



USAID | **INDONESIA**
FROM THE AMERICAN PEOPLE

USAID Prioritizing Reform, Innovation, and Opportunities for Reaching Indonesia’s Teachers, Administrators, and Students (USAID PRIORITAS)



ENDLINE MONITORING REPORT, VOLUME 3: An Assessment of Early Grade Reading—

**How Well Children Are Reading in USAID PRIORITAS Districts
(Cohorts 1, 2, and 3)**

May 2017

This publication was produced for review by the United States Agency for International Development. It was prepared by RTI International.

USAID Prioritizing Reform, Innovation, and Opportunities for Reaching Indonesia’s Teachers, Administrators, and Students (USAID PRIORITAS)

Endline Monitoring Report, Volume 3: An Assessment of Early
Grade Reading—How Well Children Are Reading in USAID
PRIORITAS Districts (Cohorts 1, 2, and 3)

Contract AID-497-C-12-00003

Cover Photo:

*An assessor using a tablet to conduct the EGRA with a student at SDN Bukit Tempurung, Aceh
Tamiang.*

[Unless otherwise noted, all photos are taken by USAID PRIORITAS staff or partners.]

Prepared for
USAID/Indonesia

Prepared by
RTI International
3040 Cornwallis Road
Post Office Box 12194
Research Triangle Park, NC 27709-2194
USA

RTI International is a registered trademark and a trade name of Research Triangle Institute.

The author’s views expressed in this publication do not necessarily reflect the views
of the United States Agency for International Development or the United States
Government.

Table of Contents

	Page
LIST OF TABLES	V
LIST OF FIGURES	V
ABBREVIATIONS	VII
EXECUTIVE SUMMARY	1
1 INTRODUCTION	10
2 METHODOLOGY	11
2.1 EARLY GRADE READING ASSESSMENT INSTRUMENTS	11
2.1.1 <i>The Instrument and Protocol</i>	11
2.1.2 <i>EGRA Assessor Training</i>	12
2.1.3 <i>Provincial EGRA Refresher Training</i>	13
2.2 THE SURVEY DESIGN	13
2.3 DATA COLLECTION	15
2.4 STUDY LIMITATIONS	16
3 HOW WELL CHILDREN IN USAID PRIORITAS COHORTS ARE READING AT ENDLINE	18
3.1 SUMMARY SCORES	18
3.1.1 <i>Overall Summary Scores</i>	18
3.1.2 <i>Summary Scores by Cohort</i>	26
3.1.3 <i>Summary Scores by Province</i>	28
3.1.4 <i>Oral Reading Fluency by District</i>	29
3.1.5 <i>Summary Scores by Gender</i>	31
3.2 ANALYSIS BY SUBTASK	32
3.2.1 <i>Letter-Name Knowledge</i>	32
3.2.2 <i>Familiar Word Reading</i>	34
3.2.3 <i>Invented Word Reading</i>	35
3.2.4 <i>Oral Reading Fluency</i>	37
3.2.5 <i>Reading Comprehension</i>	38
3.2.6 <i>Listening Comprehension</i>	41
3.3 INDICATORS OF READING ACHIEVEMENT	43
3.3.1 <i>Regression Analysis of Demographic Indicators of Reading Achievement</i>	43
3.3.2 <i>Strongly Associated Indicators</i>	45
4 HOW WELL TEACHERS ARE TEACHING READING IN THE EARLY GRADES	50
4.1 MONITORING INSTRUMENTS AND PROCEDURES	50
4.2 DESIGN	51
4.3 FINDINGS	51
4.3.1 <i>Early Grade Teachers Demonstrate Good Practice in Teaching (I.R1)</i>	52
4.3.2 <i>Early Grades Reading Materials are Regularly Used (I.R6)</i>	53
4.3.3 <i>School Managers Initiate Activities to Create a School Reading Culture (2.R3)</i>	54
4.4 CORRELATIONS BETWEEN THE QUALITY OF TEACHING AND SCHOOL MANAGEMENT AND STUDENTS’ EGRA SCORES IN SAMPLED GROUPS	56
5 CONCLUSIONS	58
5.1 OBSERVATIONS ON IMPROVING STUDENT READING PERFORMANCE	58
5.2 OBSERVATIONS FOR FUTURE READING STUDIES	59
ANNEX A: ASSESSMENT INSTRUMENT	60
ANNEX B: EARLY GRADE READING ASSESSMENT SCHOOLS	67
ANNEX C: LIST OF ASSESSORS	76
ANNEX D: EGRA IMPLEMENTATION SCHEDULE	78

ANNEX E: DETAILS OF SCHOOL AND TEACHER INDICATORS	79
ANNEX F: DETAILS OF WEIGHTING AND DATA CHANGES FROM BASELINE	81
ANNEX G: CREATION OF COMPARISON GROUP FOR COHORT 3	82
ANNEX H: DETAILS OF EQUATING BASELINE ORAL READING SCORES TO ENDLINE EGRA	85
ANNEX I: RELIABILITY AND VALIDITY	87
ANNEX J: SAMPLE DESCRIPTION	89
ANNEX K: ADDITIONAL STATISTICAL ANALYSES	94

List of Tables

Table 1:	Student Counts by Sampled Group and Cohort Over Time	2
Table 2:	EGRA Subtask Summary, Overall by Intervention Phase and Sampled Group	4
Table 3:	Summary of EGRA Instruments at Intervention Phases	11
Table 4:	Early Grade Reading Assessment Components	12
Table 5:	EGRA Assessor Training Participants.....	13
Table 6:	The Survey Design.....	14
Table 7:	Characteristics of the Overall School Sample	14
Table 8:	Overall School Sample by Cohort	15
Table 9:	Characteristics of the Overall Student Sample.....	15
Table 10:	Overall Student Sample by Cohort.....	16
Table 11:	Summary of Overall Mean Subtask Scores by Cohort.....	21
Table 12:	Percentage of Students with Zero Scores by Cohort	25
Table 13:	The Total Number of Sampled Primary Schools, by Cohort and Year of Monitoring.....	51
Table 14:	The Total Number of Sampled Early Grade Teachers, by Cohort and Year of Monitoring.....	51

List of Figures

Figure 1:	USAID PRIORITAS Data Collections Timeline	1
Figure 2:	Trend of Oral Reading Fluency by Cohort.....	6
Figure 3:	Trend of Percentage of Students Comprehending at least 80% of the Reading Passage by Cohort	6
Figure 4:	Baseline and Endline Mean Scores on Selected Subtasks by Cohort	22
Figure 5:	Baseline and Endline Zero Scores on Selected Subtasks by Cohort.....	24
Figure 6:	Invented Word Decoding Distribution by Cohort and Time	27
Figure 7:	Oral Reading Fluency Distribution by Cohort and Time	27
Figure 8:	Oral Reading Fluency Mean Results by Province, Overall	28
Figure 9:	Oral Reading Fluency by District.....	30
Figure 10:	Baseline and Endline Mean Scores on Selected Subtasks, by Gender.....	31
Figure 11:	Distribution of Sample Scores for Letter-Name Knowledge	33
Figure 12:	Distribution of Sample Scores for Letter Name Knowledge by Cohort.....	34
Figure 13:	Distribution of Sample Scores for Correct Familiar Words per Minute	35
Figure 14:	Distribution of Sample Scores for Invented Words.....	36
Figure 15:	Distribution of Sample Scores for Oral Reading Fluency	38
Figure 16:	Distribution of Reading Comprehension Scores	39
Figure 17:	Reading Comprehension Inferential Question Analysis	40
Figure 18:	Reading Comprehension and Reading Speeds over Time	41
Figure 19:	Percentage of Children Correctly Answering Listening Comprehension Questions, Overall.....	42
Figure 20:	Percentage of Children Correctly Answering Inferential Listening Comprehension Questions, by Cohort	43
Figure 21:	Reading Proficiency Trends over Time and Intervention by School Location, Overall	46
Figure 22:	Reading Proficiency Trends over Time and Intervention by Home Language, Overall	47
Figure 23:	Reading Proficiency Trends over Time and Intervention by Access to Books at Home, Overall	48

Figure 24:	Reading Proficiency Trends over Time and Intervention by Pre-School Attendance, Overall	49
Figure 25:	Percentage of Early Grade Teachers Demonstrating Good Practice in Teaching and Assessing Reading	52
Figure 26:	Percentage of Early Grade Reading Materials are Regularly Used	54
Figure 27:	Percentage of Primary Schools where Managers Initiated Activities to Create a Reading Culture.....	55
Figure 28:	School Characteristics of High and Low Performing Schools	57
Figure 29:	Student Body Characteristics of High and Low Performing Schools.....	57

Abbreviations

C1	Cohort 1
C2	Cohort 2
C3	Cohort 3
CIWPM	Correct Invented Words per Minute
CLPM	Correct Letters per Minute
CWPM	Correct Words per Minute
DBE	Decentralized Basic Education
DIBELS	Dynamic Indicators for Basic Early Literacy Skills
DID	Difference-in-Differences
EFA-FTI	Education for All–Fast-Track Initiative
EGRA	Early Grade Reading Assessment
GOI	Government of Indonesia
IRR	Inter-rater reliability test
MOEC	Ministry of Education and Culture
MORA	Ministry of Religious Affairs
ORF	Oral Reading Fluency
PISA	Program for International Student Assessment
PRIORITAS	Prioritizing Reform, Innovation and Opportunities for Reaching Indonesia’s Teachers, Administrators, and Students
RTI	RTI International (a trade name of Research Triangle Institute)
SD	<i>Sekolah Dasar</i> (secular primary school)
SE	Standard Error
SMP	<i>Sekolah Menengah Pertama</i> (secular junior secondary school)
TK	<i>Taman Kanak-Kanak</i> (secular pre-school)
TTI	Teacher Training Institute
US	United States
USAID	United States Agency for International Development
WPM	Words per minute
YLAI	<i>Yayasan Literasi Anak Indonesia</i> (Indonesian Children’s Literacy Foundation)

This page intentionally left blank

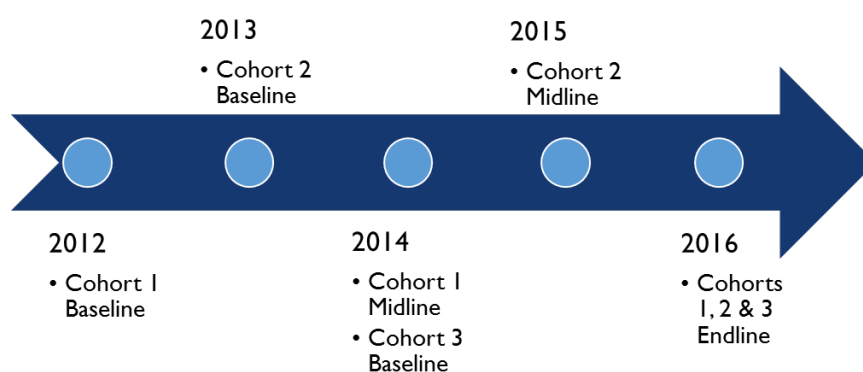
Executive Summary

In late 2016, the United States Agency for International Development-funded Prioritizing Reform, Innovation and Opportunities for Reaching Indonesia’s Teachers, Administrators, and Students (USAID PRIORITAS) project conducted an endline study of early grade reading levels in previously selected districts in Cohorts 1, 2, and 3 to assess:

- Improvements, over time, in children’s reading performance in the early grades, within and across sampled schools;¹
- Improvements, over time, in children’s reading performance in the early grades, resulting from the USAID PRIORITAS intervention; and
- How, over time and within and across sampled schools, teachers are teaching children in the early grades to read.

The purpose of this study is to assess the project interventions for early grade reading in all USAID PRIORITAS schools at endline. Implementation for Cohorts 1 and 2 took place in seven provinces: Aceh, North Sumatra, Banten, West Java, Central Java, East Java, and South Sulawesi. Implementation for Cohort 3 took place in North Sumatra and East Java. The years in which baseline and midline assessments were conducted differ for each cohort, but all endline assessments were conducted in late 2016. **Figure 1** provides a detailed description of USAID PRIORITAS assessment timelines.

Figure 1: USAID PRIORITAS Data Collections Timeline



Along with the introduction and methodology in the first two sections, this report presents study assessment results in two sections. Section 3 examines improvements, if any, in how well children are reading according to baseline and endline Early Grade Reading Assessment (EGRA) results, within and across sampled groups, to determine the impact of USAID PRIORITAS intervention. Section 4 discusses the findings about how well early grade teachers teach reading, over time, in sampled schools and identifies key traits of teachers and schools where students demonstrate high reading performance on the EGRA. A final section consists of a reflection on where future early grade reading work in Indonesia should focus, as well as makes design and implementation recommendations for future intervention studies similar to USAID PRIORITAS.

¹ Sampled schools throughout this report refer both to partner schools and to comparison schools that were sampled in the Early Grade Reading Assessment (EGRA).

How well are children reading in the early grades?

In follow-up and conclusion to all prior assessments for each cohort, the reading ability of grade 3 children in USAID PRIORITAS schools was assessed in an endline survey using the USAID PRIORITAS-developed EGRA. The endline survey was administered four years after baseline for Cohort 1, three years after baseline for Cohort 2, and two years after baseline for Cohort 3. The EGRA results reported in this document reflect the 2016 school year endline measurements of student performance in key pre-reading and reading skills among grade 3 students in Cohort 1, 2, and 3 partner and comparison schools. In addition, baseline and midline data is used, where available, to show improvement over the varying years of program implementation. The counts for each sampled group, by cohort at each point of data collection, can be found in **Table 1** below.

Table 1: Student Counts by Sampled Group and Cohort Over Time

	Cohort 1			Cohort 2			Cohort 3	
	Baseline	Midline	Endline	Baseline	Midline	Endline	Baseline	Endline
Comparison	2,006	1,993	1,927	1,766	1,739	1,734		
Partner	2,058	2,070	2,069	1,804	1,816	1,793	651	658

The EGRA consists of six subtasks that measure early reading skills. The following reported results focus on the overall results, with all cohorts combined; notes about specific cohort results will follow. Observed results revealed promising gains in key pre-reading and comprehension skills—letter name knowledge, familiar word reading, invented word decoding, oral reading fluency, reading comprehension, and listening comprehension. For the grade 3 EGRA, **Table 2** below shows that, on average, students in partner and comparison schools across all cohorts saw significant growth in all subtasks between baseline and endline. Differences in gains for pre-reading tasks from baseline to endline in letter-name knowledge and invented word decoding were the largest, with gains ranging from around +4.5 correct letters per minute (clpm) for letter-name knowledge and around +5.4 correct words per minute (cwpm) for invented word decoding for all sampled schools.

In the other pre-reading task of familiar word reading, students in sampled schools saw slightly smaller, yet significant increases of at least +2.1 correct words per minute (cwpm). For reading text passages, students in the sampled partner and comparison schools minimally increased in oral reading fluency (ORF) between baseline and midline. This consistent decrease in ORF between baseline and midline may have been due to the introduction of the book reading culture in Module 2 (after 2014 for Cohort 1 and 2015 for Cohort 2); the focus of this training was on reading comprehension. As such, students were slowing down when reading and attending to the meaning of the text. This theory has support as shown in **Figure 3**, where reading comprehension rates of 80%, or better, significantly increased from baseline to midline, but minimally increased from midline to baseline.

By endline, students, both in partner and in comparison schools, increased their ORF by around +4 cwpm from baseline scores. This general increase, both in comparison and in partner schools, in 2016 could be explained by a decree issued by the Ministry of Education and Culture in 2015 that encouraged schools to implement 15-minute reading of non-textbooks daily before school starts. This trend of average ORF over time for each cohort is depicted in **Figure 2** below.

Students' ability to understand what they read averaged 4.0 out of 5 questions (80%) for partner schools and 3.8 out of 5 questions (76%) for comparison schools at endline; this score represents an increase of at least +0.5 for each sampled group compared to baseline. The

percentage of students scoring at least 80% on reading comprehension also significantly increased by around +20% for all sampled schools at endline. At endline, children in sampled partner and comparison schools achieved an average listening comprehension score of 2.6 correct answers out of 3 questions asked (85%)—an increase of roughly +1 correct answer from baseline, regardless of sampled group. Similarly, the percentage of students who could not answer any of the listening comprehension questions at baseline significantly dropped by between -11% and -15% for partner and comparison schools, respectively, at endline.

Zero scores reflect students' reading ability improvements. Overall, zero scores decreased from baseline to endline among most subtasks, regardless of cohort. At endline, significantly fewer partner school students (1.7%) were unable to read a single word in a connected passage (ORF = 0) compared to comparison school students (3.1%). Comprehension skills significantly improved both in partner and in comparison schools. The percentage of students unable to comprehend any of a listening passage decreased by at least -10% from baseline; at endline, only 2% of partner school students and 3% of comparison school students were unable to comprehend a listening passage. Similarly, the ability to comprehend a reading passage also increased at endline, with the percentage of students unable to comprehend any of the reading passage decreasing by around -1% in each sampled group. Values for zero scores at each observation phase are detailed for all subtasks in **Table 2**.

Overall, while students in each sampled group saw average improvements above the baseline scores at about the same rate, students in sampled partner schools scored significantly better on all six subtasks compared to students in sampled comparison schools. The similar rate of improvement of student scores, both in partner as well as in comparison schools, could be explained by various factors. First, many districts have been touting the USAID PRIORITAS training as an example for all schools to follow. In addition to dissemination training from USAID PRIORITAS, comparison schools also received other similar training from the Government of Indonesia (GOI) or from other donors or foundations. The data collected by the project monitoring team shows that 71% of the principals and teachers of comparison schools had received training, some of which included dissemination of the USAID PRIORITAS good practices. Second, some of the project facilitators are from comparison schools, and no doubt, they would have implemented good practices they had acquired from training in their own schools. Third, it could be that significant improvements need more time to be observed, as the third round of school training, which specifically focuses on early grade literacy, was implemented only months before the endline EGRA data collection. The cascade training model, involving three levels of training from the national to the school level, needs time to be implemented, and the results also need time to be evident in schools. Another explanation could be that the assessment instrument was designed below the students reading skills achievement level and, therefore, may not have been able to distinguish students' ability in higher level reading skills.

