	Comparison	46	.579	.499	.091	66	.467	.503	.117	67	.436	.500	.000
A2_02 School Principal or other reviews teachers' lesson plans	*RLL*	38	1.000	.000[b]		68	1.000	.000[c]		69	1.000	.000[b]	
	Comparison	44	1.000	.000[b]		68	1.000	.000[c]		67	1.000	.000[b]	

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
A2_03a School Principal or other observes classrooms	*RLL*	38	1.000	.000[b]		66	.930	.257	-.129 n.s.	69	1.000	.000[b]	
	Comparison	44	1.000	.000[b]		66	.974	.160	.146	67	1.000	.000[b]	
A2_03b N of classes observed by School Principal in previous week	*RLL*	0				68	2.602	1.079	-.238** n.s.	69	2.085	1.524	-.016 n.s.
	Comparison	0				66	2.918	1.185	.004	67	2.150	1.578	.845
A2_04 School Principal organized Conseil des maîtres in past 3 months	*RLL*	0				68	.935	.249	-.034 n.s.	69	.909	.290	-.056 n.s.
	Comparison	0				68	.956	.207	.699	67	.930	.258	.528

* p < 0.05; ** p < 0.01; *** p < 0.001.

a. Sample n's and statistics are adjusted using Finite Population Correction (FPC) to approximate school population distribution of language groups.

b. t cannot be computed because the standard deviations of both groups are 0.

Attachment 4.2. GRADE 1 TEACHER AND CLASSROOM CHARACTERISTICS BY STUDY YEAR AND TREATMENT GROUP

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
Teacher's general pedagogical background													
C2_01 Teacher possesses DEF	*RLL*	29	.880	.331	.163	67	.882	.326	-.050	64	.798	.405	-.014
	Comparison	32	.738	.447	.231	67	.910	.289	.573	62	.825	.383	.877
C2_02 Teachers possesses higher degree (DEF+4 or Bac +4)	*RLL*	29	.215	.418	.120	67	.379	.489	-.155	64	.305	.464	-.048
	Comparison	32	.120	.330	.377	67	.491	.504	.079	62	.351	.481	.604
C1_04 Years of teaching experience	*RLL*	30	8.657	6.303	-.035	65	7.055	6.136	.071	64	9.999	8.041	.116
	Comparison	32	9.365	7.224	.761	67	6.050	4.931	.347	62	7.510	6.274	.136
C1_01 Teacher is female	*RLL*	30	.285	.459	-.015	63	.550	.501	.080	64	.400	.494	.017
	Comparison	32	.309	.470	.910	67	.517	.503	.368	62	.451	.502	.857
Pedagogical leadership support provided to the teacher													
C6_01 Director (or deputy) reviews lesson plan	*RLL*	30	1.000	.000[b]		65	.978	.149	.144	64	.898	.304	-.021
	Comparison	32	1.000	.000[b]		67	.921	.272	.104	62	.902	.300	.819
C6_03b Lesson plans reviewed every week or more	*RLL*	29	1.000	.000[b]		65	.911	.287	-.182[*] *	64	.977	.153	-.129
	Comparison	31	1.000	.000[b]		67	1.000	.000	.040	62	1.000	0.000	.163
C6_04 Director or Assistant Director observes classrooms	*RLL*	30	.961	.197	.227	65	.814	.392	-.007	64	.866	.343	.119
	Comparison	31	.808	.400	.095	67	.846	.364	.936	62	.770	.424	.199
C6_06a Class observed every 2-3 months or less	*RLL*	30	.312	.471	.216	65	.138	.347	-.176[*] *	64	.116	.323	.021
	Comparison	27	.132	.345	.123	67	.240	.431	.048	62	.098	.300	.819
C6_06b Class observed every week or more	*RLL*	30	.246	.438	-.109	65	.374	.488	-.020	64	.343	.479	-.083
	Comparison	27	.362	.490	.436	67	.414	.496	.826	62	.441	.501	.368
C6_07a Teacher received one or more pedagogical visits in past week	*RLL*	0				63	.413	.496	.123	62	.378	.489	.109
	Comparison	0				67	.329	.473	.168	61	.254	.439	.246
Curriculum and RLL program training and support received													
C2_03a T has received training in national languages	*RLL*	30	.961	.197	.076	65	.933	.252	.135	64	.855	.354	.239[**] **
	Comparison	31	.922	.272	.578	67	.846	.364	.129	62	.623	.488	.010
C2_05 Followed training with IEP	*RLL*	0				64	.771	.423	.682[**] ***	64	.727	.449	.682[**] ***
	Comparison	0				60	.075	.266	.000	62	.056	.232	.000
C6_08 T has access to support for national language instruction	*RLL*	29	1.000	.000[b]		65	.976	.154	.001	64	.939	.240	-.032
	Comparison	32	1.000	.000[b]		62	.953	.213	.987	62	.943	.234	.732
Curriculum and RLL program material inputs available													
B3_04a Received books from Ministry for teaching in national language	*RLL*	30	.351	.485	-.118	64	.250	.436	-.433[**] ***	64	.517	.504	-.018
	Comparison	32	.431	.503	.383	67	.676	.471	.000	62	.529	.503	.847
B3_07a Fewer than 25% of students in class have national language schoolbook	*RLL*	25	.910	.297	.110	65	.820	.386	-.008	64	.740	.441	-.173
	Comparison	27	.820	.388	.449	67	.790	.407	.926	62	.890	.318	.061
B3_07c Over 75% of students in class have national language schoolbook	*RLL*	25	.000	.00000[b]		65	.107	.311	-.039	64	.184	.39000	.184[*] *
	Comparison	27	.000	.00000[b]		67	.139	.348	.663	62	.056	.23200	.047

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
OCF_05lc Textbooks are available in language of instruction	*RLL*	0				0				63	.540	.502	.601** ***
	Comparison	0				0				65	.018	.136	.000
OCF_06lc Other books are available in language of instruction	*RLL*	0				0				63	.114	.320	.181* *
	Comparison	0				0				65	.018	.135	.050
OCF_08lc Wall displays are available in language of instruction	*RLL*	0				0				63	.455	.502	.199* *
	Comparison	0				0				65	.292	.458	.031
OCF_09lc Teacher-made materials are available in language of instruction	*RLL*	0				0				63	.462	.503	.196* *
	Comparison	0				0				65	.325	.472	.033
OCF_10lc Student-made materials are available in language of instruction	*RLL*	0				0				63	.038	.193	.132
	Comparison	0				0				65	.000	0.000	.152
OCFscale_loi Proportion of 5 types of reading materials available in LOI	*RLL*	0				0				63	.322	.24573	.408** ***
	Comparison	0				0				65	.131	.16862	.000
OCFscale_fr Proportion of 5 types of reading materials available in French	*RLL*	0				0				63	.029	.10734	-.171
	Comparison	0				0				65	.057	.12521	.059
RLLbooks_LOI RLL books are available in language of instruction	*RLL*	0				0				0			
	Comparison	0				0				0			
Teacher's facility of teaching in national language													
C1_07a Language of instruction is Teacher's maternal language	*RLL*	0				65	.849	.361	.143	62	.769	.425	.186* *
	Comparison	0				67	.698	.463	.107	62	.604	.493	.046
C1_05 Years of teaching experience in national language	*RLL*	30	3.082	2.500	-.021	65	2.559	2.621	.033	64	4.925	3.656	.103
	Comparison	29	3.348	2.941	.865	67	2.849	2.955	.684	62	4.088	3.553	.192
PA_tot_pct Teacher's score on phonemic awareness task - Percent correct	*RLL*	0				0				64	.820	.197032	.114
	Comparison	0				0				62	.779	.200899	.168
Comp_tot_pct Teacher's score on reading comprehension task in national language - Percent correct	*RLL*	0				0				64	.658	.284252	-.082
	Comparison	0				0				62	.712	.204392	.313
MAZE_tot_pct Teacher's score on MAZE task in national language - Pct correct	*RLL*	0				0				63	.851	.165803	.012
	Comparison	0				0				62	.826	.220068	.885
Dict_tot_pct Teacher's score on writing dictation in national language - Pct correct	*RLL*	0				0				64	.747	.172817	-.089
	Comparison	0				0				62	.774	.174100	.249
Tscore_NL Teacher's combined national language score (avg 4 scores)	*RLL*	0				0				64	.769	.16078	.018
	Comparison	0				0				62	.773	.13349	.815
General good classroom practices supported by RLL													
C3_03a Teacher seldom or never uses French in class	*RLL*	0				65	.911	.287	.079	64	.804	.400	.198* *
	Comparison	0				67	.868	.341	.374	62	.623	.488	.032
C3_03b Teacher often or always uses French in class	*RLL*	0				65	.067	.252	-.087	62	.139	.348	-.151
	Comparison	0				67	.110	.316	.325	62	.243	.433	.105

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
OCP3_01 Lesson is participatory	*RLL*	0				65	.954	.211	.178* *	63	.957	.204	-.162
	Comparison	0				67	.843	.367	.044	65	1.000	.000	.078
OCP3_06 Lesson is aligned with program's 'lesson of the day'	*RLL*	0				65	.951	.217	.257** **	63	.920	.273	.078
	Comparison	0				65	.759	.431	.004	65	.880	.327	.398
OCP3_08 Lesson was prepared before class	*RLL*	0				65	.798	.405	.129	63	.957	.204	.119
	Comparison	0				67	.749	.437	.143	65	.886	.320	.198
OCP3_09 T pauses to ensure that students understand	*RLL*	0				64	.652	.480	-.062	63	.919	.275	.165
	Comparison	0				67	.753	.435	.483	65	.780	.417	.074
OCP3_10 T accepts the responses of students	*RLL*	0				65	.976	.154	.263** **	63	.938	.243	-.127
	Comparison	0				67	.798	.405	.003	65	.982	.135	.166
OCP3_11 T summarizes students responses	*RLL*	0				64	.610	.492	.272** **	63	.863	.347	.106
	Comparison	0				65	.452	.502	.002	65	.762	.429	.248
OCP3_12 T is attentive to errors & corrects them in line with instructions	*RLL*	0				48	.965	.187	.011	63	.976	.154	-.055
	Comparison	0				67	.952	.214	.909	65	.982	.135	.551
OCP3_13 T circulates among tables to make sure all students are reading	*RLL*	0				65	.625	.488	.335** ***	63	.697	.463	.298** **
	Comparison	0				67	.275	.450	.000	65	.404	.494	.001
OCP3_14 T gives independent work to individual learners and groups	*RLL*	0				65	.733	.446	-.022	63	.735	.445	-.107
	Comparison	0				67	.745	.439	.801	65	.821	.386	.243
OCP3_15 Lesson is written on blackboard before the start of class	*RLL*	0				64	.507	.504	.109	63	.750	.436	.071
	Comparison	0				67	.479	.503	.221	65	.725	.450	.442
OCP3_16 There is a literate environment in the classroom	*RLL*	0				65	.650	.481	.105	63	.725	.450	.160
	Comparison	0				67	.559	.500	.236	64	.603	.493	.083
OCP3_17 The physical space is organized to favor learning	*RLL*	0				65	.770	.424	.066	63	.881	0.326	-.124
	Comparison	0				67	.746	.439	.457	65	.958	.201	.179
OCP3_18 Class routines have been established	*RLL*	0				64	.853	.357	-.004	63	.976	.154	-.002
	Comparison	0				65	.838	.371	.968	65	.977	.152	.986
OCP3_19 Class atmosphere is friendly and relaxed	*RLL*	0				65	.930	.257	.194* *	63	.938	.243	-.127
	Comparison	0				67	.715	.455	.028	65	.982	.135	.166
GTP14_pct Proportion of 14 general good teaching behaviors observed	*RLL*	0				65	.779	.184	.244 **	63	.874	.185	.262 **
	Comparison	0				67	.690	.196	.001	65	.839	.121	.001
Student engagement and use of student-centered activities in classroom practices													
C4_01_G1G2 Class enrollment	*RLL*	69	67.192	24.803	.098	65	77.057	34.050	.265** ***	63	61.829	30.064	.052
	Comparison	67	61.772	23.822	.182	65	57.856	23.911	.000	62	58.336	19.216	.497
C4_05 Proportion of students present in class on day of visit	*RLL*	31	.824	.411	-.096	62	.836	.214	.022	62	.831	.44362	-.001
	Comparison	38	.917	.421	.361	63	.849	.210	.767	62	.823	.17576	.993
C4_05a Fewer than 80% of students present in class on day of visit	*RLL*	31	.546	.506	.142	62	.257	.440	-.065	62	.310	.466	-.018
	Comparison	38	.422	.501	.264	63	.293	.459	.473	62	.342	.478	.843

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
C4_05b Over 95% of students present in class on day of visit	*RLL*	31	.340	.482	-.052	62	.361	.484	-.011	62	.333	.475	.056
	Comparison	38	.382	.492	.682	63	.407	.495	.903	62	.276	.451	.546
B3_09a Fewer than 25% of students have chalk & slate on day of visit	*RLL*	0				65	.218	.416	.050	64	.061	.240	-.163
	Comparison	0				63	.185	.391	.578	62	.146	.356	.077
B3_09b Over 75% of students have chalk & slate on day of visit	*RLL*	0				65	.711	.457	-.007	64	.848	.362	.191* *
	Comparison	0				63	.700	.462	.937	62	.730	.448	.039
OCP3_02 Students are engaged interactively with the teacher	*RLL*	0				63	.768	.425	.195* *	63	.919	.275	-.211* *
	Comparison	0				67	.652	.480	.029	65	1.000	.000	.022
OCP3_03 Students are engaged interactively with other students	*RLL*	0				0				63	.365	.485	.131
	Comparison	0				0				65	.266	.445	.154
OCP3_04 Students appear motivated to learn	*RLL*	0				64	.977	.151	.371** ***	63	.900	.302	-.136
	Comparison	0				63	.693	.465	.000 ***	65	.977	.152	.138
OCP3_05 Students are busy	*RLL*	0				60	.974	.159	.374** ***	63	.938	.243	-.079
	Comparison	0				67	.675	.472	.000	65	.977	.152	.392
SENG_pct Proportion of 3 student engagement behaviors observed	*RLL*	0				65	.901	.211	.386** ***	63	.919	.242	-.160
	Comparison	0				67	.679	.335	.000	65	.985	.101	.078
C5_05 Teacher focused on a small group (% of 15 obs)	*RLL*	31	.018	.030	-.224	0				0			
	Comparison	38	.056	.078	.066	0				0			
C5_06 Teacher focused on a single student (% of 15 obs)	*RLL*	31	.218	.097	.103	0				0			
	Comparison	38	.198	.139	.357	0				0			
C5_11 Students are reading aloud together (% of 15 obs)	*RLL*	31	.072	.097	-.040	0				0			
	Comparison	38	.082	.100	.731	0				0			
C5_12 One student is reading aloud (% of 15 obs)	*RLL*	31	.155	.114	.045	0				0			
	Comparison	38	.142	.108	.692	0				0			
C5_14 Student(s) writing on blackboard (% 15 obs)	*RLL*	31	.085	.084	.128	0				0			
	Comparison	38	.079	.114	.271	0				0			
C5_15 Students are writing in their notebooks or slate (% of 15 obs)	*RLL*	31	.074	.080	-.013	0				0			
	Comparison	38	.094	.106	.908	0				0			
C5_17 Students are repeating aloud or reciting (% of 15 obs)	*RLL*	31	.016	.034	-.046	0				0			
	Comparison	38	.019	.035	.716	0				0			
SCA17_all Number of student-centered activities (out of 7) observed in at least 10% of observation moments	*RLL*	31	4.851	1.957	-.027	0				0			
	Comparison	38	5.021	2.433	.818	0				0			
Fidelity to specific RLL-supported classroom practices													
OCP2_01 T first reads the text (aloud) before asking students to read (RLL-1)	*RLL*	0				65	.602	.493	.056	63	.505	.504	-.304** **
	Comparison	0				67	.563	.500	.528	65	.765	.427	.001
OCP2_02 T asks students to read previous day's booklet individually (RLL-1)	*RLL*	0				65	.659	.478	.297** **	63	.507	.504	.126
	Comparison	0				65	.355	.482	.001	65	.377	.488	.171