Table 2: EGRA Subtask Summary, Overall by Intervention Phase and Sampled Group

Subtask	Sampled Group	Mean (SE)			% Zero Scores (SE)		
		Baseline	Midline – C1 & C2 Only	Endline	Baseline	Midline – C1 & C2 Only	Endline
Letter-Name Knowledge (CLPM)	Comparison	84.2 (0.28)	86.8 (0.32)*	88.7 (0.32)*	0.5% (0.09)	0.2% (0.05)	0.1% (0.04)*
	Partner	86.4 (0.28) ⁺	87.5 (0.31)	91.1 (0.30) ⁺⁺	0.2% (0.05)	0.2% (0.05)	0.1% (0.05)
Familiar Word Reading (CWPM)	Comparison	66.4 (0.32)	66.8 (0.36)	69.0 (0.36)*	3.3% (0.21)	2.9% (0.18)	2.9% (0.18)
	Partner	71.2 (0.32) ⁺	70.8 (0.36) ⁺	73.3 (0.33) ⁺⁺	2.0% (0.15) ⁺	2.2% (0.18) ⁺	1.5% (0.13) ⁺
Invented Word Decoding (CIWPM)	Comparison	33.7 (0.19)	38.5 (0.25)*	39.6 (0.24)*	5.9% (0.27)	5.8% (0.25)	4.9% (0.24)*
	Partner	36.7 (0.20) ⁺	40.5 (0.24) ⁺⁺	41.8 (0.22) ⁺⁺	4.0% (0.22) ⁺	4.3% (0.28) ⁺	2.6% (0.17) ⁺⁺
Oral Reading Fluency (ORF)	Comparison	60.0 (0.30)	61.1 (0.34)	64.4 (0.35)*	3.3% (0.19)	3.8% (0.20)	3.1% (0.18)
	Partner	65.5 (0.32) ⁺	65.4 (0.36) ⁺	69.2 (0.33) ⁺⁺	2.2% (0.17) ⁺	2.9% (0.21) ⁺⁺	1.7% (0.14) ⁺
Reading Comprehension (5)	Comparison	3.2 (0.02)	3.7 (0.02)*	3.8 (0.02)*	6.8% (0.29)	4.6% (0.23)*	5.2% (0.24)*
	Partner	3.5 (0.02) ⁺	3.9 (0.02) ⁺⁺	4.0 (0.02) ⁺⁺	3.9% (0.25) ⁺	3.0% (0.23) ⁺⁺	3.1% (0.19) ⁺
Listening Comprehension (3)	Comparison	1.5 (0.01)	2.5 (0.01)*	2.5 (0.01)*	17.9% (0.48)	1.8% (0.15)*	3.0% (0.24)*
	Partner	1.7 (0.01) ⁺	2.6 (0.01) ^{*#}	2.6 (0.01) ^{++#}	12.9% (0.44) ⁺	1.8% (0.15) ^{*#}	2.0% (0.17) ^{++#}
80% or Better on Reading Comprehension	Comparison	48.2% (0.61)	66.8% (0.60)*	68.4% (0.58)*	N/A		
	Partner	56.2% (0.66) ⁺	71.9% (0.64) ⁺⁺	74.2% (0.56) ⁺⁺			

⁺ Significant difference between partner and comparison sampled group at time point, $\alpha = 0.01$.

^{*} Significant difference between baseline and mid-/endline within partner or comparison sampled group, $\alpha = 0.01$.

[#] Significant difference-in-difference (DID) between partner and comparison sampled group growth over time, $\alpha = 0.01$.

C = Cohort; SE = Standard Error; CLPM = Correct Letters per Minute; CWPM = Correct Words per Minute; CIWPM = Correct Invented Words per Minute; ORF = Oral Reading Fluency.

N/A = not applicable

Differences among cohorts

Each cohort presented a different story about the performance of students. Generally, Cohort 3 had stronger performing students when compared to the students in Cohorts 1 and 2. Detailed differences among the three cohorts are presented in the following.

Cohort 1: Cohort 1 saw a statistically significance increase of approximately +4 clpm in letter-name knowledge and approximately +4.5 cwpm in invented word decoding in all sampled schools. Students in comparison schools increased their ORF by +5.3 wpm, while students in partner schools increased their ORF by +3.6 cwpm from baseline to endline. Students in sampled schools also saw a significant increase in reading comprehension (approximately +0.6 additional question answered correctly) and listening comprehension (approximately +1 additional question answered correctly) between baseline and endline. Cohort 1 had its largest gains in the percentage of students scoring 80% or better on reading comprehension, with approximately +23% more students, both in partner and in comparison schools, reaching 80% or better for reading comprehension.

Cohort 2. Students in Cohort 2 sampled schools had the largest statistically significant increases between baseline and endline across the cohorts in the pre-reading tasks of letter-name knowledge (+4.4 clpm for comparison schools; +6 clpm for partner schools), familiar word reading (+4.1 cwpm for comparison schools; +5.4 cwpm for partner schools), and invented word decoding (as high as +7.7 cwpm for partner schools, and +6.5 cwpm for comparison schools). Students in Cohort 2 also demonstrated an increase in their ORF by approximately +3.8 cwpm for all sampled schools between baseline and endline. Sampled schools saw the same increases in reading comprehension (approximately +0.5 additional questions answered correctly) and listening comprehension (approximately +1 additional questions answered correctly) as Cohort 1. The percentage of students scoring 80% on reading comprehension increased by approximately 18% for comparison and for partner schools.

Cohort 3. Students in Cohort 3 partner schools saw significant increases of about +3 cwpm in letter-name knowledge and familiar word reading. Partner schools in Cohort 3 also saw a significant increase of approximately +3.2 cwpm in oral reading ability between baseline and endline. Reading comprehension remained at 4.1 questions correct at baseline and endline; this was the highest endline average reading comprehension score observed among the cohorts (Cohort 1 = 3.9; Cohort 2 = 4.0). Similarly, the percentage of students scoring at least 80% on reading comprehension (**Figure 3**) increased from 75.3% to 78.1% at endline, which averaged higher than the same percentage for Cohorts 1 and 2 at endline (Cohort 1 = 72.9%; Cohort 2 = 74.1%). Listening comprehension increased from 2.6 to 2.7 questions answered correctly. The consistent upward trend and strong performance in all subtasks for Cohort 3 could be due to the commitment of the districts in Cohort 3. These districts expressed a keen interest to join the USAID PRIORITAS program.

Figure 2: Trend of Oral Reading Fluency by Cohort

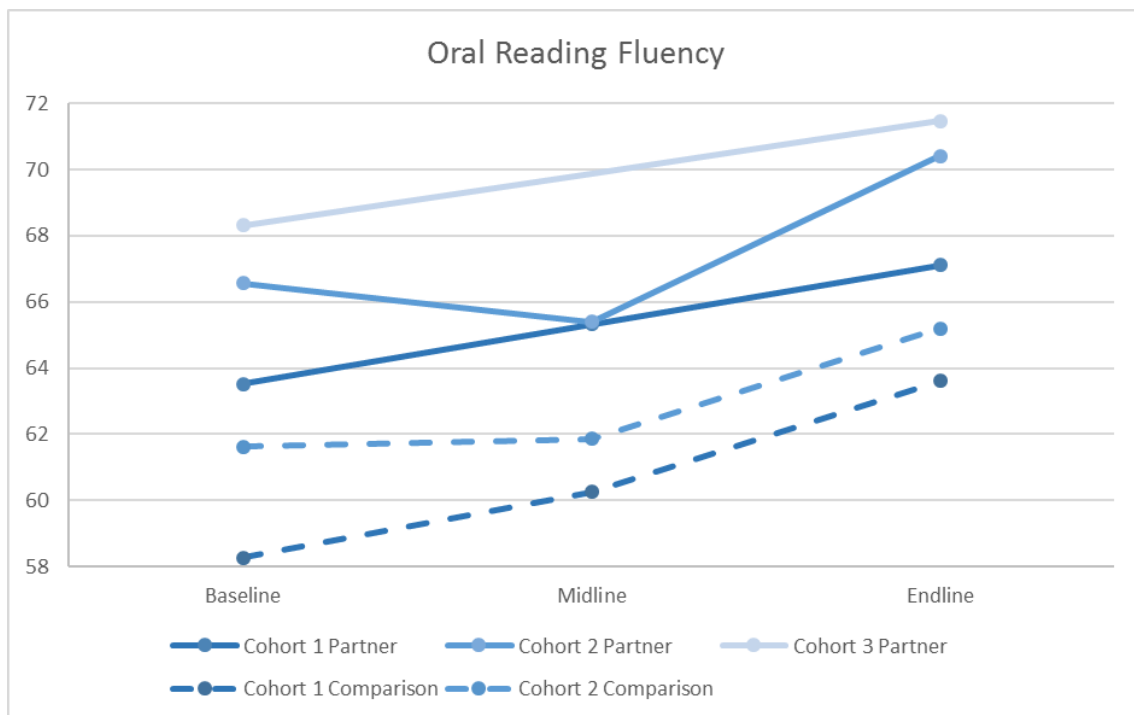
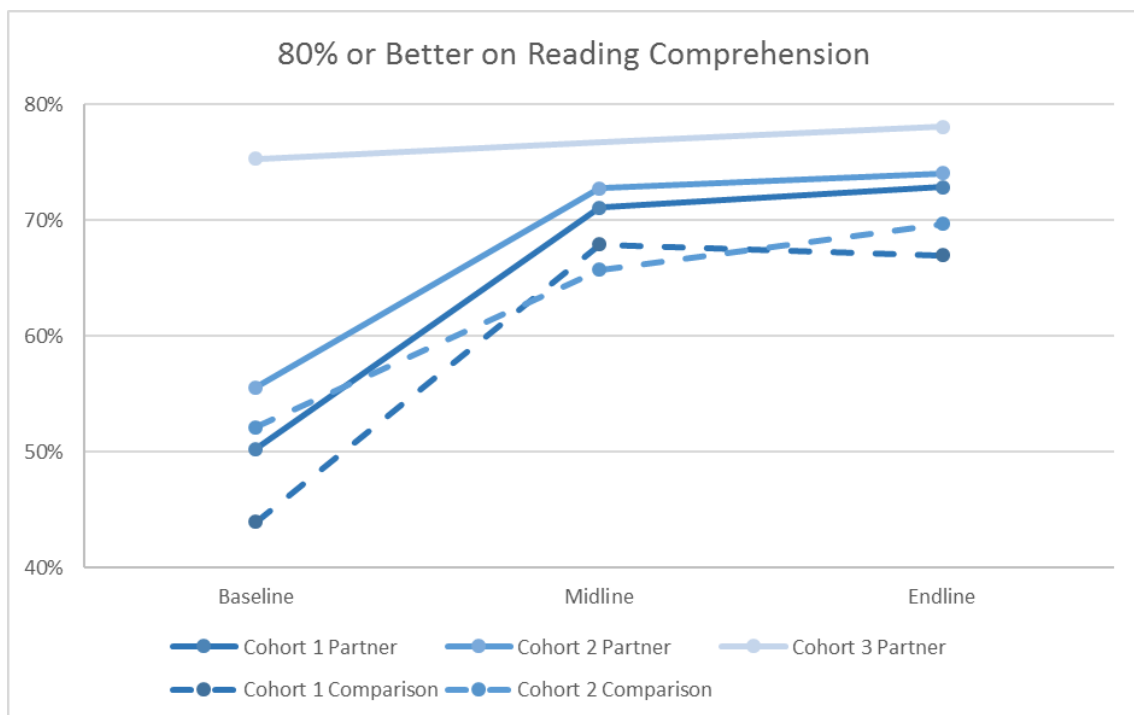


Figure 3: Trend of Percentage of Students Comprehending at least 80% of the Reading Passage by Cohort



The results of the sampled schools show some subgroups of children outperforming others in comparison with their grade 3 peers, as noted below (see **Annex K** for tables with summary statistics by subgroups and regressions models referenced in the following bullets):

- In Aceh and Central Java, a difference-in-difference (DID) effect in favor of the USAID PRIORITAS intervention was observed for ORF in Cohort 1 between baseline and endline.
- In Central Java, a DID effect in favor of the USAID PRIORITAS intervention was observed for familiar word reading, invented word decoding, and ORF at the 0.001 level in Cohort 2 and overall between baseline and endline.
- Across all cohorts, children in the samples from West Java, Central Java, and East Java provinces performed better on the reading skills assessments than those from the other three provinces per regression models, when other demographic features are controlled. Regression models for each cohort indicate students from these provinces read on average at least +16.6 cwpm faster on the ORF subtask than students in Aceh and Banten in Cohort 1 and at least +19.9 cwpm faster than students in Aceh and South Sulawesi in Cohort 2. In Cohort 1, these children in the Java provinces read at least +8.3 cwpm faster than students in South Sulawesi and North Sumatra. In Cohort 2, Banten students were like the students in samples in the Java provinces, only reading on average -1.2 cwpm slower than students in Central Java. In Cohort 3, students in East Java read on average +21.0 cwpm faster than students in North Sumatra.
- From baseline through endline, girls in the sampled schools outperformed the boys on all subtasks. Regression models suggest girls score, on average, at least +7.4 cwpm higher on ORF than boys when accounting for other predictors of reading ability and study design. Models also indicate girls are at least 51% more likely than boys to read with fluency and comprehension.
- From baseline through endline, children in rural schools read at lower levels than their peers in urban schools. Regression models suggest that attending an urban school increases ORF by an average of between +6.4 and +10.4 cwpm, depending on cohort, when accounting for other predictors of reading ability and study design.
- From baseline through endline, children without pre-school experience read at lower levels than their peers with pre-school experience. Regression models indicate that attending pre-school increases ORF by an average of between +7.6 and +13.6 cwpm, depending on cohort, when accounting for other predictors of reading ability and study design.
- From baseline through endline, children who did not speak the language of instruction at home read at lower levels than their peers that speak the language of instruction at home. Regression models indicate that speaking Bahasa Indonesia at home increases ORF by an average of +4.3 cwpm in Cohort 1, +7.9 cwpm in Cohort 2, and +1.6 cwpm in Cohort 3, when accounting for other predictors of reading ability and study design.
- At baseline, children in all project schools significantly outperformed students in the non-project (comparison) schools in all subtasks, regardless of cohort. This trend continued at endline for all subtasks. Regression models suggest that attending a partner school increases ORF by an average of between +2.7 and +4.5 cwpm, depending on cohort when accounting for other predictors of reading ability and study design.

One study result, which is less consistent with results from other studies and education research, shows that students in the sampled partner and comparison schools scored better when they indicated no parental support with their studies. This trend was observed across all time points for each cohort. One interpretation may be that in most households, only young

children or children who are struggling with reading are getting support from their parents. Children who are already able to read are encouraged to read by themselves.

How well are teachers teaching reading in the early grades?

Every year, USAID PRIORITAS has repeated a qualitative assessment of how reading in early grades is taught in the same EGRA-sampled schools, to better understand the approaches used in the classroom, as well as the reading support students are receiving.

Presented in the report are three indicators that are related to early grades: (1) early grade classroom teaching, (2) the use of early grade reading materials, and (3) school reading programs. The overall trend in the three cohorts shows that steady improvements were taking place in all three indicators. The biggest improvement was from baseline to midline. Modest improvements were still taking place from midline to endline, but not as impressive as improvements made between baseline and midline. There were improvements among comparison schools, but the level of improvements was not as high nor as steady as in the partner schools.

The achievement of Cohort 3 for all three indicators was outstanding. In the two years of program intervention (2014–2016), the achievement made by Cohort 3 at endline was very close to the achievement of Cohort 1 in four years (2012–2016) and Cohort 2 in three years (2013–2016), or in some cases, even higher. Cohort 3 districts applied and voluntarily expressed an interest in joining the project, which may reflect their strong commitment and capacity, and this may have contributed to their outstanding performance.

At endline, all three of the indicators showed positive correlations with the EGRA subtasks. Grade 2 teachers that demonstrated good practices in teaching and assessing reading had a positive impact on students' oral reading fluency and reading comprehension. In Cohort 3, this relationship was the strongest at endline, with correlations of 0.24 and 0.15, respectively. Grade 2 teachers that regularly used reading materials were strongest correlated to students' reading fluency and comprehension in Cohort 3 ($r = 0.30$ and $r = 0.26$, respectively). Schools with a reading culture had the highest correlation with reading fluency in Cohort 3 ($r = 0.19$) and with reading comprehension in Cohort 1 ($r = 0.13$).

Recommendations

The results of the USAID PRIORITAS program revealed interesting facts about the state of reading in the early grades in Indonesia. Specifically, even though results suggest students are reading both with fluency and with comprehension, Indonesian students continue to lag behind on international tests. Below are a few ways through which student reading performance can continue to be improved at all levels:

- 1) By implementing a systematic reading program with explicit instruction of foundational reading skills that includes phonemic awareness, phonics, fluency, vocabulary, and comprehension.
- 2) By providing good resources such as leveled reading books that facilitate individualized instruction and same level students in small groups.
- 3) By promoting a reading culture provided with good resources and implementing a reading practice of at least 15 minutes daily.
- 4) By ensuring that programs target geographical areas where student need is the greatest.

- 5) By giving more attention to school readiness programs, because students who have attended pre-school perform better in the early grades.

In addition, future impact studies can learn from the USAID PRIORITAS experience. A few of the lessons learned during the five-year implementation of this program are as follows:

- 1) It is important to ensure that comparison schools resemble intervention schools at the beginning of the study. This provides the best chance of attributing any gain in scores to the intervention.
- 2) Although “pure” comparison schools may not be feasible, it is necessary to stress the importance of comparison schools abstaining from the intervention until all data have been collected. This should be done by involving local stakeholders early in understanding the “big picture” and by budgeting time prior to project close-out for the comparison schools to receive the intervention. When comparison schools go out of their way to seek the intervention prior to the end of data collection, the ability to evaluate the intervention impact becomes difficult, if not impossible.
- 3) It is important to ensure that questions asked in a reading passage contain both literal and inferential questions. The instrument developed for the EGRA survey reflected this. However, an addition of another reading passage with a greater number of questions would have been better able to demonstrate the different levels of students’ reading ability.
- 4) When assessing young students one-on-one with an adult assessor, it is important to consider the cultural setting such that students are given the best opportunity to feel comfortable in the testing environment. In Indonesia, the USAID PRIORITAS program found that university students, particularly those who were female, made the children feel more at ease during the early grade reading assessment.

1 Introduction

USAID emphasizes the importance of early grade reading in Goal One of its Education Strategy (2011) for “Improved **reading skills** for 100 million children in primary grades by 2019.” To support the achievement of this global goal, the USAID PRIORITAS project has a particular focus on supporting the development and improvement of reading in the early grades in Indonesia. The project’s target is to increase the following:

- The proportion of students in Indonesia who, by the end of two grades of primary schooling, demonstrate that they can read and understand the meaning of grade level text; and
- The proportion of students in Indonesia who, by the end of the primary cycle, can read and demonstrate understanding as defined by a country curriculum, standards, and national experts.

To best meet these targets, the USAID PRIORITAS project collected data on the reading achievement of children in the early grades as well as the performance of teachers between 2012 and 2016 for three cohorts in the project areas.

The EGRA findings from all cohort project districts have been used to guide the early grade literacy teaching resources developed by the project partner TTIs. Most of these teaching resources were adjusted for use in the early grade in-service teacher training. While the early grade training aims to train teachers in specific reading strategies using the graded readers developed with Yayasan Literasi Anak Indonesia (YLAI), other programs such as management and governance at the school and district levels, as well as advocacy and book supply programs, are aimed at developing a better reading program and promoting a reading culture.

This report presents and discusses the impact of project interventions for early grade reading in all sampled schools at the end of the implementation period (endline survey). The methodology of the endline EGRA instrument and survey design is detailed in Section 2. Section 3 provides overall information about any improvements within and across sampled groups, to determine the impact of the USAID PRIORITAS intervention within several demographic categories, considering changes across time and across sampled groups. Section 4 presents findings on how well teachers are teaching reading and the relationship to student performance at endline. Section 5 offers a reflection on the USAID PRIORITAS project by providing recommendations for continuing to advance student reading abilities and for implementing future educational studies.

2 Methodology

Using the EGRA, USAID PRIORITAS worked with local stakeholders to assess grade 3 students' reading skills across a variety of essential areas of literacy. EGRA does not assess a specific curriculum, but instead measures the rate at which students are developing critical skills that are necessary to learn to read successfully. The assessed skills are those that research has found to be predictive of later reading ability and that can be improved through effective teaching.

2.1 Early Grade Reading Assessment Instruments

2.1.1 The Instrument and Protocol

The EGRA instrument and protocol used for all cohorts were the same at endline. However, depending on the cohort, the endline instrument may have differed from the baseline instrument. **Table 3** below provides a summary of the EGRA instruments used at different points in time. The differences in the instruments noted in Table 3 refer to differences in the listening comprehension story and associated questions, the oral reading passage and the reading comprehension questions.

Table 3: Summary of EGRA Instruments at Intervention Phases

	Baseline	Midline	Endline
Cohort 1	EGRA Instrument #1	EGRA Instrument #3	EGRA Instrument #3
Cohort 2	EGRA Instrument #2	EGRA Instrument #3	EGRA Instrument #3
Cohort 3	EGRA Instrument #3		EGRA Instrument #3

Cohorts 1 and 2 used different reading passages and comprehension questions between baseline and endline; the revisions were made to ensure the security of the EGRA instrument but maintain a similar level of difficulty. Due to these differences in the baseline and endline reading passages, baseline ORF scores were adjusted to be on the same scale as the endline oral reading assessment by a piece-wise linear equating approach.² These adjusted ORF scores are used for all analyses in this report. **Annex H** provides a more detailed description of the process for equating Instrument #1 and Instrument #2 to Instrument #3, including final equating formulas and piloting details. At each time point, the remaining subtasks were scrambled within the row or adapted appropriately at an adaptation workshop, described in prior USAID PRIORITAS reports. **Table 4** explains the subtask types used at endline. The EGRA instrument used at endline can be found in **Annex A**, and the reliability and validity analysis of the endline EGRA instrument can be found in **Annex I**.

² The term piece-wise linear equating approach indicates that two equating approaches were used based on students' baseline ORF scores. Students were divided into two groups: (1) students with a zero baseline ORF and (2) students scoring above a zero at baseline on ORF. Students in the first group were equated to endline ORF with zero values. Students in the second group were equated with linear equating, to maintain the mean and standard error of the endline ORF assessment. When equated ORF scores were less than zero, the equated ORF score was set to zero.

Table 4: Early Grade Reading Assessment Components

#	Subtask	Students must...	Reading Skill
1	Letter–Name Knowledge (CLPM)	Provide the name of 100 upper- and lowercase letters presented in random order. Timed at 1 minute.	The ability to read the letters of the alphabet naturally and without hesitation.
2	Familiar Word Reading (CWPM)	Read 50 individual words common to grade level text. Timed at 1 minute.	The ability to read high-frequency words to assess whether children can automatically recognize words.
3	Invented Word Reading (CIWPM)	Read 50 individual words with common grade-level orthographic pattern. Timed at 1 minute.	The ability to apply knowledge of the relationship between sounds and symbols to decode words rather than reading words from memory.
4a	Oral Reading Fluency (ORF)	Read a narrative text of 57 words. Timed at 1 minute.	The ability to read connected text with accuracy, little effort, and at a sufficient rate of speed.
4b	Reading Comprehension (5)	Respond to 5 questions (3 literal and 2 inferential) about the entire text or parts they have read. 15 seconds to start to answer each question.	The ability to make meaning from (understand) what they have read.
5	Listening Comprehension (3)	Listen to a connected text of 30 words and respond correctly to 3 questions (2 literal and 1 inferential). 15 seconds to start to answer each question.	The ability to make sense of oral language (considered a necessary skill for reading comprehension).

CLPM = Correct Letters per Minute; CWPM = Correct Words per Minute; CIWPM = Correct Invented Words per Minute; ORF = Oral Reading Fluency

2.1.2 EGRA Assessor Training

The national assessor training was conducted on October 10–13 in Jakarta for 92 EGRA assessors, seven EGRA field coordinators, and nine supervisors from the seven provinces (see **Table 5** for summary counts and **Annex C** for a full list of assessors). Assessors were mostly student teachers, a few university lecturers, teachers, and principals. Most of the assessors had participated in the previous EGRA data collection; with 27 new assessors replacing those previous ones who were not available. The instrument used was the same as in the past year at Cohort 2 midline, therefore most assessors were familiar with it. The four-day training focused on collecting feedback from the previous implementation, as well as included discussions on each subtask, drawing from the assessors’ experiences in the field.

In-house, project-produced videos and simulations were used during the entire training. These videos show the types of errors and behaviors that are frequently seen in EGRA administrations. To ensure a standardized assessment and reliable data, the training also included two formal checks via an inter-rater reliability test (IRR). Assessors whose assessment results were beyond the rates of agreement did not participate in the assessment. Instead, they aided in the before and after assessment implementation.

Table 5: EGRA Assessor Training Participants

Province	Number of Assessors	Number of Supervisors	Number of Field Coordinators
Aceh	12	1	1
North Sumatra	12	1	1
Banten	10	2	1
West Java	12	1	1
Central Java	16	1	1
East Java	18	2	1
South Sulawesi	12	1	1
Total	92	9	7

2.1.3 Provincial EGRA Refresher Training

A two-day refresher training at the provincial level was conducted to prepare and review the main points of EGRA implementation procedures prior to data collection at schools. To ensure quality standards, each provincial refresher training was supported by one national EGRA staff member, who participated in the pilot test on the second day of the training as well as in data collection in the first school on the third day. A reflection session following the first school data collection was held to discuss feedback. Each team of EGRA assessors was accompanied by a supervisor and/or coordinator. Data was uploaded daily whenever possible. All data was collected using Tangerine™ software on tablets.

2.2 The Survey Design

For all cohorts, the EGRA data was collected for grade 3 students in the same schools at each intervention phase. A list of all schools participating in the project's EGRA at endline is included in **Annex B**. The EGRA-sampled partner and comparison schools are the same schools selected by the Monitoring and Evaluation (M & E) team for their collection of the classroom observations and school data.

The project partner districts and schools were not chosen at random, but were selected in cooperation with local stakeholders and per specific project criteria agreed on with USAID and the Indonesian Government counterparts. To ensure that there was a representative sample of different types of schools (secular, religious, private, and public) and for maximum comparability, multistage sampling was used where four project schools were randomly selected from within a project-determined cluster of six to eight schools. Within each school, the assessment was given to a random sample of, in most cases, 24 students (12 girls and 12 boys) selected from the grade 3 roster. The sample design is presented in **Table 6**, below. Details about the survey weights related to this survey design are provided in **Annex F**.

Table 6: The Survey Design

Grade Level	Grade 3 (Semester 1)
Geographic Areas	All Cohort 1, 2, or 3 USAID PRIORITAS project provinces (7, 7, and 2, respectively) and respective districts
Institution Type	All types of primary schools (secular and religious, public and private); representational sample of each type
School Sample	Eight project schools per district: four partner schools and four comparison schools
Membership	Maximum of 24 students per school: 12 girls and 12 boys (when possible)
Sampling Plan	Multistage sampling: representational sample of schools, selected with certainty; random selection of students

Despite the efforts to ensure that the sampled schools represented a range of schools in terms of their location and school type, the final sample between the partner and comparison schools may not have been evenly distributed. The distribution of the school sample among all cohorts by select characteristics is presented in **Table 7**. **Table 8** shows counts of comparison and partner schools for each cohort; for details of these counts by select characteristics per cohort, please refer to **Annex J**.

Table 7: Characteristics of the Overall School Sample

Province	Total	Urban	Rural	Public	Private	Secular	Religious
Aceh (6 districts)							
Comparison	23	7	16	23	0	17	6
Partner	24	10	14	24	0	16	8
North Sumatra (8 districts)							
Comparison	20	5	15	18	2	17	3
Partner	32	16	16	27	5	23	9
Banten (4 districts)							
Comparison	16	4	12	10	6	10	6
Partner	16	8	8	10	6	11	5
West Java (7 districts)							
Comparison	28	14	14	20	8	21	7
Partner	28	16	12	23	5	21	7
Central Java (7 districts)							
Comparison	27	14	13	20	7	20	7
Partner	28	12	16	20	8	21	7
East Java (11 districts)							
Comparison	28	20	8	22	6	21	7
Partner	44	20	24	33	11	33	11
South Sulawesi (7 districts)							
Comparison	28	8	20	25	3	24	4
Partner	28	15	13	25	3	22	6
Total (50 districts)							
Comparison	170	72	98	138	32	130	40
Partner	200	97	103	162	38	147	53

Table 8: Overall School Sample by Cohort

	Cohort 1	Cohort 2	Cohort 3
Comparison	90	80	
Partner	92	80	28
Overall	182	160	28

2.3 Data Collection

The endline EGRA data was collected during the period of October 26–December 14, 2016. A total of 8,181 students (49.7% or 4,066 were girls and 50.3% or 4,115 were boys) in 369 partner and comparison schools from all cohorts participated in the endline assessment. The endline EGRA implementation schedule for each province is provided in **Annex D**.

Across baseline, midline, and endline, data was collected from a total of 24,084 grade 3 students in 370³ schools across 50 districts in 7 provinces. Of these schools, 74.9% are secular, and the remaining schools are religious (reflecting the proportion of these types of schools in the project). Characteristics of the baseline, midline, and endline student sample are illustrated in **Table 9**. **Table 10** displays student counts by intervention group per cohort; for a more detailed description of the student sample per cohort, please refer to **Annex J**.

Table 9: Characteristics of the Overall Student Sample

Province	Total	Baseline	Midline	Endline	Male	Female	Urban	Rural
Aceh (6 districts)								
Comparison	1,480	494	498	488	728	752	483	997
Partner	1,518	494	503	521	762	756	658	860
North Sumatra (8 districts)								
Comparison	1,272	438	411	423	637	635	340	932
Partner	1,992	755	473	764	1,005	987	1,021	971
Banten (4 districts)								
Comparison	1,096	366	365	365	544	552	277	819
Partner	1,121	371	379	371	565	556	548	573
West Java (7 districts)								
Comparison	1,940	651	660	629	984	956	989	951
Partner	1,965	645	663	657	988	977	1,133	832
Central Java (7 districts)								
Comparison	1,931	658	641	632	984	947	1,005	926
Partner	1,911	640	647	624	998	913	861	1,050
East Java (11 districts)								
Comparison	1,768	589	608	571	872	896	1,312	456
Partner	2,558	980	605	973	1,289	1,269	1,192	1,366

³ Between the baseline and midline measurements for Cohort 1, two comparison schools merged to form one school. Since the same student population was represented by two schools at baseline and one school at mid- and endline, the school counts will vary by one school at each of these time points. Also, another school in Cohort 1 dropped out of the study after the baseline measurement. Since this student population is not represented at mid- and endline, this school was removed from all analyses.

Province	Total	Baseline	Midline	Endline	Male	Female	Urban	Rural
South Sulawesi (7 districts)								
Comparison	1,678	576	549	553	865	813	418	1,260
Partner	1,854	628	616	610	966	888	1,057	797
Total (50 districts)								
Comparison	11,165	3,772	3,732	3,661	5,614	5,551	4,824	6,341
Partner	12,919	4,513	3,886	4,520	6,573	6,346	6,470	6,449

Table 10: Overall Student Sample by Cohort

	All Cohorts		Cohort 1		Cohort 2		Cohort 3	
	Comparison	Partner	Comparison	Partner	Comparison	Partner	Comparison	Partner
Baseline	3,772	4,513	2,006	2,058	1,766	1,804		651
Midline	3,732	3,886	1,993	2,070	1,739	1,816		
Endline	3,661	4,520	1,927	2,069	1,734	1,793		658
Overall	11,165	12,919	5,926	6,197	5,239	5,413		1,309

2.4 Study Limitations

Several limitations to this study are discussed below. These limitations may have influenced the findings, although attempts were made to minimize these impacts, where possible.

Sample Selection: Sampled schools where EGRA was administered were selected by the project according to selection criteria that included commitment to the project and accessibility to local universities. Moreover, the multistage sampling employed in selecting the schools reduced the overall randomness of the sample. Thus, the results presented in this report represent **only** the students in the sampled schools and is not intended to be representative of either the districts, provinces, or the country.

In addition, for Cohorts 1 and 2, the set of sampled partner schools and comparison schools differed for certain demographic characteristics within provinces (for example, number of urban schools). These imbalances could result in biased estimates and possibly reduce the potential to detect the impact of the USAID PRIORITAS intervention. To account for this imbalance, specific analyses in the report are calculated within demographic groups; for example, students attending urban schools at endline are only compared with students that attended urban schools at baseline. Also, regression modeling was employed to determine the impact of the intervention when controlling for known demographic features.

Finally, in Cohort 3, data from comparison schools were not collected at either point of data collection; only partner schools were assessed in Cohort 3. Thus, to make claims about the impact of the USAID PRIORITAS intervention on these partner schools, propensity score matching was used to create a comparison group using existing baseline data from Cohorts 1 and 2. Each of the 28 baseline partner schools in Cohort 3 were matched to a similar baseline comparison school in Cohorts 1 or 2, based on the following characteristics: region, whether the school was secular or religious, whether the school was urban or rural, the percentage of female students, the percentage of students who have books at home, the percentage of students who speak Bahasa Indonesia at home, and the total number of grade 3 students at the school. After the comparison group was created, balance testing ensured that the two intervention groups were balanced at baseline, based on equated ORF. A few caveats

emerged in using this technique, which are discussed in further detail in **Annex G**. However, it is important to note that because the comparison group was artificially created, the analysis for Cohort 3 is limited. Because the comparison group was created out of a subset of existing data from Cohorts 1 and 2, point estimates for the comparison group are not shown in the body of the report. The comparison group was only used to estimate the impact of the USAID PRIORITAS intervention within Cohort 3. **All** results from Cohort 3 should be interpreted with this in mind.

Self-Reporting: Attempts were made to collect some of the student data from their class teacher. The data included students' study period, date of birth, and whether they were studying in a multigrade class. Additional information about reading practices and home environment needed to be collected from students themselves. The young age of the students, and the context in which the questionnaires were given, may have reduced reliability. For example, when asked if they were reading books at home with their parent(s) or an adult at home, they may have interpreted "reading together with parents" as parents helping them to read.

Comparisons to Previous Findings: For Cohorts 1 and 2, implementation of data collection at endline yielded different school and student counts from baseline. A common challenge in data collection is retrieving all targeted student assessments from the deployment plan. Further, between baseline and endline, some schools dropped out of the USAID PRIORITAS intervention or had to be reclassified for certain demographic factors. Due to these discrepancies, certain schools had to be removed from analysis at endline. This resulted in changes to the counts and weighting. Therefore, estimates published in this report may not match estimates from prior USAID PRIORITAS reports. For more information, please refer to **Annex F**.

Instrument: Although in the development and adaptation of the subtasks, especially the reading passage, care was taken with the length of the passages, the syntax, word difficulty, and the number and type of questions to ensure consistency with the instrument used previously, and although the passages were equated in the analysis, it is extremely difficult to create two passages that are of equal level of difficulty. In addition, although the five questions in the reading comprehension subtask included questions of different complexity levels, it was felt that a greater number of questions would be required to be better able to differentiate the varying levels of reading ability among the students assessed.

Cohort Differences: Given the large amount of data collected at the end of the study, results are presented as overall estimates in the report. However, each cohort demonstrated slight performance differences at each observed time point (baseline, midline, and endline), such that in some cases, trends noticed in the overall analysis were not present for all cohorts when analysis was repeated at the cohort level. When cohort results varied from the overall findings or other important cohort differences were discovered, these findings are detailed in the narrative of this report. For an in-depth discussion about cohort differences, see Section 3.1.2; also, all cohort-level estimates can be found in the tables and figures in **Annex K**.

3 How Well Children in USAID PRIORITAS Cohorts Are Reading at Endline

This section of the report explores the change in grade 3 student performance in comparison and partner schools that has occurred since the baseline EGRA assessment. Depending on cohort, the baseline EGRA assessment occurred 4, 3, or 2 years prior to the endline assessment. The results are generally reported by detailing overall achievement within and across each sampled group⁴ and within subgroup, such as for gender, school type, and pre-school experience, over time for all combined cohorts and for each cohort individually. The results, including percentages and frequencies, can be interpreted as representative of the students in the sampled schools. As previously explained, the project did not draw a simple random sample of the population of students in each group of interest.

This report section also explores difference-in-differences (DID) analyses to discover improvements over time within the partner schools relative to those of the comparison schools. DID analyses presented in this section were conducted under the assumption that intervention groups were balanced and that comparison schools were controlled (i.e., abstained from any intervention). It is possible that improvements in the partner and comparison schools may not entirely be the result of the USAID PRIORITAS intervention because of unequal sample distributions between partner and comparison school characteristics. Please note that in Cohort 3 a comparison group was not sampled; to facilitate DID analyses, a comparison group was created out of comparison schools in Cohort 1 and 2 from similar provinces. More information on how this comparison group was created may be found in **Annex G**. Summary statistics for all EGRA subtasks conducted by the project are presented in this report section.

In this study, results are reported for an analysis of 24,084 children (see **Tables 9** and **10** in Section 2.3 for details). A comparison of the average subtask scores between baseline and endline within and across partner and comparison schools are reported in this section, which also presents summary statistics for all project-conducted EGRA subtasks at baseline and endline for all cohorts.

3.1 Summary Scores

3.1.1 Overall Summary Scores

Grade 3 students in partner schools could identify, on average, +4.7 more letters in one minute at endline than at baseline; grade 3 students in comparison schools could identify, on average, +4.5 more letters in one minute at endline compared to baseline. Partner school students in Cohort 2 saw the largest gain from baseline to endline in correct letter identification per minute (clpm) of +6.0 clpm. Students' increased proficiency of letter sounds contributed to improvements from baseline to endline in the ORF and listening comprehension for partner schools in every cohort. When all cohort data was combined, significant improvement from baseline to endline was observed for all subtasks for both comparison and partner schools.

For invented words in isolation, students in grade 3 read an average of +5 more correct invented words per minute (ciwpm) at endline than at baseline. Overall, grade 3 students in partner schools averaged 41.8 ciwpm at endline, and in comparison schools, averaged 39.6 ciwpm at endline.

⁴ There were two sampled groups in the study, i.e., one sampled group of partner schools and one sampled group of comparison schools.

For text passage reading, children maintained average reading speeds from baseline to endline with partner school students continuing to outperform comparison school students. Based on baseline data from all cohorts, children in partner schools read, on average, around 65.5 cwpm with a 95% confidence interval of 64.9 to 66.1 cwpm when compared to comparison school students, who read around 60.0 cwpm, on average, with a 95% confidence interval of 59.4 to 60.6 cwpm. At endline, children in partner schools read, on average, 69.2 cwpm with a 95% confidence interval of 68.5 to 69.8 cwpm; comparison school students read, on average, 64.4 cwpm with a 95% confidence interval of 63.7 to 65.1 cwpm. At midline, student reading speeds fell slightly in Cohort 2, but endline results showed a significant increase in reading fluency. Within each cohort, students in Cohort 3 partner schools demonstrated the highest average ORF of 71.5 cwpm, and students in Cohort 1 comparison schools demonstrated the lowest average ORF of 63.6 cwpm. These trends are demonstrated in **Figure 2** in the executive summary.

Overall, the scores on all five reading subtasks suggest that the children's Bahasa Indonesia language skills are influencing their ability to understand connected text. Like baseline results, at endline, students in partner and comparison schools demonstrated mastery of the pre-reading skills of letter name knowledge, familiar word reading, and invented word decoding. Unlike baseline results, at endline, students in partner and comparison schools demonstrated an increased ability to understand connected text, as measured by the listening and reading comprehension subtask.

Both in partner and comparison schools at endline, students' ability to understand what they had read averaged above 3.8 out of 5 questions (or 76% correct), with 68.4% of comparison school students and 74.2% of partner school students able to score 80% or higher on reading comprehension. This is an increase of at least +18% in the percentage of students able to answer at least 4 out of the 5 reading comprehension questions correctly. Listening comprehension scores also increased similarly between baseline and endline, with students scoring on average 1.7 correct answers out of 3 in partner schools at baseline (1.5 in comparison schools) and an average of 2.6 correct answers out of 3 in partner schools at endline (2.5 in comparison schools).

At baseline, students in partner schools scored better than their counterparts in comparison schools in all subtasks; this difference was significant for all subtasks. Apart from letter name knowledge, invented word decoding, and listening comprehension, students in partner schools continued to score significantly better than their counterparts in comparison schools at endline. Both partner and comparison school students achieved significantly higher scores at endline for five of the six subtasks. These results with mean and standard error estimates for all subtasks mentioned above are detailed in **Table 11** below.