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
OCP2_03 T conducts phonemic awareness section orally (RLL-02)	*RLL*	0				65	.954	.211	.383** ***	63	.795	.407	.392** ***
	Comparison	0				67	.636	.485	.000	65	.437	.500	.000
OCP2_04 T asks students to manipulate sounds & letters in a word (RLL-2)	*RLL*	0				65	.906	.294	.389** ***	63	.753	.435	.304** **
	Comparison	0				64	.471	.503	.000	65	.459	.502	.001
OCP2_06 T shows the letter, says its name then its sound (RLL-3)	*RLL*	0				65	.932	.254	.373** ***	63	.884	.323	.256** **
	Comparison	0				61	.638	.484	.000	65	.664	.476	.005
OCP2_07 T asks students to read, say sounds & names of other letters (RLL-3)	*RLL*	0				65	.909	.289	.377** ***	63	.832	.377	.416** ***
	Comparison	0				67	.580	.497	.000	65	.469	.503	.000
OCP2_09 T underlines letters with finger while reading (RLL-4)	*RLL*	0				65	.928	.261	.484** ***	63	.796	.406	.150
	Comparison	0				67	.444	.501	.000	65	.669	.474	.103
OCP2_10 T asks students the meaning of words (RLL-4)	*RLL*	0				65	.850	.359	.633** ***	63	.711	.457	.298** **
	Comparison	0				63	.220	.417	.000	65	.404	.494	.001
OCP2_11 T reviews decoded & sight words already studied with students (RLL-4)	*RLL*	0				60	.926	.265	.532** ***	63	.827	.381	.334** ***
	Comparison	0				67	.460	.502	.000	65	.488	.504	.000
OCP2_18 T re-reads text and asks comprehension & vocab questions (RLL-6)	*RLL*	0				61	.899	.303	.520** ***	63	.747	.438	.317** **
	Comparison	0				67	.398	.493	.000	65	.410	.496	.001
OCP2_20 T asks questions whose answers can be found in the text (RLL-6)	*RLL*	0				65	.815	.392	.411** ***	63	.715	.455	.251** **
	Comparison	0				67	.424	.498	.000	65	.438	.500	.006
OCP2_21 T asks inferential questions - answers are NOT in the text (RLL-6)	*RLL*	0				63	.532	.503	.278** **	63	.581	.497	.494** ***
	Comparison	0				67	.230	.424	.002	65	.106	.311	.000
OCP2_23 T permits students to read booklets in a low voice (RLL-7)	*RLL*	0				65	.472	.503	.336** ***	63	.518	.504	.320** **
	Comparison	0				67	.163	.372	.000	65	.197	.401	.001
OCP2_24 T helps students having difficulties to read correctly (RLL-7)	*RLL*	0				65	.766	.427	-.004	63	.636	.485	-.135
	Comparison	0				67	.812	.394	.963	65	.748	.437	.144
OCP2_25 T asks students to find word with 'letter of the day' (RLL-7)	*RLL*	0				61	.679	.471	.073	63	.621	.489	
	Comparison	0				67	.653	.480	.415	0[b]			
OCP2_27 T asks students to find the 'word of the day' in a sentence (RLL-7)	*RLL*	0				65	.604	.493	.414** ***	63	.460	.502	.144
	Comparison	0				65	.196	.400	.000	65	.314	.468	.118
OCP2_29 T asks students to make meaningful words with specific letters (RLL-7)	*RLL*	0				65	.722	.452	.504** ***	63	.566	.500	.330** ***
	Comparison	0				67	.232	.425	.000	65	.278	.452	.000
OCP3_07 Lesson is aligned with RLL program	*RLL*	0				64	.930	.257	.537** ***	63	.882	.325	.022
	Comparison	0				65	.494	.504	.000	65	.868	.341	.810
RLL1_pct Proportion of RLL Step 1 actions observed	*RLL*	0				65	.630	.351	.226** **	63	.506	.37351	-.103
	Comparison	0				67	.466	.357	.007	65	.571	.38750	.238
RLL2_pct Proportion of RLL Step 2 actions observed	*RLL*	0				65	.930	.232	.417** ***	63	.774	.40856	.356** ***
	Comparison	0				67	.565	.436	.000	65	.448	.47638	.000

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
RLL3_pct Proportion of RLL Step 3 actions observed	*RLL*	0				65	.921	.262	.449** ***	63	.858	.29828	.362** ***
	Comparison	0				67	.595	.429	.000	65	.566	.44697	.000
RLL4_pct Proportion of RLL Step 4 actions observed	*RLL*	0				65	.903	.233	.602** ***	63	.778	.32291	.319** ***
	Comparison	0				67	.388	.374	.000	65	.520	.38268	.000
RLL6_pct Proportion of RLL Step 6 actions observed	*RLL*	0				65	.789	.273	.414** ***	63	.708	.38181	.345** ***
	Comparison	0				67	.438	.376	.000	65	.407	.35798	.000
RLL7_pct Proportion of RLL Step 7 actions observed	*RLL*	0				65	.641	.344	.451** ***	63	.596	.35022	.179* *
	Comparison	0				67	.353	.209	.000	65	.458	.27679	.029

* p < 0.05; ** p < 0.01; *** p < 0.001.

a. Sample n's and statistics are adjusted using Finite Population Correction (FPC) to approximate school populations distribution of language groups.

b. t cannot be computed because the standard deviations of both groups are 0.

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
Teacher's general pedagogical background													
C2_01 Teacher possesses DEF	*RLL*	23	.897	.311	-.043	54	.893	.313	.264** **	61	.850	.360	-.085
	Comparison	31	.922	.272	.766	65	.728	.449	.005	57	.875	.333	.378
C2_02 Teachers possesses higher degree (DEF+4 or Bac +4)	*RLL*	23	.373	.495	.062	54	.586	.497	.300** **	61	.369	.487	-.115
	Comparison	31	.321	.475	.668	65	.329	.474	.001	57	.478	.504	.233
C1_04 Years of teaching experience	*RLL*	23	12.609	9.728	.132	53	8.092	7.932	-.020	61	6.919	4.677	.059
	Comparison	31	8.584	4.918	.282	63	7.060	5.699	.805	57	6.420	3.919	.470
C1_01 Teacher is female	*RLL*	23	.475	.511	.012	53	.655	.480	.273** **	61	.564	.500	.110
	Comparison	31	.419	.502	.935	65	.452	.502	.004	57	.651	.481	.255
Pedagogical leadership support provided to the teacher													
C6_01 Director (or deputy) reviews lesson plan	*RLL*	23	1.000	.000[b]		53	.972	.165	-.105	61	.956	.206	.049
	Comparison	31	1.000	.000[b]		65	1.000	.000	.266	57	.932	.254	.607
C6_03b Lesson plans reviewed every week or more	*RLL*	23	1.000	.000[b]		53	.888	.319	-0.1373	61	.861	.349	-.137
	Comparison	31	1.000	.000[b]		65	.974	.162	.144	57	.938	.244	.154
C6_04 Director or Assistant Director observes classrooms	*RLL*	23	.846	.369	.048	53	.855	.356	.127	61	.893	.312	-.011
	Comparison	31	.835	.378	.740	65	.764	.428	.177	57	.875	.333	.905
C6_06a Class observed every 2-3 months or less	*RLL*	21	.226	.428	.022	53	.353	.483	0.1648	61	.039	.195	-.272** **
	Comparison	28	.211	.415	.881	65	.207	.408	.080	57	.198	.402	.005
C6_06b Class observed every week or more	*RLL*	21	.301	.470	.009	53	.316	.470	-.070	61	.406	.495	.085
	Comparison	28	.275	.455	.954	65	.417	.497	.457	57	.312	.467	.378
C6_07a Teacher received one or more pedagogical visits in past week	*RLL*	0				53	.375	.489	.224* *	61	.408	.496	.167
	Comparison	0				65	.164	.373	.017	57	.249	.436	.082
Curriculum and RLL program training and support received													
C2_03a T has received training in national languages	*RLL*	22	.946	.231	-.171	53	.945	.231	.058	61	.884	.323	.212* *
	Comparison	29	1.000	.000	.245	63	.930	.258	.539	57	.709	.458	.028
C2_05 Followed training with IEP	*RLL*	0				53	.785	.415	.812** ***	61	.784	.415	.755** ***
	Comparison	0				60	.000	.000	.000	56	.027	.163	.000
C6_08 T has access to support for national language instruction	*RLL*	23	1.000	.000	0.2212	47	.969	.175	.099	61	1.000	.000	.204* *
	Comparison	31	.886	.323	0.1255	63	.949	.223	.308	57	.917	.279	.034
Curriculum and RLL program material inputs available													
B3_04a Received books from Ministry for teaching in national language	*RLL*	22	.322	.478	-.049	50	.631	.488	-0.1862	61	.580	.498	-.017
	Comparison	28	.348	.485	.743	65	.748	.437	.051	57	.565	.500	.856
B3_07a Fewer than 25% of students in class have national language schoolbook	*RLL*	17	.860	.355	-.150	53	.650	.480	-.126	61	.442	.501	-.336** ***
	Comparison	25	.950	.219	.354	65	.760	.432	.181	55	.765	.428	.000
B3_07c Over 75% of students in class have national language schoolbook	*RLL*	17	.000	.00000[b]		53	.320	.469	.228* *	61	.462	.503	.317** **
	Comparison	25	.000	.00000[b]		65	.110	.311	.015	57	.142	.352	.001
OCF_05lc Textbooks are available in language of instruction	*RLL*	0				0				66	.583	.497	.584** ***
	Comparison	0				0				66	.053	.226	.000

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
OCF_06lc Other books are available in language of instruction	*RLL*	0				0				66	.054	.228	0.1568
	Comparison	0				0				66	.000	.000	.083
OCF_08lc Wall displays are available in language of instruction	*RLL*	0				0				66	.605	.493	.403** ***
	Comparison	0				0				66	.251	.437	.000
OCF_09lc Teacher-made materials are available in language of instruction	*RLL*	0				0				66	.544	.502	.255** **
	Comparison	0				0				66	.324	.472	.005
OCF_10lc Student-made materials are available in language of instruction	*RLL*	0				0				66	.018	.134	-.001
	Comparison	0				0				66	.018	.134	.991
OCFscale_loi Proportion of 5 types of reading materials available in LOI	*RLL*	0				0				66	.361	.234	.487** ***
	Comparison	0				0				66	.129	.163	.000
OCFscale_fr Proportion of 5 types of reading materials available in French	*RLL*	0				0				66	.048	.126	-.169
	Comparison	0				0				66	.104	.180	.054
RLLbooks_LOI RLL books are available in language of instruction	*RLL*	0				0				66	.760	.430	.741** ***
	Comparison	0				0				66	.036	.188	.000
Teacher's facility of teaching in national language													
C1_07a Language of instruction is Teacher's maternal language	*RLL*	0				53	.683	.470	-.143	58	.918	.277	.285** **
	Comparison	0				65	.802	.402	.127	53	.690	.467	.004
C1_05 Years of teaching experience in national language	*RLL*	23	2.662	2.410	-.161	53	3.524	3.146	-.012	61	4.080	3.014	.037
	Comparison	31	4.472	5.767	.221	65	2.981	2.128	.884	57	3.854	3.024	.659
PA_tot_pct Teacher's score on phonemic awareness task - Percent correct	*RLL*	0				0				57	.862	.122	.120
	Comparison	0				0				56	.789	.177	.172
Comp_tot_pct Teacher's score on reading comprehension task in national language - Percent correct	*RLL*	0				0				57	.705	.251	.079
	Comparison	0				0				56	.649	.250	.360
MAZE_tot_pct Teacher's score on MAZE task in national language - Percent correct	*RLL*	0				0				57	.916	.120	.267** **
	Comparison	0				0				56	.794	.235	.003
Dict_tot_pct Teacher's score on writing dictation in national language - Percent correct	*RLL*	0				0				57	.767	.131	.074
	Comparison	0				0				56	.734	.167	.375
Tscore_NL Teacher's combined national language score (average of 4 scores)	*RLL*	0				0				57	.813	.104	.163* *
	Comparison	0				0				56	.742	.155	.044
General good classroom practices supported by RLL													
C3_03a Teacher seldom or never uses French in class	*RLL*	0				53	.803	.402	.111	61	.801	.402	.133
	Comparison	0				65	.740	.442	.240	57	.684	.469	.168
C3_03b Teacher often or always uses French in class	*RLL*	0				53	.085	.281	-.002	59	.101	.304	-.131
	Comparison	0				65	.091	.290	.985	55	.195	.400	.182
OCP3_01 Lesson is participatory	*RLL*	0				52	.913	.284	0.142	66	.914	.282	-.154
	Comparison	0				62	.783	.415	.140	66	.965	.185	.089
OCP3_06 Lesson is aligned with program's 'lesson of the day'	*RLL*	0				52	.938	.244	.246* *	66	.879	.328	-.162
	Comparison	0				62	.740	.442	.011	66	.947	.225	.074

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
OCP3_08 Lesson was prepared before class	*RLL*	0				52	.857	.354	.112	66	.896	.307	-.077
	Comparison	0				62	.805	.399	.245	66	.911	.287	.398
OCP3_09 T pauses to ensure that students understand	*RLL*	0				51	.657	.480	.025	66	.932	.254	.032
	Comparison	0				62	.709	.458	.793	65	.873	.336	.723
OCP3_10 T accepts the responses of students	*RLL*	0				52	.915	.281	0.154	66	.914	.282	-.083
	Comparison	0				62	.785	.414	.110	66	.929	.258	.360
OCP3_11 T summarizes students responses	*RLL*	0				52	.662	.478	.326** **	66	.825	.383	.004
	Comparison	0				62	.377	.489	.001	66	.786	.414	.965
OCP3_12 T is attentive to errors & corrects them in line with instructions	*RLL*	0				38	.962	.194	.311** **	66	.932	.254	.003
	Comparison	0				62	.699	.462	.002	66	.893	.311	.976
OCP3_13 T circulates among tables to make sure all students are reading	*RLL*	0				52	.619	.490	0.1557	66	.785	.414	.228* *
	Comparison	0				62	.391	.492	.106	66	.539	.502	.012
OCP3_14 T gives independent work to individual learners and groups	*RLL*	0				52	.910	.289	.161	66	.717	.454	-.168
	Comparison	0				62	.748	.438	.093	66	.826	.382	.064
OCP3_15 Lesson is written on blackboard before the start of class	*RLL*	0				51	.489	.505	-.103	66	.771	.423	-.015
	Comparison	0				62	.612	.491	.285	66	.789	.411	.872
OCP3_16 There is a literate environment in the classroom	*RLL*	0				51	.790	.412	.210* *	66	.699	.462	-.044
	Comparison	0				62	.620	.489	.030	65	.735	.445	.629
OCP3_17 The physical space is organized to favor learning	*RLL*	0				51	.850	.361	.025	66	.806	.398	-.181* *
	Comparison	0				62	.827	.381	.798	66	.911	.287	.046
OCP3_18 Class routines have been established	*RLL*	0				52	.941	.238	.064	66	.932	.254	-.091
	Comparison	0				62	.879	.329	.506	66	.947	.225	.313
OCP3_19 Class atmosphere is friendly and relaxed	*RLL*	0				52	.886	.321	0.1119	66	.932	.254	-.057
	Comparison	0				62	.717	.454	.245	66	.929	.259	.528
GTP14_pct Proportion of 14 general good teaching behaviors observed	*RLL*	0				52	.809	.180	.279 **	66	.852	.251	.054
	Comparison	0				62	.692	.174	.001	66	.856	.202	.512
Student engagement and use of student-centered activities in classroom practices													
C4_01_G1G2 Class enrollment	*RLL*	67	68.546	25.469	.148* *	53	68.374	30.626	0.1201	61	65.197	27.475	.115
	Comparison	67	59.802	27.933	.045	65	61.401	29.503	.124	57	56.762	26.656	.148
C4_05 Proportion of students present in class on day of visit	*RLL*	28	.870	.341	-.186	51	.876	.103	.170* *	61	.891	.334	.017
	Comparison	34	.972	.280	.091	65	.783	.238	.030	55	.850	.207	.837
C4_05a Fewer than 80% of students present in class on day of visit	*RLL*	28	.448	.506	.275* *	51	.238	.430	-.237* *	61	.286	.456	.050
	Comparison	34	.217	.418	.040	65	.395	.493	.013	55	.234	.427	.605
C4_05b Over 95% of students present in class on day of visit	*RLL*	28	.467	.508	-.216	51	.310	.467	.073	61	.452	.502	.074
	Comparison	34	.645	.486	.106	65	.295	.460	.443	55	.401	.495	.446
B3_09a Fewer than 25% of students have chalk & slate on day of visit	*RLL*	0				53	.085	.281	-.179	61	.039	.194	-.205* *
	Comparison	0				65	.173	.382	.058	57	.135	.344	.033
B3_09b Over 75% of students have chalk & slate on day of visit	*RLL*	0				53	.765	.428	.022	61	.903	.298	.218* *
	Comparison	0				65	.780	.417	.819	57	.778	.419	.023
OCP3_02 Students are engaged interactively with the teacher	*RLL*	0				52	.777	.420	0.0848	66	.878	.330	-0.1617
	Comparison	0				58	.739	.443	.385	66	.947	.225	.074