Across all cohorts, students in comparison schools demonstrated slightly greater increases in scores on listening comprehension from baseline to endline. While this difference is statistically significant, an increase of +1.0 correct answers and +0.8 correct answers does not represent a difference contextually. No other significant DID distinctions from baseline to endline scores for all three cohorts emerged. Within cohorts, Cohort 1 showed significant DID results for familiar word reading, and Cohort 3, with the simulated comparison group, showed significant DID results for reading comprehension and listening comprehension. These results are detailed in in **Annex K**.

These results suggest that any impact of the USAID PRIORITAS intervention may be obscured by some unknown factor. This might be partly attributable to the distributions of sampled schools. It could also be explained by other intervention programs, including dissemination training from the project and other forms of training by the district governments

or other entities. Many districts have been commending the training by USAID PRIORITAS as an example for all schools to follow. The data collected by the project monitoring team show that 71% of the principals and teachers of comparison schools had received some type of training before the endline EGRA data collection took place.

On average, students in comparison and partner schools significantly improved in letter name knowledge, oral reading fluency, and listening comprehension subtasks, regardless of cohort. While students in comparison schools continued to score, on average, significantly lower than students in partner schools at endline, comparison school students improved at a higher or similar rate to students in partner schools. This trend is demonstrated in **Figure 4** for ORF and reading comprehension subtasks for each cohort.

The initial difference between the partner and comparison samples highlight that these two groups of students were not similar. However, the similar improvement trend in both groups could be because students in comparison schools started at a lower point and, therefore, had further to improve. Due to improvements observed both in the partner and the comparison groups, it is difficult to determine the exact cause of student improvement.

Table 11: Summary of Overall Mean Subtask Scores by Cohort¹

Subtask	Sampled Group	Mean (SE)							
		2012	2013	2014		2015		2016	
		Baseline C1	Baseline C2	Baseline C3 ²	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Letter-Name Knowledge (CLPM)	Comparison	84.7 (0.36)	83.8 (0.43)		87.8 (0.36) [*]	85.8 (0.51) [*]	89.2 (0.4) [*]	88.3 (0.49) [*]	
	Partner	86.6 (0.41) ⁺	85.7 (0.47) ⁺	88.0 (0.67)	87.8 (0.43)	87.2 (0.45)	90.3 (0.41) [*]	91.7 (0.52) ^{**}	91.4 (0.78) [*]
Familiar Word Reading (CWPM)	Comparison	67.9 (0.38)	65.1 (0.49)		66.8 (0.42)	66.8 (0.57)	68.8 (0.46)	69.2 (0.55) [*]	
	Partner	72.8 (0.42) ⁺	69.5 (0.57) ⁺	71.6 (0.75)	70.8 (0.48) ^{**}	70.8 (0.53) ⁺	71.3 (0.47) ^{+#}	74.8 (0.54) ^{**}	74.7 (0.89) [*]
Invented Word Decoding (CIWPM)	Comparison	34.3 (0.22)	33.1 (0.31)		38.3 (0.26) [*]	38.8 (0.42) [*]	39.5 (0.3) [*]	39.6 (0.37) [*]	
	Partner	36.6 (0.27) ⁺	34.9 (0.35) ⁺	42.0 (0.51) ⁺	40.7 (0.31) ^{**}	40.4 (0.36) ^{**}	40.7 (0.32) [*]	42.6 (0.35) ^{**}	43.0 (0.59)
Oral Reading Fluency (ORF)	Comparison	58.3 (0.34)	61.6 (0.48)		60.3 (0.4) [*]	61.9 (0.54)	63.6 (0.45) [*]	65.2 (0.54) [*]	
	Partner	63.5 (0.4) ⁺	66.6 (0.58) ⁺	68.3 (0.76)	65.3 (0.47) ^{**}	65.4 (0.54) ⁺	67.1 (0.48) ^{**}	70.4 (0.54) ^{**}	71.5 (0.83) [*]
Reading Comprehension (5)	Comparison	3.2 (0.02)	3.2 (0.03)		3.7 (0.02) [*]	3.7 (0.03) [*]	3.7 (0.02) [*]	3.8 (0.03) [*]	
	Partner	3.3 (0.02) ⁺	3.4 (0.03) ⁺	4.1 (0.03) ⁺	3.9 (0.02) ^{**}	3.9 (0.03) ^{**}	3.9 (0.02) ^{**}	4 (0.02) ^{**}	4.1 (0.04) ^{+#}
Listening Comprehension (3)	Comparison	1.5 (0.01)	1.5 (0.02)		2.5 (0.01) [*]	2.6 (0.01) [*]	2.5 (0.01) [*]	2.5 (0.02) [*]	
	Partner	1.6 (0.02) ⁺	1.6 (0.02) ⁺	2.6 (0.02) ⁺	2.6 (0.01) ^{**}	2.6 (0.01) [#]	2.6 (0.01) ^{**}	2.6 (0.02) [*]	2.7 (0.02) ^{**#}
80% or Better on Reading Comprehension	Comparison	44% (0.76)	52.1% (0.94)		67.9% (0.76) [*]	65.7% (0.93) [*]	67% (0.72) [*]	69.7% (0.89) [*]	
	Partner	50.2% (0.99) ⁺	55.6% (1.09)	75.3% (1.31) ⁺	71.1% (0.9) ^{**}	72.8% (0.93) ^{**}	72.9% (0.84) ^{**}	74.1% (0.91) ^{**}	78.1% (1.29) ^{**#}

⁺ Significant difference between partner and comparison sampled group at time point, $\alpha = 0.01$.

^{*} Significant difference between baseline and mid-/endline within partner or comparison sampled group, $\alpha = 0.01$.

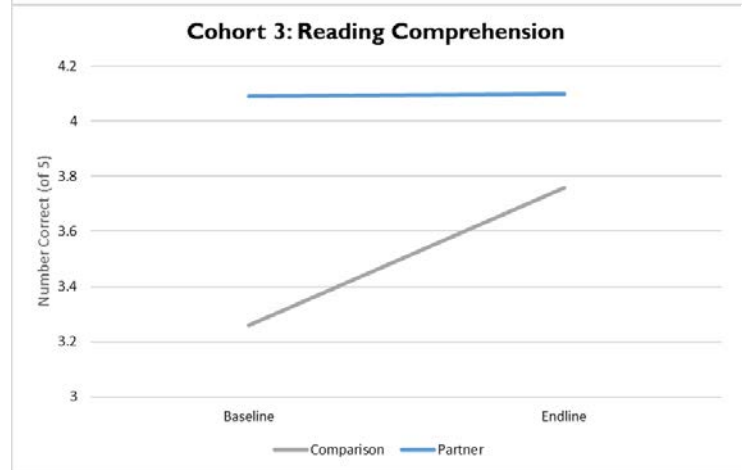
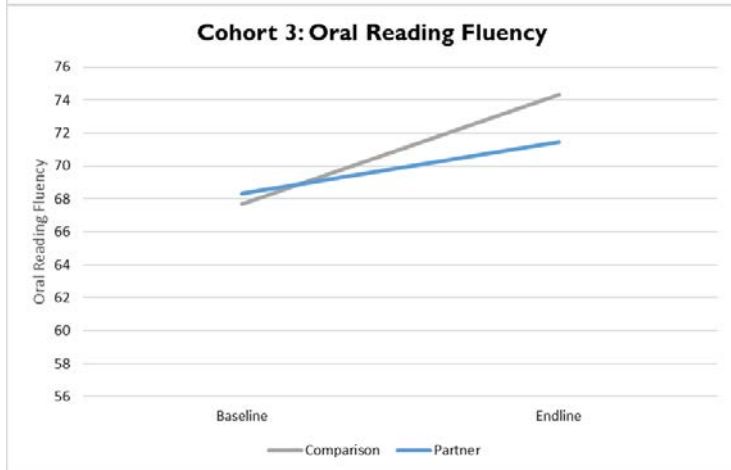
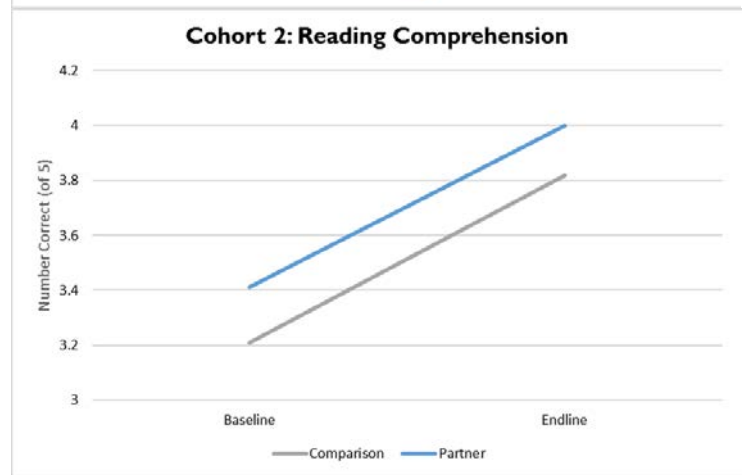
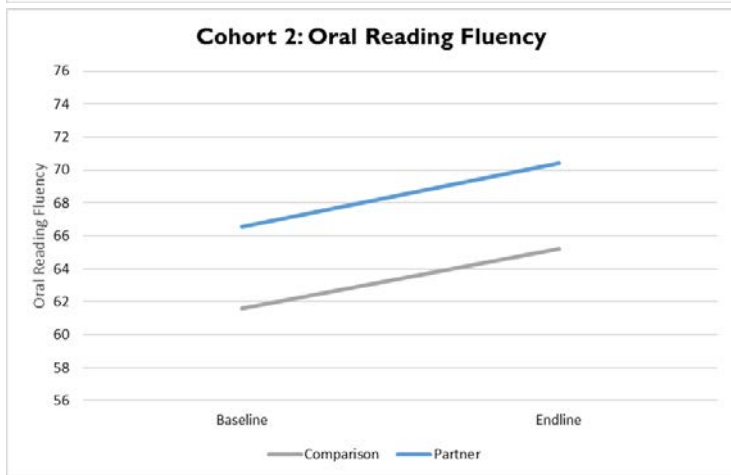
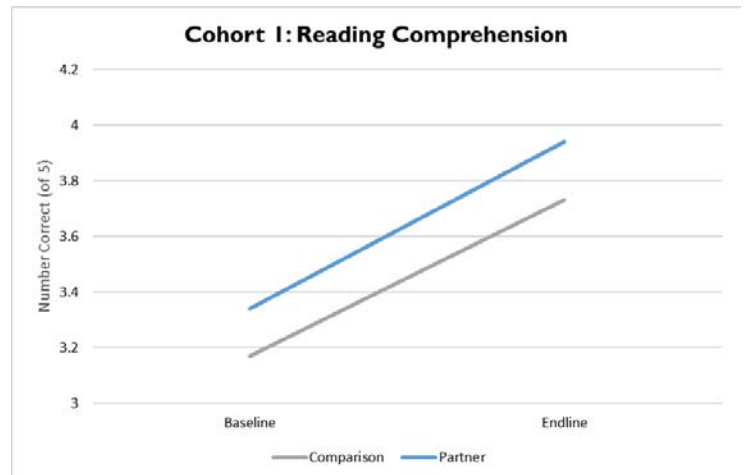
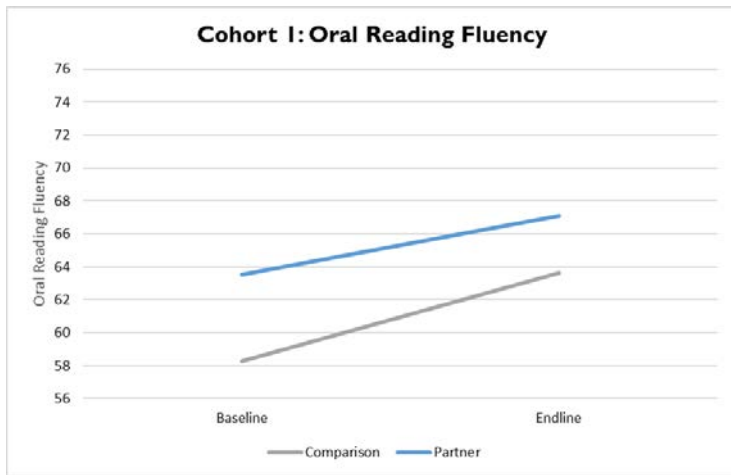
[#] Significant difference-in-difference (DID) between partner and comparison sampled group growth over time, $\alpha = 0.01$.

¹ An overall table with combined results for base-, mid-, and endline can be found in the Executive Summary. Detailed tables by cohort are in **Annex K**.

² Impact for Cohort 3 is from a simulated comparison group composed of schools and students from Cohorts 1 and 2.

C = Cohort; SE = Standard Error; CLPM = Correct Letters per Minute; CWPM = Correct Words per Minute; CIWPM = Correct Invented Words per Minute; ORF = Oral Reading Fluency.

Figure 4: Baseline and Endline Mean Scores on Selected Subtasks by Cohort



Overall Discussion of Zero Scores

The percentage of children who scored zero on a subtask was low at baseline and continued to decrease at endline for most reading skills in each cohort and sample group. Within Cohort 2, both the comparison and the partner school students showed lower percentages of zero scores in all subtasks at endline, compared to baseline, except for letter-name knowledge, which only had less than 0.3% of students scoring zero at baseline and endline. Partner schools in Cohort 1 and 3 saw increases in zero scores in ORF and reading comprehension from baseline to endline. Comparison schools in Cohort 1 experienced increased zero scores in every subtask except letter-name knowledge and listening comprehension. **Table 12** shows the percentages of zero scores, which represent the percentage of students in grade 3, who were unable to record⁵ the name of a single letter, read a single word, either isolated or in a connected text, or answer one question about a simple story, by cohort over each time point. Overall, partner schools had fewer students with zero scores on a given subtask compared to comparison schools at every time point. At baseline, Cohort 1 partner schools and comparison schools were similar in the proportion of students who scored zero on a given subtask. At endline, Cohort 1 partner schools had significantly fewer students scoring zero on every subtask, except letter-name knowledge, when compared to comparison schools.

Based on this **Table 12** data (see also **Annex K**), at most 0.2% of students did not know a single letter name at endline, as observed in Cohort 2. Invented word decoding and reading comprehension subtasks proved to have the highest percentage of zero scores, where at most around 5.0% of comparison school students and nearly 3.0% of partner school students were unable to decode an invented word or answer any of the reading comprehension questions correctly.

The greatest reduction in zero scores was observed for the listening comprehension subtask. At baseline, the highest percentage of zero scores was on this subtask, where almost 18% of all comparison school students and around 13% of partner school students were unable to correctly answer any of the three questions after listening to a simple story. By endline, these percentages dropped significantly to less than 3%. DID analysis revealed that decreases between partner and comparison schools from baseline to endline were significant for the listening comprehension subtask in Cohort 2 and 3, but not for Cohort 1.

Figure 5 displays the change in zero scores from baseline to endline within each cohort for ORF and reading comprehension. Regarding ORF, the comparison group ended with more students unable to read a single word of connected text when compared to those in partner schools. Cohorts 1 and 3 are particularly interesting because zero scores neither decreased in the partner schools, nor increased. This status may suggest something in the USAID PRIORITAS intervention that targets the ability to read at least one word in a connected passage. Among the three cohorts' results for reading comprehension, the zero scores were mixed.

Generally, most of the DID p-values were not significant for the subtasks, but partner schools had lower zero scores than comparison schools. Because these are the literacy skills that children learn in the first few years of school, these results show that only a minimal number of children have not acquired the foundational skills for successful learning.

⁵ The subtasks are discontinued if a child does **not** score any correct answers in the first row of the letters and words.

Figure 5: Baseline and Endline Zero Scores on Selected Subtasks by Cohort

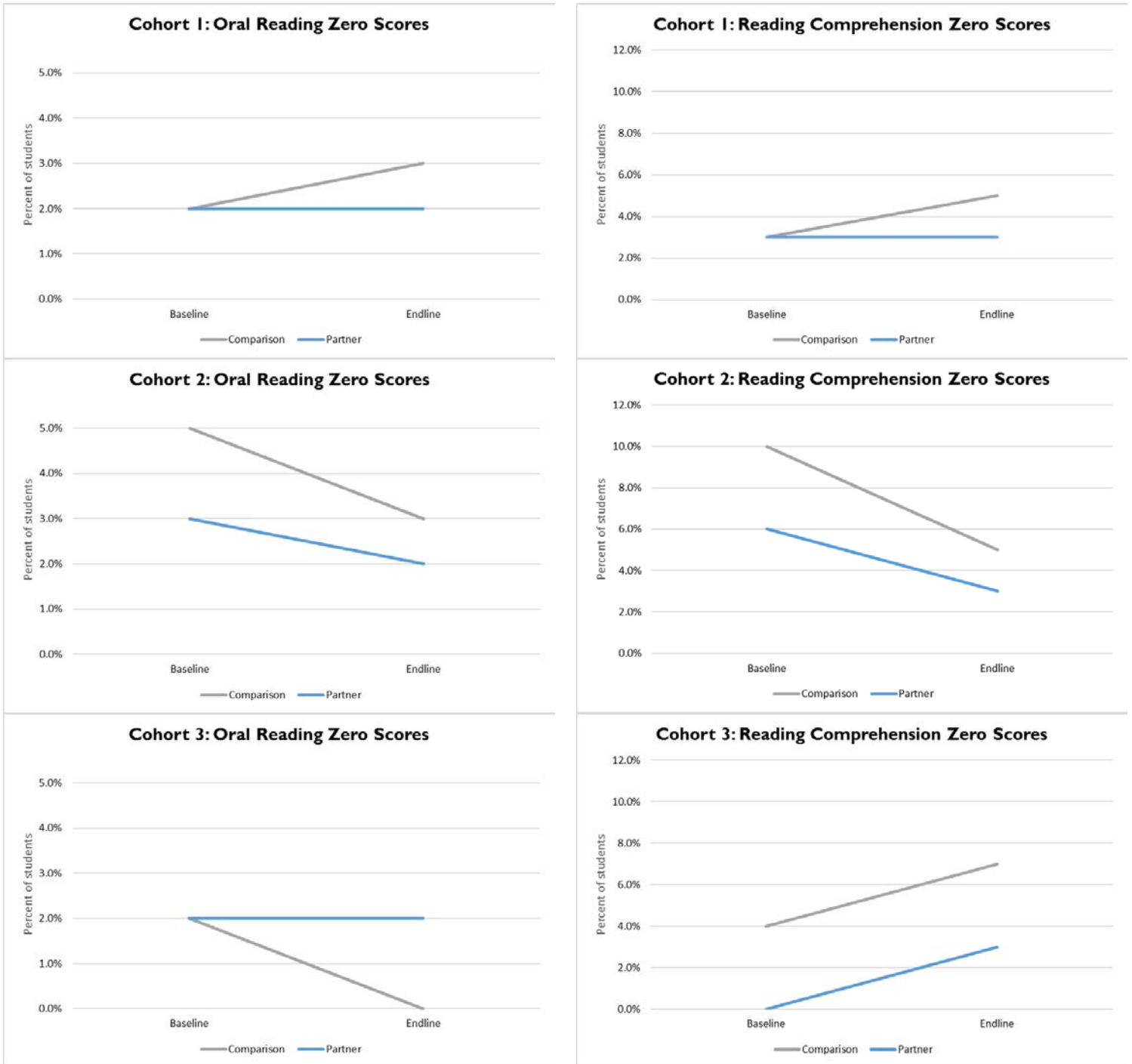


Table 12: Percentage of Students with Zero Scores by Cohort¹

Subtask	Sampled Group	Mean (SE)							
		2012	2013	2014		2015		2016	
		Baseline C1	Baseline C2	Baseline C3 ²	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Letter-Name Knowledge (CLPM)	Comparison	0.6% (0.12)	0.4% (0.14)		0.3% (0.08)	0.2% (0.06)	0.1% (0.02)*	0.2% (0.07)	
	Partner	0.2% (0.07)	0.3% (0.1)	0.0% (0.00)*	0.2% (0.08)	0.2% (0.07)	0.1% (0.03)	0.2% (0.10)	0.0% (0.00)*
Familiar Word Reading (CWPM)	Comparison	1.9% (0.21)	4.5% (0.35)		3.2% (0.28)*	2.7% (0.22)*	2.9% (0.24)*	2.8% (0.27)*	
	Partner	1.5% (0.16)	2.8% (0.31)*	1.2% (0.32)	2.2% (0.21)**	2.1% (0.3)	1.4% (0.15)*	1.5% (0.18)**	1.7% (0.50)*
Invented Word Decoding (CIWPM)	Comparison	3.6% (0.27)	8.0% (0.45)		5.3% (0.35)*	6.3% (0.36)*	5.1% (0.35)*	4.7% (0.34)*	
	Partner	3.5% (0.28)	5.1% (0.40)*	2.3% (0.47)	3.7% (0.28)*	5.0% (0.49)	2.7% (0.22)*#	2.7% (0.26)**	2.2% (0.57)**
Oral Reading Fluency (ORF)	Comparison	1.9% (0.21)	4.6% (0.32)		3.7% (0.30)*	3.9% (0.28)	3% (0.24)*	3.1% (0.27)*	
	Partner	1.6% (0.16)	3.0% (0.33)*	1.6% (0.45)	2.7% (0.22)**	3.1% (0.36)	1.8% (0.18)*	1.7% (0.21)**	1.7% (0.51)*
Reading Comp. (5)	Comparison	3.4% (0.27)	9.8% (0.50)		2.5% (0.27)	6.4% (0.36)*	5.3% (0.33)*	5.2% (0.34)*	
	Partner	2.9% (0.33)	6.2% (0.47)*	0.4% (0.14)*	1.6% (0.26)*	4.4% (0.39)**	3.0% (0.23)*#	3.2% (0.32)**	3.1% (0.60)**
Listening Comp. (3)	Comparison	18.0% (0.64)	17.8% (0.71)		1.9% (0.21)*	1.7% (0.22)*	3.7% (0.37)*	2.4% (0.31)*	
	Partner	15.6% (0.73)	14.3% (0.73)*	1.2% (0.39)*	2.0% (0.22)*	1.6% (0.2)*#	1.9% (0.23)**	2.7% (0.32)*#	0.3% (0.08)*#

+ Significant difference between partner and comparison sampled group at time point, $\alpha = 0.01$.