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
OCP3_03 Students are engaged interactively with other students	*RLL*	0				0				66	.328	.473	-.040
	Comparison	0				0				66	.352	.481	.656
OCP3_04 Students appear motivated to learn	*RLL*	0				51	.854	.357	0.1795	65	.894	.310	-.179* *
	Comparison	0				60	.657	.479	.065	66	.965	.185	.049
OCP3_05 Students are busy	*RLL*	0				48	.844	.367	0.1256	66	.879	.328	-.197* *
	Comparison	0				58	.719	.454	.209	66	.965	.185	.030
SENG_pct Proportion of 3 student engagement behaviors observed	*RLL*	0				52	.822	.343	0.1483	66	.885	.296	-.199* *
	Comparison	0				62	.718	.388	.106	66	.959	.189	.026
C5_05 Teacher focused on a small group (% of 15 obs)	*RLL*	28	.097	.169	-.008	0				66	.014	.036	.124
	Comparison	34	.051	.084	.949	0				66	.009	.037	.165
C5_06 Teacher focused on a single student (% of 15 obs)	*RLL*	28	.175	.163	-.078	0				66	.070	.086	.270** **
	Comparison	34	.203	.148	.500	0				66	.048	.113	.001
C5_11 Students are reading aloud together (% of 15 obs)	*RLL*	28	.037	.052	-.121	0				66	.139	.119	.453** ***
	Comparison	34	.047	.058	.343	0				66	.038	.053	.000
C5_12 One student is reading aloud (% of 15 obs)	*RLL*	28	.219	.193	.142	0				66	.071	.077	-.206* **
	Comparison	34	.137	.122	.227	0				66	.119	.112	.012
C5_14 Student(s) writing on blackboard (% 15 obs)	*RLL*	28	.037	.084	-.225	0				66	.110	.088	.086
	Comparison	34	.067	.088	.074	0				66	.097	.101	0.290
C5_15 Students are writing in their notebooks or slate (% of 15 obs)	*RLL*	28	.068	.113	-.237	0				66	.110	.094	0.089
	Comparison	34	.108	.111	.054	0				66	.095	.103	0.273
C5_17 Students are repeating aloud or reciting (% of 15 obs)	*RLL*	28	.017	.062	-.166	0				66	.137	.097	-0.119
	Comparison	34	.024	.041	.201	0				66	.184	.159	0.132
SCA17_all Number of student-centered activities (out of 7) observed in at least 10% of observation moments	*RLL*	28	4.235	1.926	-.214	0				66	6.110	2.876	0.299 ***
	Comparison	34	5.032	2.180	.082	0				66	4.179	2.736	0.000
Fidelity to specific RLL-supported classroom practices													
OCP2_01 T first reads the text (aloud) before asking students to read (RLL-1)	*RLL*	0				52	.649	.482	.088	0			
	Comparison	0				63	.620	.489	.356	0			
OCP2_02 T asks students to read previous day's booklet individually (RLL-1)	*RLL*	0				52	.677	.472	0.0926	0			
	Comparison	0				63	.569	.499	.331	0			
OCP2_03 T conducts phonemic awareness section orally (RLL-02)	*RLL*	0				52	.832	.377	.230* *	0			
	Comparison	0				62	.640	.484	.017	0			
OCP2_04 T asks students to manipulate sounds & letters in a word (RLL-2)	*RLL*	0				52	.830	.379	.308** **	0			
	Comparison	0				56	.514	.504	.002	0			
OCP2_06 T shows the letter, says its name then its sound (RLL-3)	*RLL*	0				52	.889	.317	.340** ***	0			
	Comparison	0				59	.589	.496	.000	0			
OCP2_07 T asks students to read, say sounds & names of other letters (RLL-3)	*RLL*	0				52	.832	.377	.234* *	0			
	Comparison	0				63	.635	.485	.014	0			
OCP2_09 T underlines letters with finger while reading (RLL-4)	*RLL*	0				51	.882	.326	.431** ***	0			
	Comparison	0				63	.444	.501	.000	0			

VARIABLE	TREATMENT GROUP	2009				2010				2011			
		Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)	Weighted sample n	Weighted mean	Std. Deviation	Kendall's tau (p-level below)
OCP2_10 T asks students the meaning of words (RLL-4)	*RLL*	0				52	.886	.321	.595** ***	0			
	Comparison	0				58	.252	.438	.000	0			
OCP2_11 T reviews decoded & sight words already studied with students (RLL-4)	*RLL*	0				52	.915	.281	.508** ***	0			
	Comparison	0				60	.417	.497	.000	0			
OCP2_18 T re-reads text and asks comprehension & vocab questions (RLL-6)	*RLL*	0				51	.813	.394	.345** ***	0			
	Comparison	0				63	.506	.504	.000	0			
OCP2_20 T asks questions whose answers can be found in the text (RLL-6)	*RLL*	0				51	.876	.333	.377** ***	0			
	Comparison	0				63	.513	.504	.000	0			
OCP2_21 T asks inferential questions - answers are NOT in the text (RLL-6)	*RLL*	0				52	.599	.495	.499** ***	0			
	Comparison	0				58	.110	.315	.000	0			
OCP2_23 T permits students to read booklets in a low voice (RLL-7)	*RLL*	0				52	.320	.471	0.0045	0			
	Comparison	0				60	.299	.462	.963	0			
OCP2_24 T helps students having difficulties to read correctly (RLL-7)	*RLL*	0				51	.792	.410	.078	0			
	Comparison	0				62	.774	.422	.419	0			
OCP2_25 T asks students to find a word with 'letter of the day' in it (RLL-7)	*RLL*	0				51	.768	.426	.353** ***	0			
	Comparison	0				56	.453	.502	.000	0			
OCP2_27 T asks students to find the 'word of the day' in a sentence (RLL-7)	*RLL*	0				52	.659	.479	.437** ***	0			
	Comparison	0				63	.249	.436	.000	0			
OCP2_29 T asks students to make meaningful words with specific letters (RLL-7)	*RLL*	0				51	.734	.446	.536** ***	0			
	Comparison	0				63	.202	.404	.000	0			
OCP3_07 Lesson is aligned with RLL program	*RLL*	0				52	.945	.231	.610** ***	0			
	Comparison	0				62	.390	.492	.000	0			
RLL1_pct Proportion of RLL Step 1 actions observed	*RLL*	0				52	.663	.420	0.1089	0			
	Comparison	0				63	.594	.405	.228	0			
RLL2_pct Proportion of RLL Step 2 actions observed	*RLL*	0				52	.831	.358	.267** **	0			
	Comparison	0				62	.598	.459	.004	0			
RLL3_pct Proportion of RLL Step 3 actions observed	*RLL*	0				52	.861	.328	.272** **	0			
	Comparison	0				63	.625	.469	.004	0			
RLL4_pct Proportion of RLL Step 4 actions observed	*RLL*	0				52	.895	.276	.553** ***	0			
	Comparison	0				63	.369	.401	.000	0			
RLL6_pct Proportion of RLL Step 6 actions observed	*RLL*	0				52	.762	.317	.399** ***	0			
	Comparison	0				63	.466	.327	.000	0			
RLL7_pct Proportion of RLL Step 7 actions observed	*RLL*	0				52	.625	.347	.372** ***	0			
	Comparison	0				63	.383	.267	.000	0			

* p < 0.05; ** p < 0.01; *** p < 0.001.

a. Sample n's and statistics are adjusted using Finite Population Correction (FPC) to approximate school populations distribution of language groups.

b. t cannot be computed because the standard deviations of both groups are 0.