* Significant difference between baseline and mid-/endline within partner or comparison sampled group, $\alpha = 0.01$.

Significant difference-in-difference (DID) between partner and comparison sampled group growth over time, $\alpha = 0.01$.

¹ An overall table with combined results for base-, mid-, and endline can be found in the Executive Summary. Detailed tables by cohort are in **Annex K**.

² Impact for Cohort 3 is from a simulated comparison group composed of schools and students from Cohorts 1 and 2.

C = Cohort; SE = Standard Error; CLPM = Correct Letters per Minute; CWPM = Correct Words per Minute; CIWPM = Correct Invented Words per Minute; ORF = Oral Reading Fluency.

3.1.2 Summary Scores by Cohort

As stated previously, this report focuses on combined results of all cohorts at each observed time point, to facilitate a discussion of general trends without requiring separate reports for each cohort. When cohort results vary from the overall trend or present unusual findings, cohort differences are highlighted. This section presents the differences observed between each of these cohorts. Mean results for each subtask and corresponding percentage of zero scores for each cohort at each observed timepoint can be found in **Tables 11** and **12**, respectively, above.

Three time points exist for Cohorts 1 and 2: baseline, midline, and endline. Cohort 3, having been in the study the shortest amount of time (two years), only had two time points: baseline and endline. Cohort 1 was in the study the longest period of time and received the USAID PRIORITAS intervention for the past four years, starting in 2012. Cohort 2 partner schools received intervention for the past three years. See **Figure 1** in the executive summary for details on when each cohort entered the USAID PRIORITAS study.

The letter-name knowledge subtask yielded similar results at baseline and endline, regardless of cohort and intervention group. The largest observed difference was between sampled partner school students in Cohort 1 and 2 at endline; Cohort 2 sampled partner school students read, on average, +1.4 clpm more than Cohort 1 sampled partner students at endline.

The familiar word reading subtask yielded similar results at baseline for Cohorts 1 and 3 partner schools and at endline for Cohorts 1 and 2 comparison schools. At endline, partner schools in Cohorts 2 and 3 were more similar to each other than to those in Cohort 1. Students in Cohorts 2 and 3 partner schools read, on average, about +3.4 cwpm more than students in Cohort 1 partner schools.

The invented word decoding and oral reading fluency subtasks demonstrated dissimilar partner school results both at baseline and endline. Partner schools in Cohorts 2 and 3 were more similar than those in Cohort 1. In invented word decoding, partner school students in Cohorts 2 and 3 decoded at least +1.9 ciwpm more than those in Cohort 1; as for ORF, these students read at least +3.3 cwpm more than those in Cohort 1 at endline. The distribution of the invented word decoding and ORF subtask for each cohort over time, by sampled group, are shown in **Figures 6** and **7**, respectively.

Cohort differences between the average performance on each subtask generally decreased from baseline to endline. That is, cohorts were more similar at endline than at baseline. There were a few exceptions to this, the most notable being familiar word reading as noted above. When differences did not decrease from baseline to endline, the increase was small—less than 0.5 clpm, 0.3 cwpm, or 0.05 questions, depending on the subtask. A table containing significant indicators of the cohort comparisons can be found in **Annex K**.

Figure 6: Invented Word Decoding Distribution by Cohort and Time

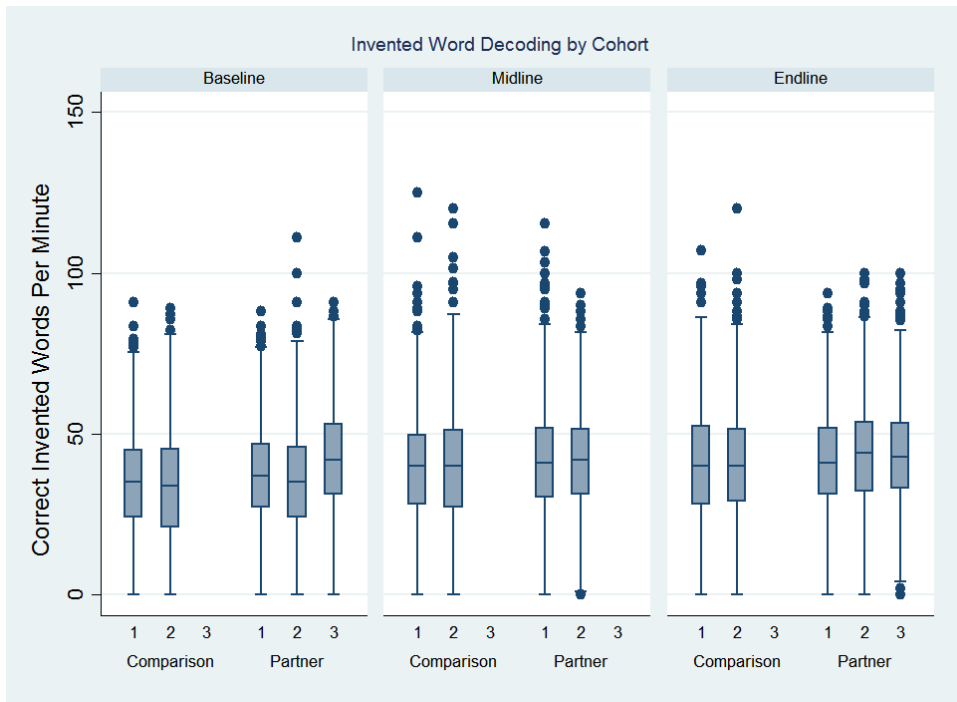
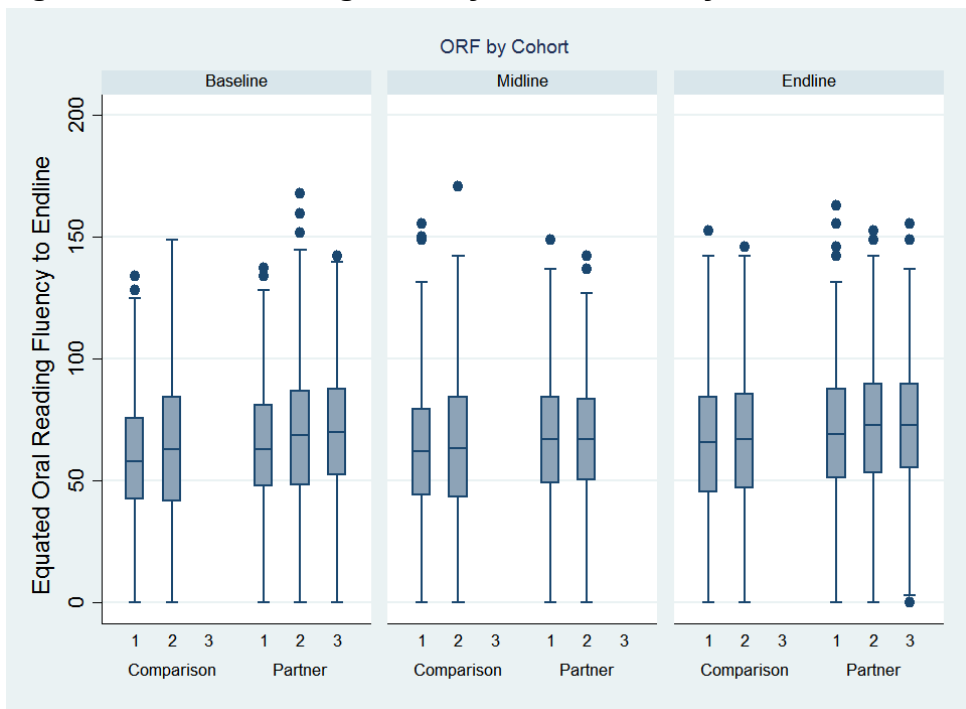


Figure 7: Oral Reading Fluency Distribution by Cohort and Time



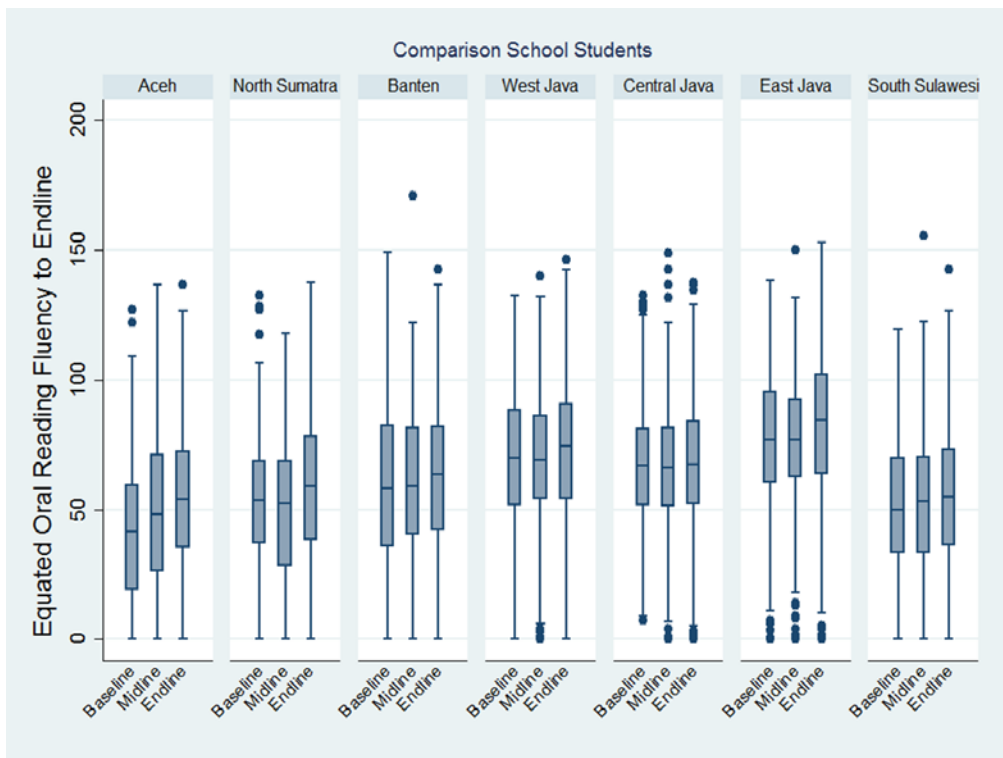
3.1.3 Summary Scores by Province

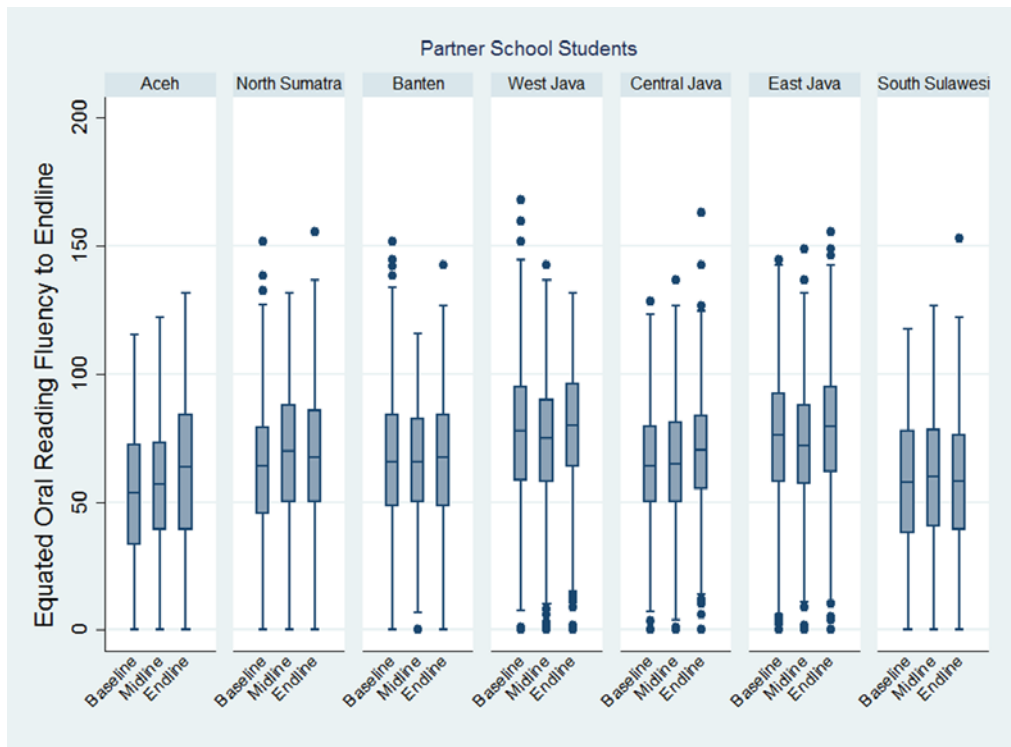
At baseline, students in West Java, Central Java, and East Java provinces scored better, on average, compared with students in the other provinces, except for invented word decoding and ORF, where Banten scored within the ranges of the better performing provinces. By endline, North Sumatra and Banten had caught up with the better performing provinces. However, Aceh and South Sulawesi continue to struggle to progress in education, compared to other provinces. Student performance in ORF by province and sampled group are displayed in **Figure 8**. Tables with subtask means and zero scores for each cohort are in **Annex K**.

Among the seven provinces with all data combined, Central Java saw the most significant gains for students in partner schools. Across all subtasks, Central Java showed positive DID effect sizes that indicated partner school students improved at a higher rate than comparison school students over time; these results were significant for familiar word reading, invented word decoding, and ORF. West Java also demonstrated a positive effect due to the USAID PRIORITAS intervention in all subtasks except listening comprehension, however, none of these values were significant.

Notably, all provinces produced increases in invented word decoding, reading comprehension, and listening comprehension scores, regardless of sampled group from baseline to endline. There were a few oddities, however. In Aceh, the comparison schools demonstrated strong increases in every subtask, such that at endline, students in the sampled comparison schools performed similarly to students in the sampled partner schools. This trend occurred because some of the project facilitators are from the comparison schools; therefore, they may have implemented the good practices they acquired from training in their schools.

Figure 8: Oral Reading Fluency Mean Results by Province, Overall





3.1.4 Oral Reading Fluency by District

To better understand the reading speeds of students within each region, the average reading pace within each district, at baseline and endline without respect to sampled group, were examined. These results are detailed in **Figure 9**.

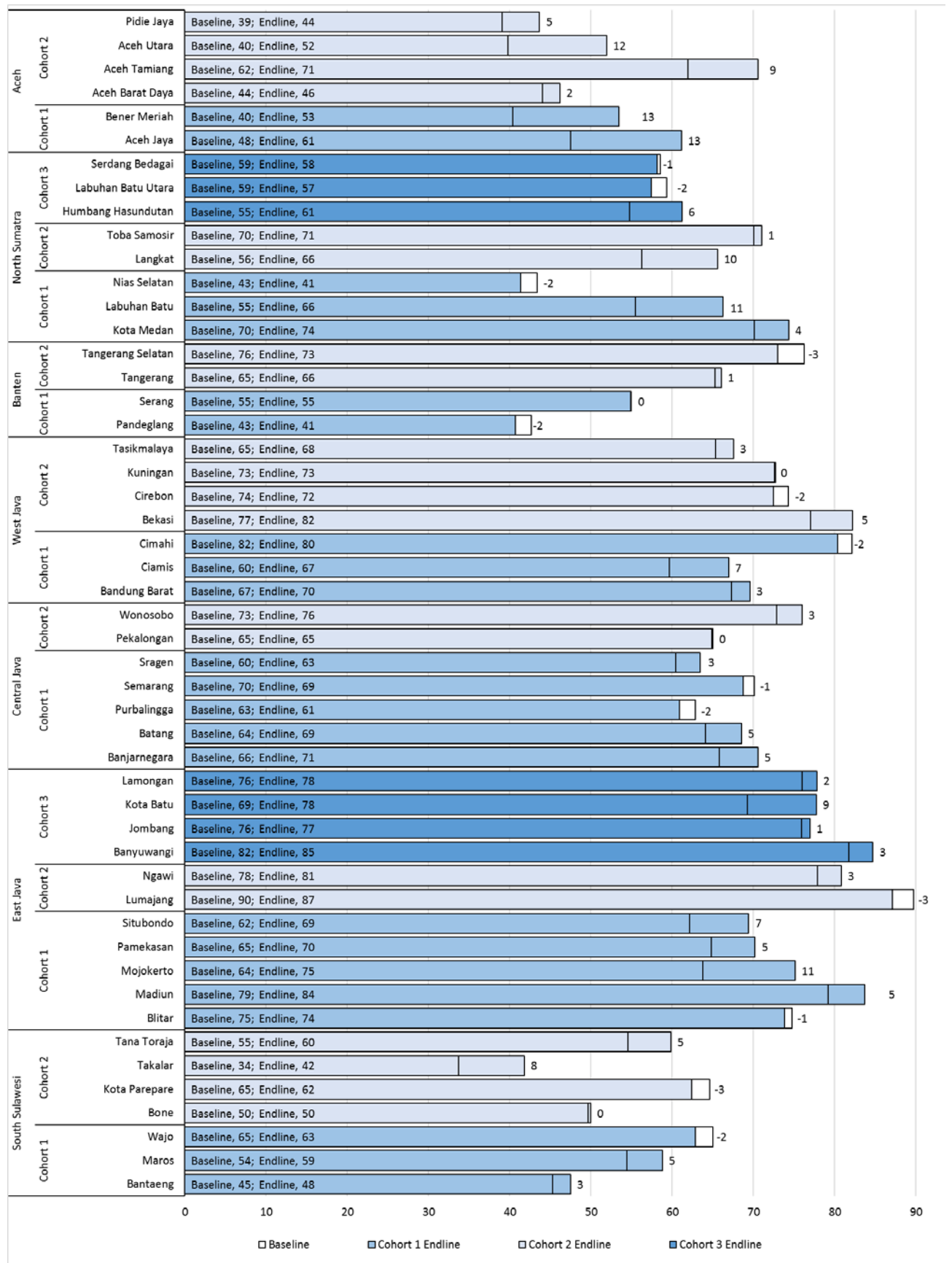
Of the 50 districts, 36 districts saw an average increase in student reading speeds from baseline to endline; the largest increase was +13.6 cwpm observed in Aceh Jaya, Aceh. All districts in Aceh increased in ORF from baseline to endline between +2.1 and +13.6 cwpm.

Overall, districts in Aceh, East Java, and North Sumatra saw increases of at least +10.8 cwpm and minimal decreases of at most -2.6 cwpm. West Java and South Sulawesi had districts with the next highest increase of around +7.3 cwpm and decreases of, at most, -2.2 cwpm. Districts in Central Java increased in ORF between -1.9 and 4.7 cwpm.

The poorest performing districts were in Banten, where the largest decrease in average student reading speeds was observed at -3.2 cwpm in Tangerang Selatan, Banten. At most, districts in Banten increased in average student reading speeds by +0.7 cwpm.

Despite these district level differences, South Sulawesi continued to underperform compared with other regions, with none of its districts averaging 70 cwpm at endline; all other regions had at least one district that reported average reading speeds of at least 70 cwpm at endline.

Figure 9: Oral Reading Fluency by District



3.1.5 Summary Scores by Gender

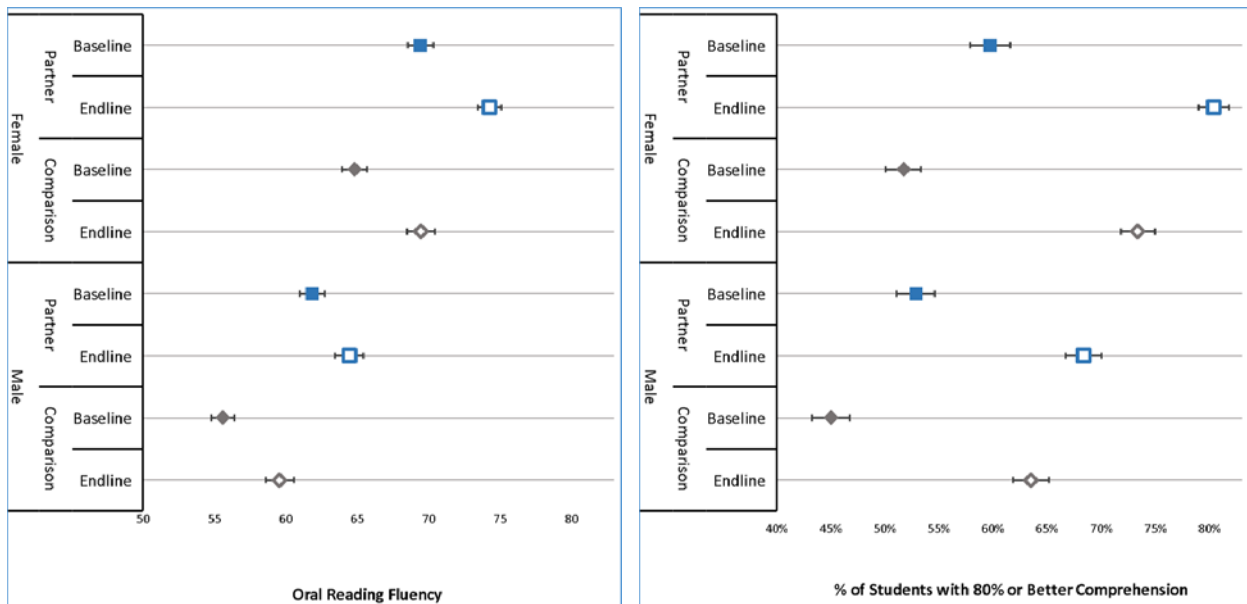
In this intervention study, 48.4% of the overall study population were girls. With respect to sampled group, 49.1% of children in the sampled partner schools were girls, and 49.7% of children in the sampled comparison schools were girls.

From baseline to endline based on all cohorts, boys and girls improved in every subtask, regardless of sampled group. Within cohorts, results were mixed, but all cohorts saw increases in letter-name knowledge, invented word decoding, and listening comprehension. Cohort 1 saw decreases of -2.5 cwpm in familiar word reading for boys and -0.5 cwpm for girls in partner sampled schools; Cohort 3 saw decreases of -0.1 listening comprehension questions and -0.2 cwpm in ORF among boys in sampled partner schools.

Oral reading fluency performance increased with respect to sampled group and gender in most cohorts. The largest increase of almost +7.0 cwpm were observed for girls in Cohort 1 comparison schools and Cohort 3 partner schools. The lowest increase of +2.2 cwpm was observed for boys in Cohort 1 partner schools. Except for those intervention and gender groups already mentioned, the other gender groups saw increases of around +4.0 cwpm.

Overall from baseline to endline, boys in comparison schools averaged almost 60 cwpm; boys in partner schools averaged almost 65 cwpm. Girls in comparison schools averaged roughly 70 cwpm compared to those in partner schools, who averaged at least 74 cwpm. This data indicates that students in sampled schools were reading with proficient speeds of 60 cwpm at baseline and that this trend continued at endline. Mean scores, with 95% confidence intervals for ORF and comprehension of at least 80% of the reading passage, are illustrated in **Figure 10**. Tables detailing the improvements in subtask scores from baseline to endline for each gender, by sampled group with respect to cohort, are provided in **Annex K**.

Figure 10: Baseline and Endline Mean Scores on Selected Subtasks, by Gender¹



¹ Point estimates reflect mean estimates. Bounds around each mean estimate represent the 95% confidence interval for that mean estimate.

3.2 Analysis by Subtask

In this section, results of each EGRA measure by sampled group at baseline and endline will be presented with a brief interpretation, focusing on distributional shifts in student performance. This discussion and the graphics are not disaggregated by cohort, unless specifically stated. To view distributions by cohort, please see **Annex K**.

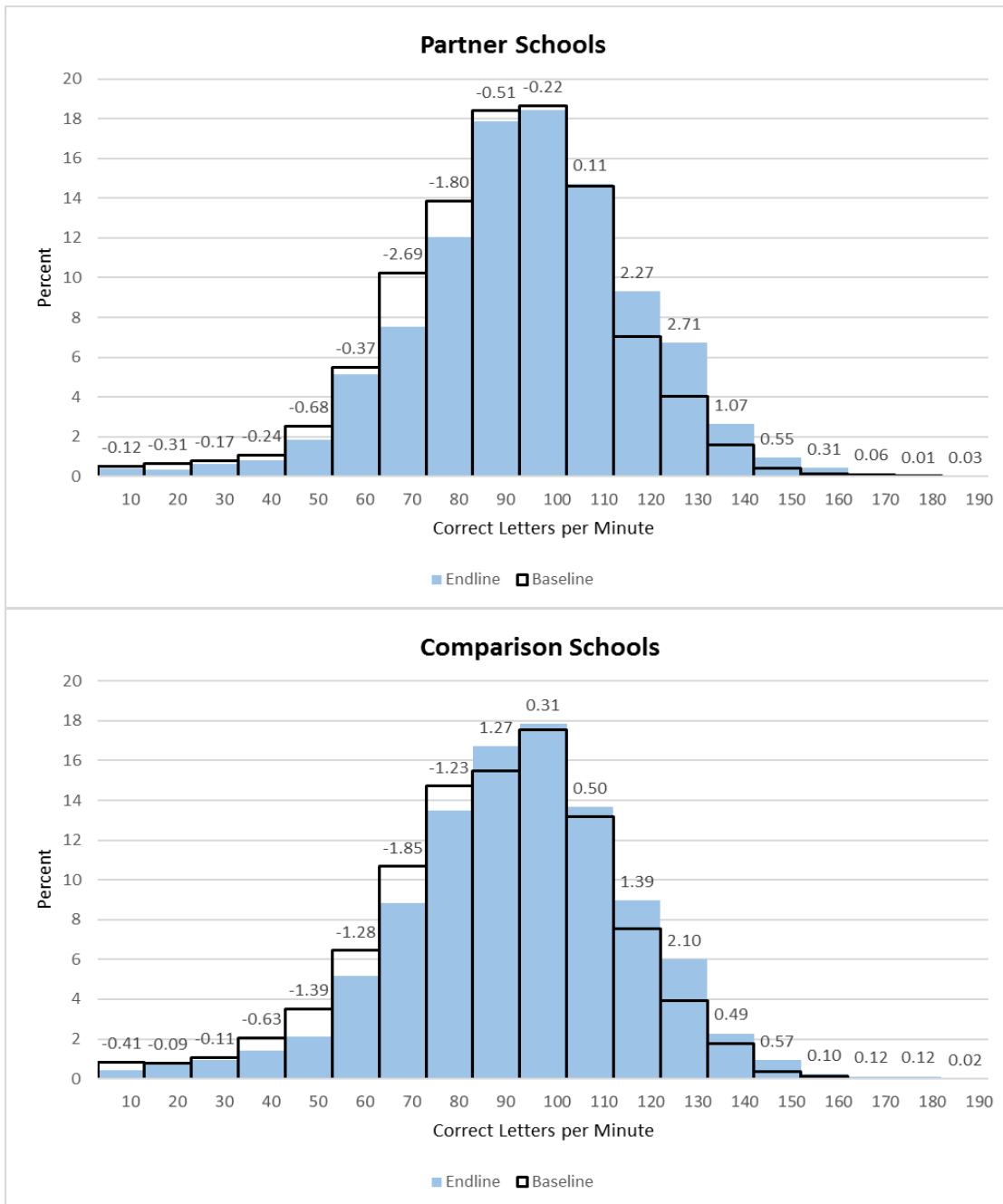
3.2.1 Letter-Name Knowledge

The letter-name knowledge subtask measures students' ability to identify letter names automatically. This ability is an important foundational skill, and high levels of fluency should be observed by the beginning of grade 2. Students were presented a chart with 100 random upper- and lower-cased letters and were asked to identify as many as they could within one minute. Scores for this subtask are the number of letters the student could correctly identify within one minute.

Figure 11 presents students' fluency in identifying letters at the beginning of grade 3 at baseline and endline within each sampled group. Although both sampled groups experienced a distribution shift toward higher scores, the partner schools saw the largest percentage in increases for students scoring above 100 correct letters per minute (clpm). Partner schools had an increase of 7.1% of students scoring above 100 clpm by endline; comparison schools increased by roughly 5.4% at endline. At endline, 35.0% of partner school students and 32.3% of comparison school students could identify at least 100 clpm. For the endline assessment, the proportion of students who could identify at least 80 clpm was 71.3% in the partner schools and 66.9% in the comparison schools.

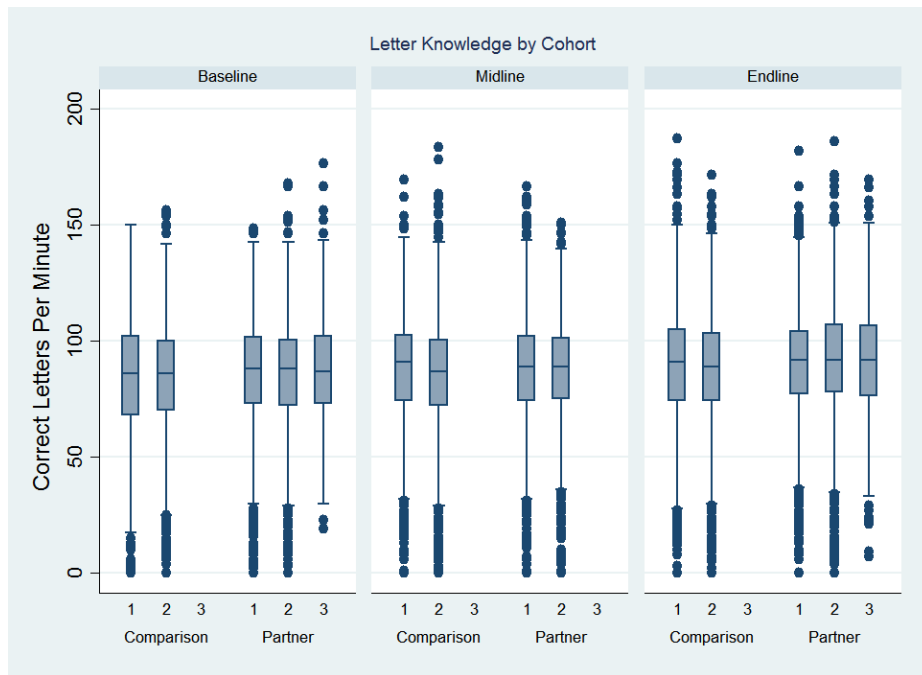
Regardless of time and intervention group, students who scored in the 0 to 20 clpm range comprised less than 1% of students in sampled partner schools; for comparison schools, this range was between 0 and 10 clpm. That is, almost all students, regardless of their sampled group, could correctly identify 20 or more letters in one minute. Partner schools saw a 4.4% increase in students correctly identifying between 80 and 130 letters per minute (67.0% at endline); within this same range, comparison schools experienced a 5.6% increase (63.2% at endline).

Figure 11: Distribution of Sample Scores for Letter-Name Knowledge



Cohort 2 partner schools reflected a notable shift in scores, within 110 clpm and above, increasing by 7.0% at endline from 13.3% at baseline. Although on the edge of the distribution, **Figure 12** shows more students scoring above 150 clpm across all cohorts when comparing endline to baseline, regardless of intervention group. These results are an indication of clear and explicit instruction in schools in letter names and recognition.

Figure 12: Distribution of Sample Scores for Letter Name Knowledge by Cohort

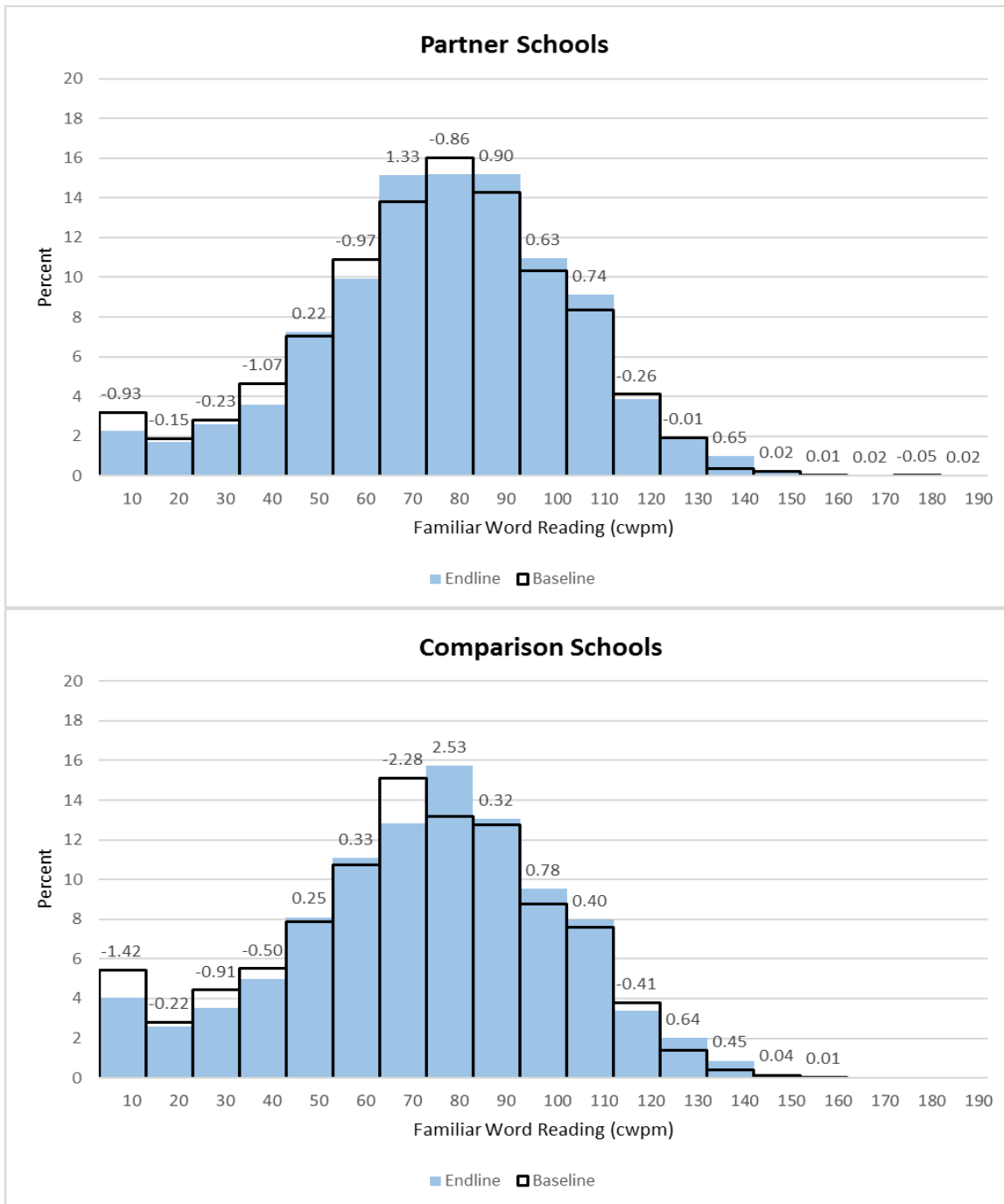


3.2.2 Familiar Word Reading

The familiar word reading subtask assesses the student’s ability to identify 50 written words presented in isolation in one minute. These are words that the students should already know or be expected to know. Although some students are scoring higher on the familiar word reading subtask at endline, the distribution of student scores showed little to no forward shift from baseline scores (see **Figure 13**). At baseline, the middle 50% of partner school students scored between 73.0 (25th percentile) and 101.7 (75th percentile) familiar cwpm; at endline, there was a slight shift to 77.0 and 105.8 cwpm. For comparison school students, the middle 50% scores shifted from 69.0 to 101.4 cwpm at baseline to 74.0 to 105.3 cwpm at endline. This shift indicates that, over time, more students both in partner and in comparison schools are reaching proficiency in reading familiar words in isolation.

Although students in both sampled groups improved over time, partner school students represented a larger number of students able to identify 60 to 110 cwpm and continued to outperform students in comparison schools. At endline, 65.5% of partner school students could identify 60 to 110 cwpm; 59.2% of comparison school students should identify 60 to 110 cwpm. Over time, the number of students able to identify less than 10 familiar cwpm decreased in both sampled groups. In comparison schools, 4.0% of students were unable to identify less than 10 cwpm; a decrease of 1.4% from baseline. In partner schools, 2.3% of students were unable to identify less than 10 cwpm; a decrease of 0.9% from baseline.