Attachment 4.4. PROGRESSION OF SCHOOL-LEVEL CHARACTERISTICS ACROSS STUDY YEARS, BY TREATMENT GROUP

VARIABLE	Treatment group	School-level paired t-tests: 2009 by 2011[a]					School-level paired t-tests: 2010 by 2011[a]				
		Mean 2009	Mean 2011	t	df	p-level	Mean 2010	Mean 2011	t	df	p-level
B2_06 The school has drinking water	*RLL*	.714	.714	0.000	27	n.s.	.600	.600	0.000	39	n.s.
	Comparison	***.457***	***.771***	***3.191***	***34***	**	.725	.775	.813	39	n.s.
B2_07 The school has electricity	*RLL*	.321	.250	-.570	27	n.s.	.132	.184	1.000	37	n.s.
	Comparison	.171	.257	1.000	34	n.s.	.125	.225	1.433	39	n.s.
B1_05t Student enrollment - Total	*RLL*						462.30	455.68	-.459	39	n.s.
	Comparison						384.73	367.45	-.843	39	n.s.
B1_05gpi Gender parity in student enrollment (girls / boys)	*RLL*						.974	.923	-1.130	39	n.s.
	Comparison						***1.066***	***.948***	***-2.416***	***39***	*
B1_03 Years since school became a curriculum school	***RLL***						***5.282***	***6.795***	***2.784***	***38***	***
	Comparison						5.103	6.359	1.769	38	n.s.
B2_05 School received books written in national language	*RLL*	.893	.929	.441	27	n.s.	.875	.925	1.000	39	n.s.
	Comparison	.857	.686	-1.528	34	n.s.	.900	.800	-1.669	39	n.s.
A1_06 Principal's years of being a School Principal	*RLL*	8.069	8.414	.232	28	n.s.	8.025	7.900	-.129	39	n.s.
	Comparison	7.457	7.771	.249	34	n.s.	6.200	7.200	1.095	39	n.s.
A1_11 School Principal received training to be a school School Principal	***RLL***	.615	.423	-1.309	25	n.s.	***.625***	***.350***	***-3.846***	***39***	***
	Comparison	.452	.323	-1.072	30	n.s.	***.487***	***.333***	***-2.226***	***38***	*
A1_12a School Principal trained in national languages teaching	*RLL*	.929	.750	-1.987	27	n.s.	.868	.816	-.627	37	n.s.
	Comparison	.941	.824	-1.436	33	n.s.	.789	.789	0.000	37	n.s.
A1_12c School Principal participated in an IEP training	*RLL*						.821	.846	.330	38	n.s.
	Comparison						.075	.075	0.000	39	n.s.
A2_01 School Principal trained teachers in applying the curriculum school program	***RLL***	***.393***	***.857***	***4.264***	***27***	***	***.300***	***.850***	***5.448***	***39***	***
	Comparison	***.571***	***.314***	***-2.714***	***34***	**	.410	.385	-.330	38	n.s.
A2_03b N of classes observed by School Principal in previous week	***RLL***						***2.675***	***1.950***	***-2.551***	***39***	*
	Comparison						2.949	2.385	-1.893	38	n.s.
A2_04 School Principal organized Conseil des maîtres in past 3 months	*RLL*						.925	.900	-.443	39	n.s.
	Comparison						.950	.900	-1.000	39	n.s.

* p < 0.05; ** p < 0.01; *** p < 0.001.

a. Data are unweighted, and only paired cases pairwise are included in these analyses. Thus, statistics may differ from those in other tables which display weighted values or single-year full samples.

Attachment 4.5. PROGRESSION OF GRADE 1 TEACHER AND CLASSROOM CHARACTERISTICS ACROSS STUDY YEARS, BY TREATMENT GROUP

VARIABLE	TREATMENT GROUP	Paired t-tests: Evolution 2009 to 2011[a]					Paired t-tests: Evolution 2010 to 2011[a]				
		Mean 2009	Mean 2011	t	df	p-level	Mean 2010	Mean 2011	t	df	p-level
Teacher's general pedagogical background											
C2_01 Teacher possesses DEF	*RLL*	.900	.800	-.809	19	n.s.	.865	.865	0.000	36	n.s.
	Comparison	.720	.800	.700	24	n.s.	.889	.833	-0.702	35	n.s.
C2_02 Teacher possesses higher degree (DEF+4 or Bac +4)	*RLL*	.150	.250	.809	19	n.s.	.351	.324	-.255	36	n.s.
	Comparison	**.080**	**.320**	**2.295**	**24**	*	.444	.306	-1.405	35	n.s.
C1_04 Years of teaching experience	*RLL*	7.86	10.14	1.303	20	n.s.	7.472	9.528	1.323	35	n.s.
	Comparison	9.76	7.88	-1.085	24	n.s.	6.611	8.667	1.476	35	n.s.
C1_01 Teacher is female	*RLL*	.286	.619	1.919	20	n.s.	.514	.486	-0.274	34	n.s.
	Comparison	.320	.560	1.659	24	n.s.	.528	.472	-0.572	35	n.s.
Pedagogical leadership support provided to the teacher											
C6_01 Director (or deputy) reviews lesson plan	*RLL*	1.000	.952	-1.000	20	n.s.	.972	.917	-1.435	35	n.s.
	Comparison	1.000	.960	-1.000	24	n.s.	.944	.917	-0.572	35	n.s.
C6_03b Lesson plans reviewed every week or more	*RLL*	1.00b	1.00b				.889	.972	1.357	35	n.s.
	Comparison	1.00b	1.00b				1.00b	1.00[b]			
C6_04 Director or Assistant Director observes classrooms	*RLL*	.952	.810	-1.369	20	n.s.	.778	.833	.572	35	n.s.
	Comparison	.833	.833	0.000	23	n.s.	.861	.806	-0.702	35	n.s.
C6_06a Class observed every 2-3 months or less	*RLL*	.238	.143	-1.000	20	n.s.	.167	.139	-.329	35	n.s.
	Comparison	.136	.000	-1.821	21	n.s.	.250	.083	-1.972	35	n.s.
C6_06b Class observed every week or more	*RLL*	.238	.476	2.024	20	n.s.	.389	.472	.723	35	n.s.
	Comparison	.364	.455	.526	21	n.s.	.472	.472	0.000	35	n.s.
C6_07a Teacher received one or more pedagogical visits in past week	*RLL*						.471	.412	-.466	33	n.s.
	Comparison						.343	.257	-0.770	34	n.s.
Curriculum and RLL program training and support received											
C2_03a T has received training in national languages	*RLL*	1.000	.952	-1.000	20	n.s.	.944	.806	-1.711	35	n.s.
	Comparison	**.917**	**.542**	**-3.191**	**23**	**	.806	.611	-2.023	35	n.s.
C2_05 Followed training with IEP	*RLL*						.778	.667	-.941	35	n.s.
	Comparison						.094	.000	-1.791	31	n.s.
C6_08 T has access to support for national language instruction	*RLL*						.972	.917	-1.000	35	n.s.
	Comparison						.939	.939	0.000	32	n.s.

VARIABLE	TREATMENT GROUP	Paired t-tests: Evolution 2009 to 2011[a]					Paired t-tests: Evolution 2010 to 2011[a]				
		Mean 2009	Mean 2011	t	df	p-level	Mean 2010	Mean 2011	t	df	p-level
Curriculum and RLL program material inputs available											
B3_04a Received books from Ministry for teaching in national language	*RLL*	.381	.476	.698	20	n.s.	.278	.500	1.848	35	n.s.
	Comparison	.440	.400	-.296	24	n.s.	.667	.528	-1.405	35	n.s.
B3_07a Fewer than 25% of students in class have national language schoolbook	*RLL*	.889	.722	-1.374	17	n.s.	.833	.778	-.702	35	n.s.
	Comparison	.810	.952	1.369	20	n.s.	**.833**	**.944**	**2.092**	**35**	*
B3_07c Over 75% of students in class have national language schoolbook	*RLL*	.000	.167	1.844	17	n.s.	.083	.139	.813	35	n.s.
	Comparison	.000	.048	1.000	20	n.s.	.083	.000	-1.784	35	n.s.
Teacher's facility of teaching in national language											
C1_07a Language of instruction is Teacher's maternal language	*RLL*						.857	.829	-.329	34	n.s.
	Comparison						.667	.583	-0.902	35	n.s.
C1_05 Years of teaching experience in national language	***RLL***	**3.143**	**4.333**	**2.180**	**20**	*	**2.667**	**4.639**	**2.791**	**35**	**
	Comparison	3.435	3.565	.139	22	n.s.	2.861	3.944	1.564	35	n.s.
General good classroom practices supported by RLL											
C3_03a Teacher seldom or never uses French in class	***RLL***						**.917**	**.750**	**-2.236**	**35**	*
	Comparison						**.833**	**.611**	**-3.162**	**35**	**
C3_03b Teacher often or always uses French in class	*RLL*						.057	.171	1.675	34	n.s.
	Comparison						.139	.250	1.435	35	n.s.
OCP3_01 Lesson is participatory	*RLL*						.941	.941	0.000	33	n.s.
	Comparison						**.816**	**1.000**	**2.890**	**37**	**
OCP3_06 Lesson is aligned with program's 'lesson of the day'	*RLL*						.941	.941	0.000	33	n.s.
	Comparison						.757	.865	1.071	36	n.s.
OCP3_08 Lesson was prepared before class	*RLL*						.824	.941	1.676	33	n.s.
	Comparison						.711	.895	2.018	37	n.s.
OCP3_09 T pauses to ensure that students understand	***RLL***						**.636**	**.879**	**2.484**	**32**	*
	Comparison						.711	.711	0.000	37	n.s.
OCP3_10 T accepts the responses of students	*RLL*						.971	.941	-.572	33	n.s.
	Comparison						**.763**	**.974**	**2.737**	**37**	**
OCP3_11 T summarizes students responses	***RLL***						**.576**	**.848**	**3.032**	**32**	**
	Comparison						**.405**	**.703**	**2.577**	**36**	*