Figure 13: Distribution of Sample Scores for Correct Familiar Words per Minute



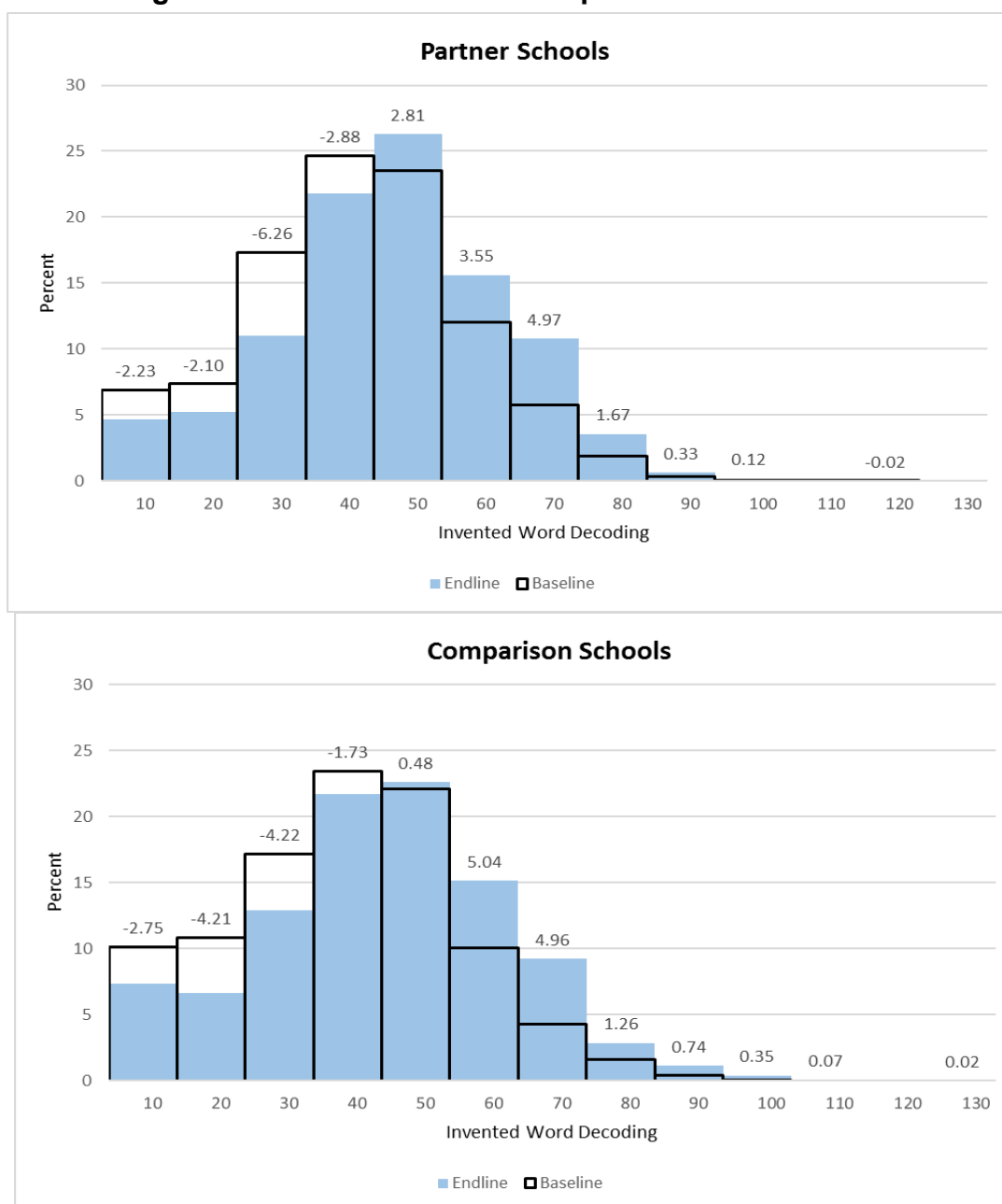
3.2.3 Invented Word Reading

The EGRA invented-word reading subtask is intended to be a measure of how well students can “decode” words that seem invented. This subtask draws on a child’s ability to use their knowledge of the relationship between letters and their sounds to read invented words. Students were presented with a chart with 50 invented words that follow the orthographic structure of Bahasa Indonesia and were asked to read as many of the words as they could within one minute. Scores for this subtask were the number of invented words the student could correctly read within one minute.

The results summarized in **Figure 14** show that students' skills in reading invented words is not as strong as reading individual familiar words, and this is understandable. However, as the figure also shows, the distribution of student scores is shifting upward and expanding to the right (more words being decoded), compared to the baseline measurement, both for the partner and comparison schools. Of the grade 3 students assessed, the percentage of students that could read 40 or more ciwpm increased from 43.8% at baseline to 57.2% at endline in partner schools and from 38.4% at baseline to 51.3% at endline in comparison schools.

This increase in students able to identify 40 or more ciwpm of +13.5% in partner schools and +12.9% in comparison schools is directly reflected in the decrease in the number of students able to identify less than 40 ciwpm. At endline, 42.8% of partner school students and 58.7% of comparison school students could identify less than 40 ciwpm.

Figure 14: Distribution of Sample Scores for Invented Words



3.2.4 Oral Reading Fluency

While the previous subtasks were designed to measure foundational reading skills, oral reading fluency measures a child's ability to read connected text. In this subtask, children were asked to read within one minute a 58-word passage at baseline and a 57-word passage of local relevance at endline. The score resulted from the number of words from the passage that the student accurately read in one minute.

Interpretation of the words-per-minute results should be language specific. The phenomenon is consistent across languages that word identification becomes more accurate and automatic (i.e., faster) as reading skills develop. However, because of the differences between languages (e.g., transparency, word length) comparisons of words per minute across languages should be interpreted with caution. A guiding number for oral English reading fluency at the end of grade 2 is 60.⁶ The students from the sampled schools were assessed at the **beginning** of grade 3 in Bahasa Indonesia.

While there was a distributional shift toward higher oral reading scores, **Figure 15** clearly shows a distributional change with more students reading between 70 and 130 cwpm at endline, both in sampled partner and in comparison schools. This shift is more noticeable among partner school students, where 51.9% of students read between 70 and 130 cwpm at endline, an increase of +7.5%; in comparison schools, 44.0% students read between 70 and 130 cwpm at endline, an increase of +7.1%.

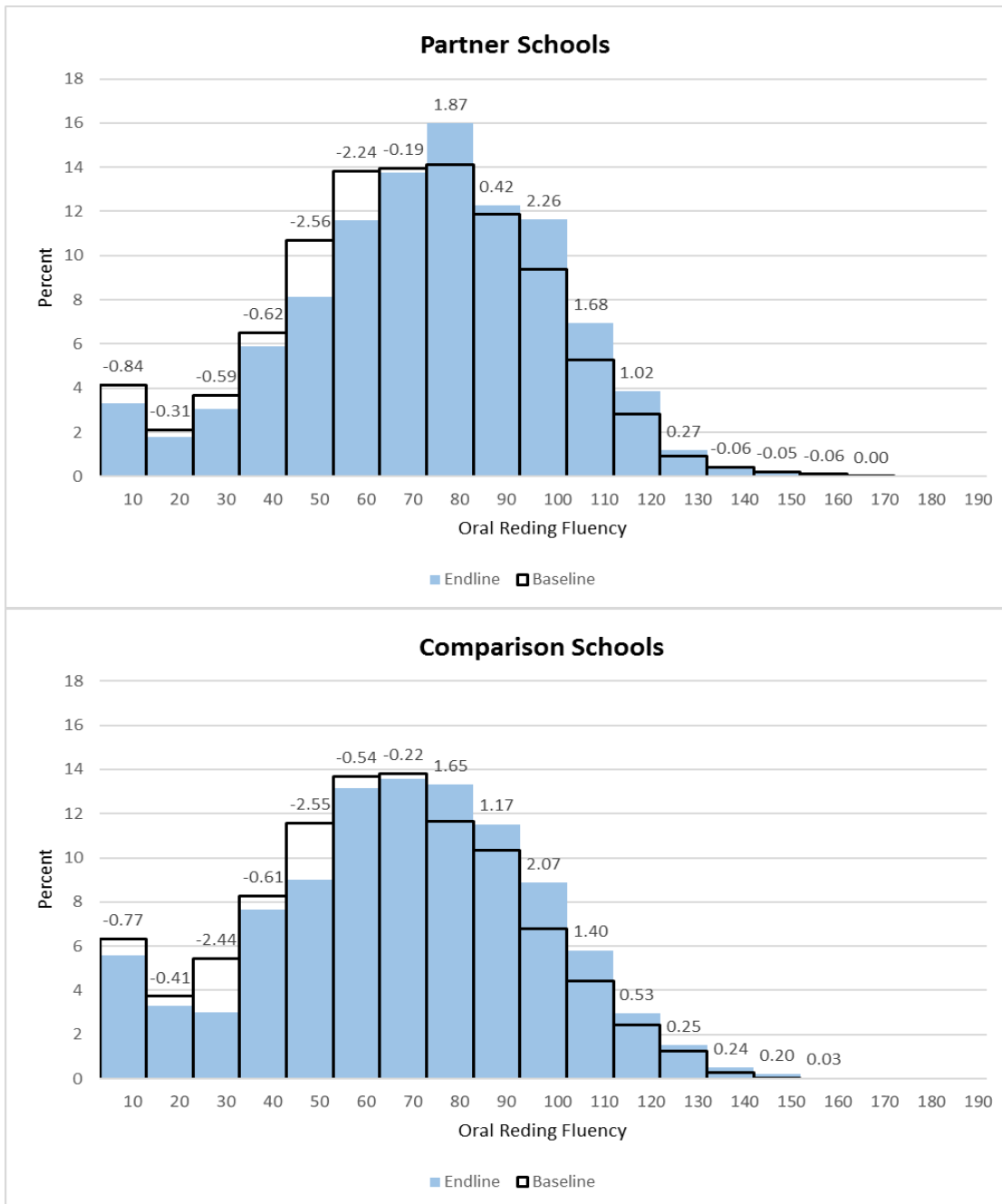
Overall, there was a slight decrease in the percentage of students who could not read more than 10 words of the passage, from baseline to endline, in sampled partner schools (4.2% at baseline; 3.3% at endline) and comparison schools (6.3% at baseline; 5.6% at endline). Within each cohort, these results were mixed. Cohort 1 saw an increase in percentage of students unable to read more than 10 words of the passage for both intervention groups; an increase of +2.4% in comparison schools and +0.3% in partner schools. Cohorts 2 and 3 saw slight decreases in these percentages, regardless of intervention group: -2.0% in Cohort 2 comparison schools, -1.3% in Cohort 2 partner schools, and -0.1% in Cohort 3 partner schools. The percentage of students in partner schools reading between 0 and 10 cwpm has remained consistent during the USAID PRIORITAS intervention; comparison schools showed more mixed outcomes, increasing by over 2% in Cohort 1 and decreasing by 2% in Cohort 2.

Given these changes in ORF, it should be stated that the percentage of students who have moved into the "fast reader with strong comprehension" category has increased from baseline to endline across all cohorts. For instance, students in partner schools had an 18.6% increase, while those in comparison schools had a 21.1% increase (see **Figure 18**). The observed endline average rates for each sampled group within each cohort surpass the recommended 60 correct words per minute required for adequate comprehension.⁷ At endline, approximately 66.2% of partner school students and 58.3% of comparison school students are scoring above 60 cwpm. When word recognition is automatic and seemingly effortless, it frees cognitive attention for comprehension.

⁶ Abadzi, H. 2010. *Reading Fluency Measurements in EFA FTI Partner Countries: Outcomes and Improvement Prospects*. Washington, D.C.: World Bank. Available at <http://www.globalpartnership.org/media/cop%20meeting/resources/working-papers/Reading%20Fluency%20Measurements%20in%20EFA%20FTI%20Partner%20Countries-%20Outcomes%20and%20Improvement%20Prospects.%20%20Helen%20Abadzi.pdf> (accessed on May 16, 2013).

⁷ Ibid.

Figure 15: Distribution of Sample Scores for Oral Reading Fluency



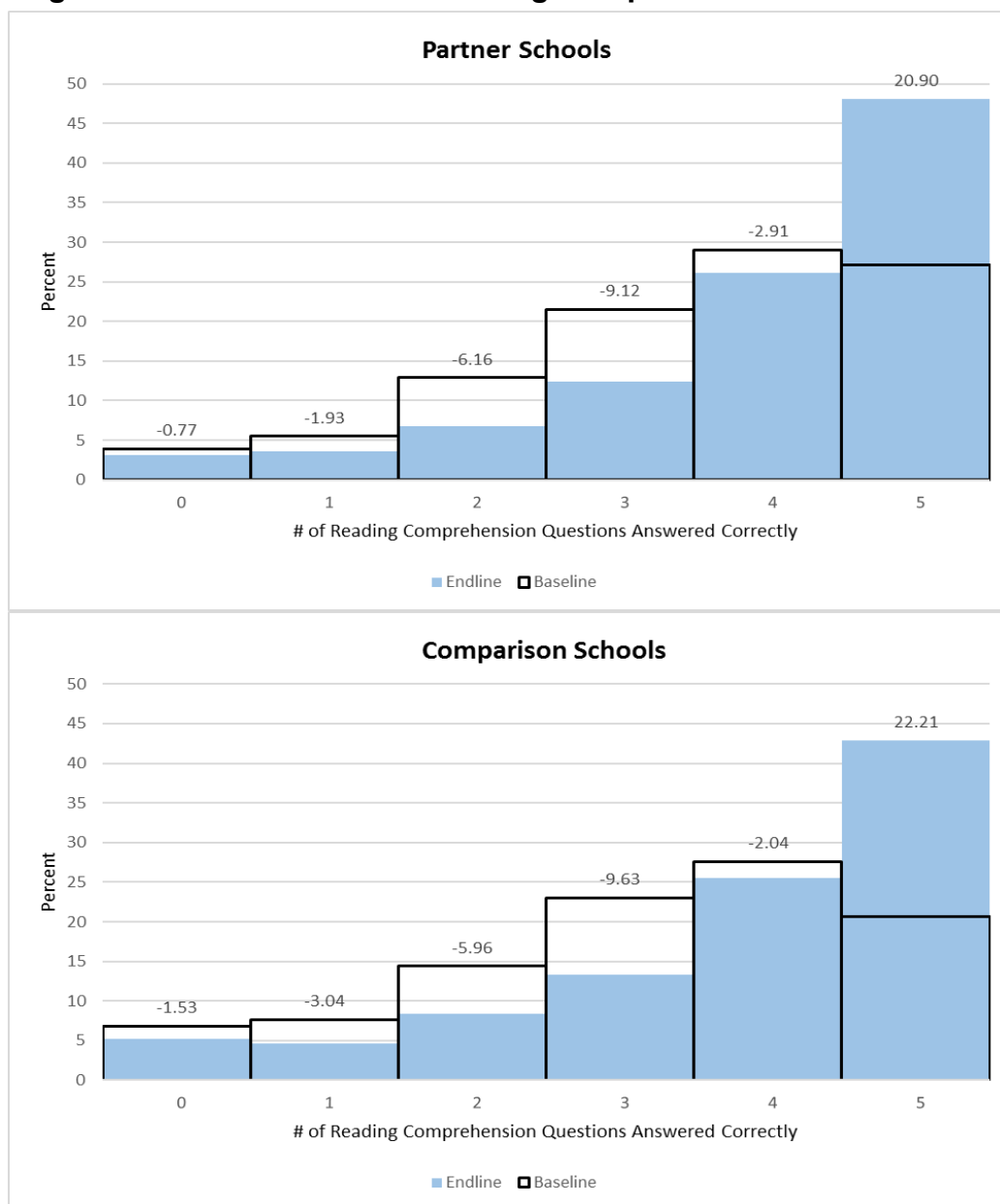
3.2.5 Reading Comprehension

On the completion of the ORF subtask, students were asked five questions as a measure of comprehension of what they had read. The questions were read aloud by the assessor, and students answered verbally. At baseline, three or four of the questions were literal, requiring students to recall information from the story, and one or two question(s) were inferential, requiring students to combine information from the story with their background knowledge to derive a correct answer. Cohort 1 had three literal and one inferential questions and Cohorts 2 and 3 had two literal and three inferential questions at baseline. At endline, three questions were literal and two questions were inferential. Students were asked comprehension questions corresponding only to the text he or she had attempted. Thus, the number of questions attempted was dependent on how many words the child had read in the text.

Therefore, for this subtask, the sample size is different for each of the five questions. Children’s reading comprehension scores are reported in the number of correct responses to the five questions.

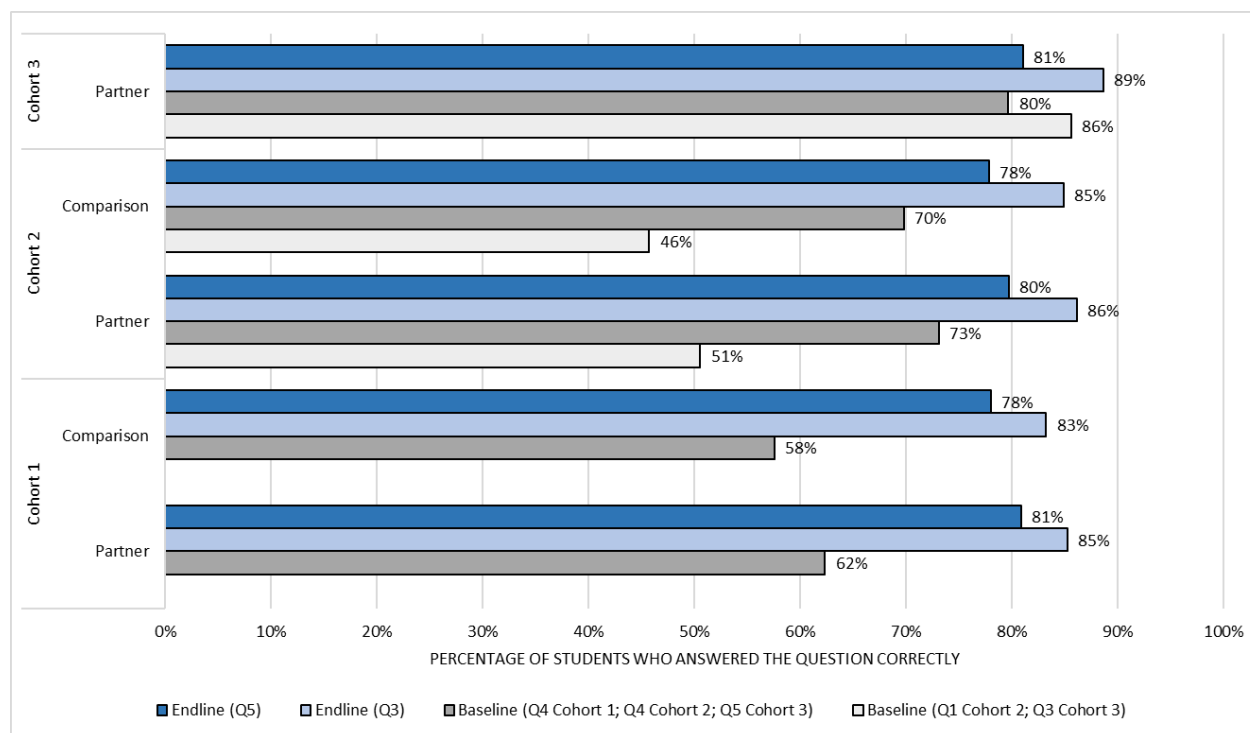
Overall, children in the sampled comparison schools correctly scored, on average, 3.2 out of 5 at baseline and 3.8 out of 5 at endline. Sampled partner schools scored, on average, 3.5 out of 5 at baseline and 4.0 out of 5 at endline. Clearly, both sampled groups were scoring higher at the endline. **Figure 16** illustrates the distributional shift from baseline to endline for each sampled group. There is a shift toward more students being able to answer all five questions correctly, as supported by an average increase of 21.6% of students answering all 5 questions correctly at endline, compared to baseline, regardless of sampled group. In Cohorts 1 and 2, where comparison schools were also sampled, partner schools had at least a 1.7% increase, from baseline to endline, in the percentage of students scoring a perfect score in reading comprehension compared to comparison schools.