VARIABLE	TREATMENT GROUP	Paired t-tests: Evolution 2009 to 2011[a]					Paired t-tests: Evolution 2010 to 2011[a]				
		Mean 2009	Mean 2011	t	df	p-level	Mean 2010	Mean 2011	t	df	p-level
OCP3_12 T is attentive to errors & corrects them in line with instructions	*RLL*						.957	.957	0.000	22	n.s.
	Comparison						.947	.974	0.572	37	n.s.
OCP3_13 T circulates among tables to make sure all students are reading	*RLL*						.588	.765	1.643	33	n.s.
	Comparison						.237	.421	1.865	37	n.s.
OCP3_14 T gives independent work to individual learners and groups	*RLL*						.735	.765	.297	33	n.s.
	Comparison						.711	.895	2.018	37	n.s.
OCP3_15 Lesson is written on blackboard before the start of class	***RLL***						**.515**	**.758**	**2.268**	**32**	*
	Comparison						**.447**	**.711**	**2.699**	**37**	**
OCP3_16 There is a literate environment in the classroom	*RLL*						.618	.647	.297	33	n.s.
	Comparison						.526	.579	0.529	37	n.s.
OCP3_17 The physical space is organized to favor learning	*RLL*						.765	.853	1.000	33	n.s.
	Comparison						**.711**	**.974**	**3.224**	**37**	**
OCP3_18 Class routines have been established	***RLL***						**.848**	**.970**	**2.101**	**32**	*
	Comparison						**.811**	**.973**	**2.233**	**36**	*
OCP3_19 Class atmosphere is friendly and relaxed	*RLL*						.912	.912	0.000	33	n.s.
	Comparison						**.658**	**.974**	**4.132**	**37**	***
GTP14_pct Proportion of 14 general good teaching behaviors observed	***RLL***						**.767**	**.866**	**2.864**	**33**	**
	Comparison						**.658**	**.833**	**4.674**	**37**	***
Student engagement and use of student-centered activities in classroom practices											
C4_01_G1G2 Class enrollment	*RLL*	69.370	63.043	-1.498	45	n.s.	**77.943**	**66.086**	**-2.992**	**34**	**
	Comparison	63.674	58.739	-1.662	45	n.s.	58.829	58.000	-0.263	34	n.s.
C4_05 Proportion of students present in class on day of visit	*RLL*	.880	.832	-.586	19	n.s.	.820	.876	.558	32	n.s.
	Comparison	.874	.856	-.314	26	n.s.	.881	.866	-0.440	33	n.s.
C4_05a Fewer than 80% of students present in class on day of visit	***RLL***	**.450**	**.250**	**-2.179**	**19**	*	.273	.273	0.000	32	n.s.
	Comparison	.444	.259	-1.991	26	n.s.	.206	.235	0.329	33	n.s.
C4_05b Over 95% of students present in class on day of visit	*RLL*	.400	.550	1.000	19	n.s.	.333	.424	.828	32	n.s.
	Comparison	.333	.333	0.000	26	n.s.	.471	.324	-1.304	33	n.s.
B3_09b Over 75% of students have chalk & slate on day of visit	***RLL***						**.667**	**.889**	**2.467**	**35**	*
	Comparison						.686	.771	0.828	34	n.s.
SENG_pct Proportion of 3 student engagement behaviors observed	*RLL*						.892	.892	.000	33	n.s.
	Comparison						**.658**	**.982**	**5.444**	**37**	***

VARIABLE	TREATMENT GROUP	Paired t-tests: Evolution 2009 to 2011[a]					Paired t-tests: Evolution 2010 to 2011[a]				
		Mean 2009	Mean 2011	t	df	p-level	Mean 2010	Mean 2011	t	df	p-level
Fidelity to specific RLL-supported classroom practices											
RLL1_pct Proportion of RLL Step 1 actions observed	*RLL*						.618	.574	-.501	33	n.s.
	Comparison						.447	.605	1.639	37	n.s.
RLL2_pct Proportion of RLL Step 2 actions observed	*RLL*						.912	.779	-1.657	33	n.s.
	Comparison						.513	.487	-0.285	37	n.s.
RLL3_pct Proportion of RLL Step 3 actions observed	*RLL*						.897	.912	.255	33	n.s.
	Comparison						.592	.618	0.279	37	n.s.
RLL4_pct Proportion of RLL Step 4 actions observed	*RLL*						.892	.814	-1.277	33	n.s.
	Comparison						.412	.535	1.404	37	n.s.
RLL6_pct Proportion of RLL Step 6 actions observed	*RLL*						.770	.750	-.263	33	n.s.
	Comparison						.388	.474	1.052	37	n.s.
RLL7_pct Proportion of RLL Step 7 actions observed	*RLL*						.662	.653	-.114	33	n.s.
	Comparison						**.340**	**.474**	**2.082**	**37**	*****

* p < 0.05; ** p < 0.01; *** p < 0.001.

a. Data are unweighted, and only paired cases pairwise are included in these analyses. Thus, statistics may differ from those in other tables which display weighted values or single-year full samples.

b. The correlation and t cannot be computed because there are no valid pairs.

Attachment 4.6. PROGRESSION OF GRADE 2 TEACHER AND CLASSROOM CHARACTERISTICS ACROSS STUDY YEARS, BY TREATMENT GROUP

VARIABLE	TREATMENT GROUP	Paired samples t-tests: Grade 2 Evolution 2009 to 2011					Paired samples t-tests: Grade 2 Evolution 2010 to 2011				
		Mean 2009	Mean 2011	t	df	p-value	Mean 2010	Mean 2011	t	df	p-value
Teacher's general pedagogical background											
C2_01 Teacher possesses DEF	*RLL*	.826	.833	-.44	17	n.s.	.897	.897	.00	28	n.s.
	Comparison	.913	.826	-.81	22	n.s.	.794	.882	1.00	33	n.s.
C2_02 Teachers possesses higher degree (DEF+4 or Bac +4)	*RLL*	.391	.389	.00	17	n.s.	.517	.448	-.44	28	n.s.
	Comparison	.304	.391	.53	22	n.s.	.353	.471	1.07	33	n.s.
C1_04 Years of teaching experience	*RLL*	7.39	7.89	-1.57	17	n.s.	9.21	7.10	-1.42	28	n.s.
	Comparison	8.91	7.39	-1.36	22	n.s.	7.48	6.58	-1.16	32	n.s.
C1_01 Teacher is female	*RLL*	.652	.500	.00	17	n.s.	.621	.586	-.30	28	n.s.
	Comparison	.391	.652	1.55	22	n.s.	**.471**	**.647**	**2.24**	**33**	*
Pedagogical leadership support provided to the teacher											
C6_01 Director (or deputy) reviews lesson plan	*RLL*	.957	1.00[b]			n.s.	.966	1.000	1.00	28	n.s.
	Comparison	1.000	.957	-1.00	22	n.s.	1.000	.912	-1.79	33	n.s.
C6_03b Lesson plans reviewed every week or more	*RLL*	.957	.889	-1.46	17	n.s.	.862	.931	1.00	28	n.s.
	Comparison	1.000	.957	-1.00	22	n.s.	1.000	.912	-1.79	33	n.s.
C6_04 Director or Assistant Director observes classrooms	*RLL*	.913	.944	1.00	17	n.s.	.862	.931	.81	28	n.s.
	Comparison	.870	.913	.44	22	n.s.	.794	.824	.27	33	n.s.
C6_06a Class observed every 2-3 months or less	***RLL***	.190	.000	-1.86	15	n.s.	**.310**	**.034**	**-3.27**	**28**	**
	Comparison	.238	.190	-.37	20	n.s.	.147	.206	.70	33	n.s.
C6_06b Class observed every week or more	*RLL*	.238	.563	1.73	15	n.s.	.345	.448	.77	28	n.s.
	Comparison	.238	.238	.00	20	n.s.	.500	.353	-1.41	33	n.s.
C6_07a Teacher received one or more pedagogical visits in past week	*RLL*						.448	.414	-.27	28	n.s.
	Comparison						.147	.294	1.41	33	n.s.
Curriculum and RLL program training and support received											
C2_03a T has received training in national languages	*RLL*	.545	.765	-1.85	16	n.s.	.931	.793	-1.68	28	n.s.
	Comparison	**1.000**	**.545**	**-4.18**	**21**	***	**.909**	**.636**	**-3.46**	**32**	**
C2_05 Followed training with IEP	*RLL*						.828	.759	-.70	28	n.s.
	Comparison						.000	.032	1.00	30	n.s.
C6_08 T has access to support for national language instruction	*RLL*	1.00[b]	1.00[b]				.963	1.000	1.00	26	n.s.
	Comparison	.913	.913	.00	22	n.s.	.939	.909	-.44	32	n.s.
Curriculum and RLL program material inputs available											
B3_04a Received books from Ministry for teaching in national language	*RLL*	.476	.647	2.07	16	n.s.	.667	.667	.00	26	n.s.
	Comparison	.381	.476	.57	20	n.s.	.676	.559	-1.16	33	n.s.

VARIABLE	TREATMENT GROUP	Paired samples t-tests: Grade 2 Evolution 2009 to 2011					Paired samples t-tests: Grade 2 Evolution 2010 to 2011				
		Mean 2009	Mean 2011	t	df	p-value	Mean 2010	Mean 2011	t	df	p-value
B3_07a Fewer than 25% of students in class have national language schoolbook	***RLL***	**.944**	**.385**	**-3.21**	**12**	**	**.724**	**.483**	**-2.25**	**28**	*
	Comparison	.944	.944	.00	17	n.s.	.765	.853	1.14	33	n.s.
B3_07c Over 75% of students in class have national language schoolbook	***RLL***	**.056**	**.538**	**3.74**	**12**	**	.276	.414	1.16	28	n.s.
	Comparison	.000	.056	1.00	17	n.s.	.059	.088	.57	33	n.s.
Teacher's facility of teaching in national language											
C1_07a Language of instruction is Teacher's maternal language	*RLL*						.786	.857	.81	27	n.s.
	Comparison						.813	.656	-1.97	31	n.s.
C1_05 Years of teaching experience in national language	*RLL*	4.043	3.833	1.25	17	n.s.	3.655	3.759	.13	28	n.s.
	Comparison	4.609	4.043	-.45	22	n.s.	3.118	3.853	1.61	33	n.s.
General good classroom practices supported by RLL											
C3_03a Teacher seldom or never uses French in class	*RLL*						.759	.724	-.33	28	n.s.
	Comparison						.706	.647	-.57	33	n.s.
C3_03b Teacher often or always uses French in class	*RLL*						.111	.185	.81	26	n.s.
	Comparison						.125	.219	1.79	31	n.s.
OCP3_01 Lesson is participatory	*RLL*						.897	.931	.57	28	n.s.
	Comparison						**.743**	**1.000**	**3.43**	**34**	**
OCP3_06 Lesson is aligned with program's 'lesson of the day'	*RLL*						.931	.931	.00	28	n.s.
	Comparison						**.743**	**.971**	**2.76**	**34**	**
OCP3_08 Lesson was prepared before class	*RLL*						.828	.931	1.14	28	n.s.
	Comparison						**.771**	**.943**	**2.24**	**34**	*
OCP3_09 T pauses to ensure that students understand	***RLL***						**.607**	**.964**	**3.38**	**27**	**
	Comparison						**.647**	**.882**	**2.48**	**33**	*
OCP3_10 T accepts the responses of students	*RLL*						.897	.931	.44	28	n.s.
	Comparison						**.743**	**.971**	**3.17**	**34**	**
OCP3_11 T summarizes students responses	***RLL***						**.621**	**.931**	**3.09**	**28**	**
	Comparison						**.314**	**.771**	**3.86**	**34**	***
OCP3_12 T is attentive to errors & corrects them in line with instructions	*RLL*						.952	.952	.00	20	n.s.
	Comparison						**.686**	**.943**	**2.71**	**34**	*
OCP3_13 T circulates among tables to make sure all students are reading	*RLL*						.552	.793	1.89	28	n.s.
	Comparison						**.286**	**.543**	**2.31**	**34**	*
OCP3_14 T gives independent work to individual learners and groups	*RLL*						.931	.793	-1.68	28	n.s.
	Comparison						.743	.914	1.97	34	n.s.

VARIABLE	TREATMENT GROUP	Paired samples t-tests: Grade 2 Evolution 2009 to 2011					Paired samples t-tests: Grade 2 Evolution 2010 to 2011				
		Mean 2009	Mean 2011	t	df	p-value	Mean 2010	Mean 2011	t	df	p-value
OCP3_15 Lesson is written on blackboard before the start of class	***RLL***						**.536**	**.786**	**2.55**	**27**	*
	Comparison						**.629**	**.886**	**2.49**	**34**	*
OCP3_16 There is a literate environment in the classroom	*RLL*						.750	.714	-.33	27	n.s.
	Comparison						.618	.765	1.41	33	n.s.
OCP3_17 The physical space is organized to favor learning	*RLL*						.821	.786	-.37	27	n.s.
	Comparison						**.800**	**.971**	**2.24**	**34**	*
OCP3_18 Class routines have been established	*RLL*						.931	.966	.57	28	n.s.
	Comparison						**.857**	**.971**	**2.09**	**34**	*
OCP3_19 Class atmosphere is friendly and relaxed	*RLL*						.862	.966	1.36	28	n.s.
	Comparison						**.657**	**.943**	**3.26**	**34**	**
GTP14_pct Proportion of 14 general good teaching behaviors observed	*RLL*						.789	.882	1.91	28	n.s.
	Comparison						**.659**	**.891**	**6.41**	**34**	***
Student engagement and use of student-centered activities in classroom practices											
C4_01_G1G2 Class enrollment	*RLL*	55.837	65.174	-1.16	45	n.s.	73.414	75.414	.46	28	n.s.
	Comparison	61.651	55.837	-1.62	42	n.s.	**63.588**	**57.412**	**-2.04**	**33**	*
C4_05 Proportion of students present in class on day of visit	*RLL*	.912	1.024	.81	19	n.s.	.891	.909	.94	27	n.s.
	Comparison	.964	.912	-.81	20	n.s.	.839	.875	1.76	31	n.s.
C4_05a Fewer than 80% of students present in class on day of visit	***RLL***	**.095**	**.100**	**-2.35**	**19**	*	.179	.214	.44	27	n.s.
	Comparison	.238	.095	-1.37	20	n.s.	.281	.188	-1.79	31	n.s.
C4_05b Over 95% of students present in class on day of visit	*RLL*	.381	.650	.90	19	n.s.	.321	.500	1.41	27	n.s.
	Comparison	.619	.381	-1.56	20	n.s.	.344	.469	1.16	31	n.s.
B3_09b Over 75% of students have chalk & slate on day of visit	*RLL*						.759	.897	1.44	28	n.s.
	Comparison						.735	.824	1.00	33	n.s.
SENG_pct Proportion of 3 student engagement behaviors observed	*RLL*						.793	.920	1.55	28	n.s.
	Comparison						**.667**	**1.000**	**4.88**	**34**	***
C5_05 Teacher focused on a small group (% of 15 obs)	***RLL***	**.108**	**.009**	**-2.53**	**20**	*					
	Comparison	**.056**	**.008**	**-2.52**	**24**	*					
C5_06 Teacher focused on a single student (% of 15 obs)	***RLL***	**.171**	**.071**	**-2.31**	**20**	*					
	Comparison	**.197**	**.070**	**-2.98**	**24**	**					
C5_11 Students are reading aloud together (% of 15 obs)	***RLL***	**.041**	**.122**	**3.47**	**20**	**					
	Comparison	.048	.030	-1.23	24	n.s.					
C5_12 One student is reading aloud (% of 15 obs)	***RLL***	**.219**	**.051**	**-3.67**	**20**	**					
	Comparison	.147	.118	-.99	24	n.s.					

VARIABLE	TREATMENT GROUP	Paired samples t-tests: Grade 2 Evolution 2009 to 2011					Paired samples t-tests: Grade 2 Evolution 2010 to 2011				
		Mean 2009	Mean 2011	t	df	p-value	Mean 2010	Mean 2011	t	df	p-value
C5_14 Student(s) writing on blackboard (% 15 obs)	***RLL***	**.041**	**.104**	**2.39**	**20**	*					
	Comparison	.064	.088	1.35	24	n.s.					
C5_15 Students are writing in their notebooks or slate (% of 15 obs)	*RLL*	.060	.113	1.64	20	n.s.					
	Comparison	.112	.065	-1.48	24	n.s.					
C5_17 Students are repeating aloud or reciting (% of 15 obs)	***RLL***	**.015**	**.134**	**4.64**	**20**	***					
	Comparison	**.024**	**.158**	**3.99**	**24**	**					
SCA17_all Number of student-centered activities (out of 7) observed in at least 10% of observation moments	*RLL*	4.286	5.619	1.70	21	n.s.					
	Comparison	**5.120**	**3.600**	**-2.43**	**24**	*					

* p < 0.05; ** p < 0.01; *** p < 0.001.

a. Data are unweighted, and only paired cases pairwise are included in these analyses. Thus, statistics may differ from those in other tables which display weighted values or single-year full samples.

b. The correlation and t cannot be computed because there are no valid pairs.