Figure 16: Distribution of Reading Comprehension Scores



This trend is further supported by student performance on the inferential reading comprehension questions. The baseline and endline assessments each contained two inferential questions, except for Cohort I, which only had one inferential question at baseline. Performance on inferential questions was mixed, depending on the cohort and intervention phase. Results at endline were similar on both inferential questions 3 and 5, with at least 78% of students able to answer at least one of the inferential questions correctly, regardless of sampled group and cohort. These results are detailed in **Figure 17**.

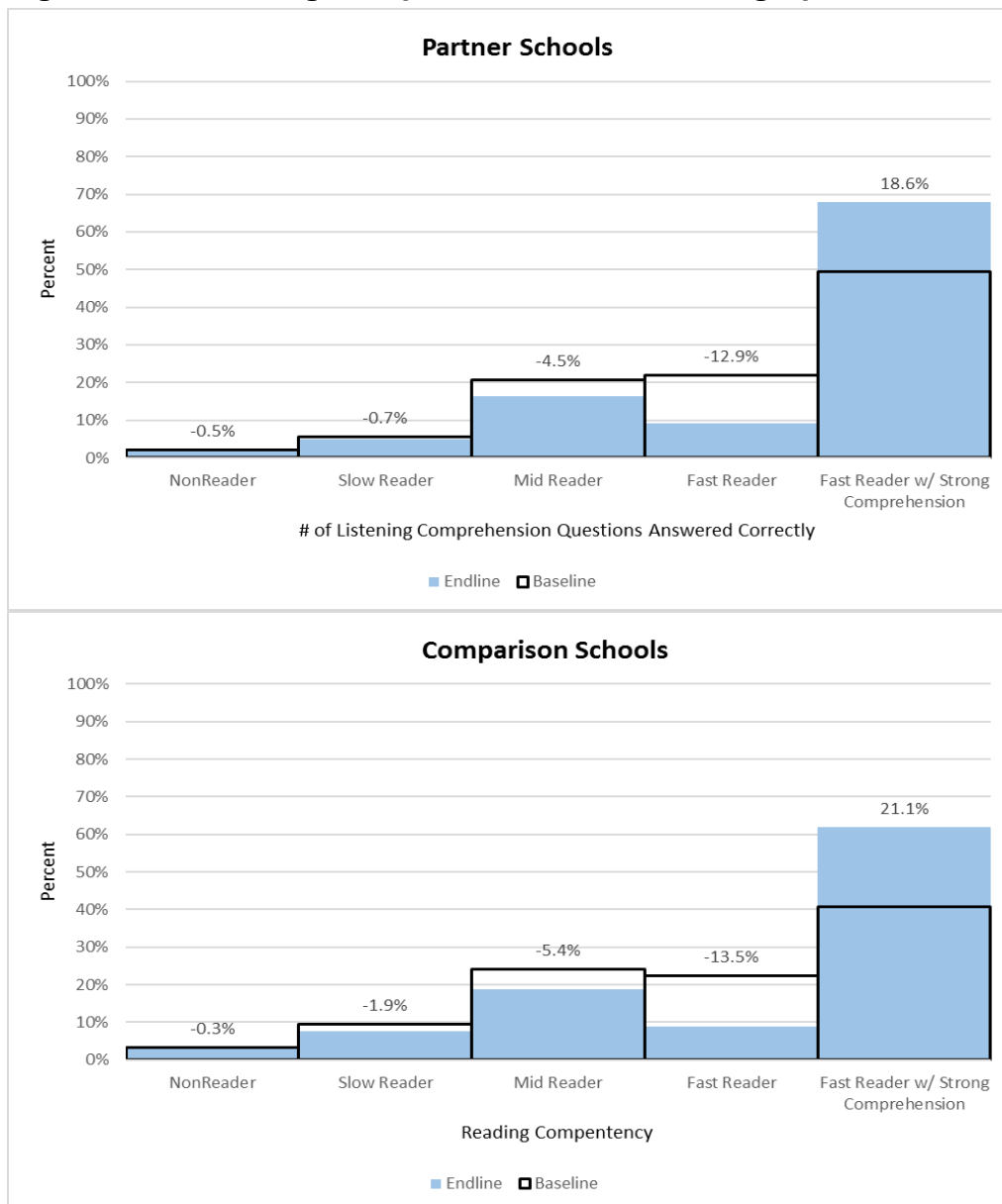
Figure 17: Reading Comprehension Inferential Question Analysis



Given the observed trends in similar oral reading performance and increased reading comprehension over the course of the project, a further distribution that combines the speed a student reads with their level of comprehension was examined. This categorization was adopted from the 2014 National EGRA and Snapshot of School Management Effectiveness Survey report of findings. A stark change from baseline to endline was observed in the percentage of students able to read at least 51 cwpm and answer 80% or more of the reading comprehension questions correctly; this is classified as the “fast readers with strong comprehension” category in **Figure 18**.

In partner schools, the number of students able to read at least 51 cwpm without strong comprehension (i.e., “Fast Reader”) decreased by -12.9%, and students able to read at least 51 cwpm with strong comprehension increased by +18.6% from baseline to endline. This difference is a result of students shifting into a higher category of reading ability; comparison schools demonstrated a similar trend. This trend further supports the hypothesis that many Indonesian students in sampled schools were reading at grade 3 proficiency at baseline, and over the time of the USAID PRIORITAS intervention, teacher training has developed student ability to comprehend text as well as read proficiently.

Figure 18: Reading Comprehension and Reading Speeds over Time



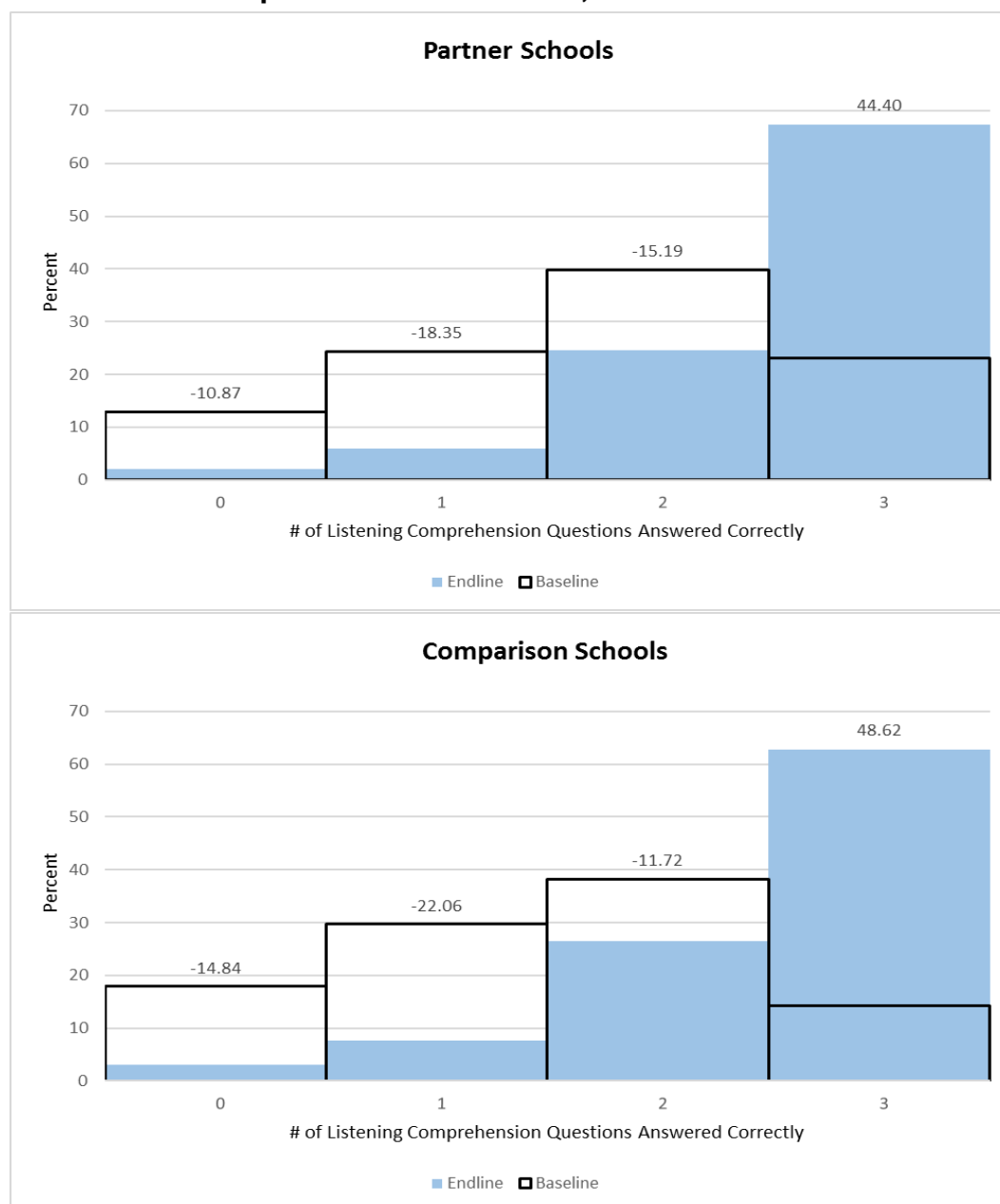
3.2.6 Listening Comprehension

The listening comprehension subtask assessed students’ comprehension of verbally presented information. Children listened to a short story read by the assessor. They were then asked three questions about the story and were required to respond. The questions included two literal questions, which could be answered by information stated directly in the story, and one inferential question, which required connecting information in the story to outside knowledge or information. Scores from the listening comprehension subtask can be used to determine whether poor reading comprehension can be attributed to poor reading or to poor language comprehension skills in general.

On average, children in the sampled partner schools correctly answered 2.6 questions on the listening comprehension while students in comparison schools correctly answered 2.5 questions by endline. In partner schools, the percentage of students able to answer all three listening comprehension questions correctly increased from baseline to endline by 44.4%. At baseline, most partner students (62.8%) were able to answer at least two of the three

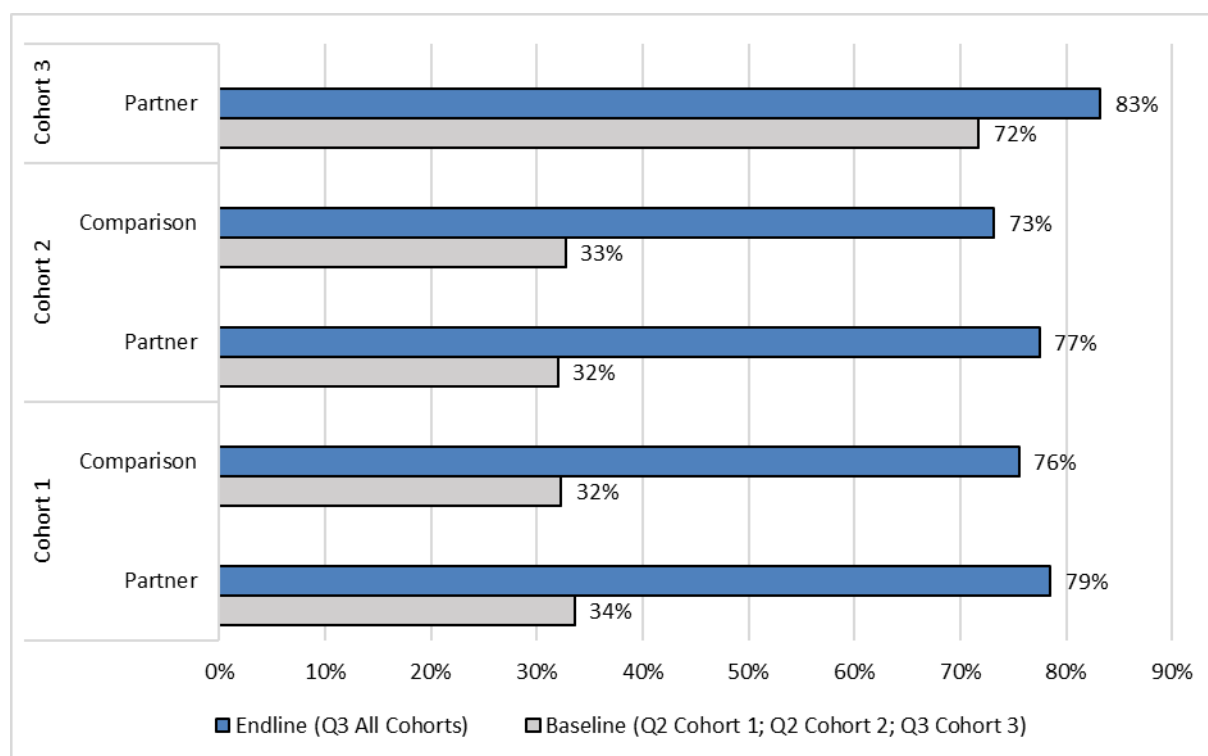
questions correctly; at endline, the majority of partner students (67.4%) answered all three questions correctly. Comparison schools followed a similar trend, with 52.4% of students at baseline able to answer at least two of the three questions correctly, and 62.8% of students at endline able to answer all three questions correctly. These increases were the largest for students attending partner schools in Cohorts 1 and 2. **Figure 19** shows the distributional shifts from baseline to endline for listening comprehension.

Figure 19: Percentage of Children Correctly Answering Listening Comprehension Questions, Overall



At baseline, at most 33.6% of students sampled were able to answer the inferential question in Cohorts 1 and 2. At endline, in both sampled groups within Cohorts 1 and 2, at least 73.2% of sampled students were able to answer the inferential question correctly. The increase was smaller for Cohort 3 partner schools. This trend is detailed in **Figure 20**. As was also revealed by their scores in reading comprehension, children appear to comprehend the listening passage better at endline compared to baseline.

Figure 20: Percentage of Children Correctly Answering Inferential Listening Comprehension Questions, by Cohort



3.3 Indicators of Reading Achievement

Many factors influence a student’s literacy skills. While a child’s EGRA subtask scores are shaped by school instruction, there are factors outside of school that influence a child’s development. These could be experiences prior to grade school (e.g., attending pre-school) or current environmental factors (e.g., parental support).

The identification of factors that influence student academic performance has guided education and social policy in many countries. Policies such as these could be implemented in schools, for example, in the form of teacher training or resource allocation. Alternatively, these policies could support families by subsidizing pre-school fees.

To help identify these factors, EGRA assessors asked each student a series of questions regarding demographics that have been identified previously as influential in affecting student academic performance. This section discusses the relationship between EGRA subtasks and these self-reported demographic factors.

3.3.1 Regression Analysis of Demographic Indicators of Reading Achievement

To explore the effect of the USAID PRIORITAS intervention over time, or the intervention-by-time effect, a linear regression model was applied to model mean ORF, and logistic regression models were also applied to model the probability of students scoring a zero on ORF, comprehending at least 80% of the reading passage, and reading with fluency and comprehension. Given the cohort differences highlighted previously, an overall model was not applicable to the entire USAID PRIORITAS dataset; but rather individual cohort models were used for each outcome mentioned above. The models are presented in **Annex K** and referred to in this section of the report.

Holding demographic and study design traits constant, students in partner schools in Cohort 1 read +4.5 cwpm faster than students in Cohort 1 comparison schools, and students in Cohort 2 partner schools read nearly +3.0 cwpm faster than students in Cohort 2 comparison schools. These differences were statistically significant. Models indicate that students at endline scored, on average, at least +2.1 cwpm above students at baseline, regardless of cohort; this difference was significant in all ORF models.

Despite these main effect differences between sampled group and time, the interaction of these two covariates resulted in an average difference of, at most, +1.4 cwpm; none of these terms were significant. This result provides little evidence of an intervention-by-time effect, based on the sampled students at baseline and endline, when other factors are controlled. This does not indicate an absence of an increase due to the intervention; rather, it is difficult to conclude how much the intervention has contributed to the increase observed in student scores, because over 71% of the comparison school also received some form of training.

When controlling for the other variables, the regression models show that gender, province, school location, age, speaking Bahasa Indonesia at home, having books at home, parents reading to children at home, and attending pre-school are all strongly associated with a measurable impact on average student scores. Individual models were applied for each exit interview question to accurately estimate the effect that speaking Bahasa Indonesia at home, having books at home, parents reading to children at home, and attending pre-school had on student performance. Apart from gender and province, which are detailed in Section 3.1 and highlighted below, the strongly associated variables are further explored in the following Section 3.3.2.

One unusual observation from the regression models is the negative coefficient for parents reading to children. In other words, a student's cwpm score decreased when his/her parents read to him/her at home. This trend seems to hold true across all models. Similar trends have been observed in every evaluation of the USAID PRIORITAS cohorts. This type of result is typically not the case, but it could be due to parents investing more time in children who struggle with reading, while they allow more independence to those children who are capable of reading.

School faith and school type presented mixed results. For Cohort 1, when holding all other variables constant, students in private schools read -7.1 cwpm **slower** than students in public schools, and students in secular schools read -5.0 cwpm **slower** than students in religious schools; both results were statistically significant. However, students in Cohort 2 secular schools scored +3.1 cwpm **faster** in reading than students in Cohort 2 religious schools; this result was also significant. In Cohort 3, secular and religious schools scored similarly, as did public and private schools.

Some private schools in the sample were private madrasah schools, which are generally under-resourced and tend to have many underqualified teachers, thus the results from Cohort 1 are intuitive. However, these results seem quite counterintuitive for Cohort 2 and were discussed in the Cohort 2 Midline Report. The findings indicated that secular schools outperform religious schools, regardless of school type, in familiar word reading, invented word decoding, and ORF. Within secular schools, private schools outperform public schools in invented word decoding and ORF.

There were differences between the performance of students who were 7, 8, 9, and 10 years old or older when controlling for other demographic and study characteristics. Seven and 8-year-old students read faster than students 9 or older. Children 10 or older read on average between -12.4 and -16.0 cwpm **slower** than 7-year-old students, depending on cohort. Since

many of the older students may have been held back due to underdeveloped reading skills, this could explain the large discrepancy in reading scores between the students, based on age. Generally, students between ages 7 and 8 perform, on average, better than their older peers when other demographic characteristics are held constant.

A student's province produced the largest impact, which highlights the low performance of students in schools sampled in Aceh compared to the other regions. Most notably, on average, students in East Java read at least +21.5 cwpm faster on the ORF subtask than students in Aceh. Following East Java, students in West Java and Central Java read, on average, at least +16.6 cwpm faster than students in Aceh.

The poorer performing provinces showed more variety between cohorts based on the individual models. In Cohort 1, Banten students read at speeds comparable to those of sampled students in Aceh, and students in South Sulawesi read at speeds comparable to those in North Sumatra. Students in Aceh or Banten read about -8 cwpm **slower** than students in South Sulawesi and North Sumatra and about -20 cwpm **slower** than students in West, Central, or East Java. In Cohort 2, however, Banten students performed like those in West and Central Java, and South Sulawesi students performed similar to Aceh students. Thus, in Cohort 2, North Sumatra read, on average, +12.2 cwpm faster; Banten, West Java, and Central Java read about +20 cwpm faster; and East Java read +29.1 cwpm faster than students in South Sulawesi or Aceh.

3.3.2 Strongly Associated Indicators

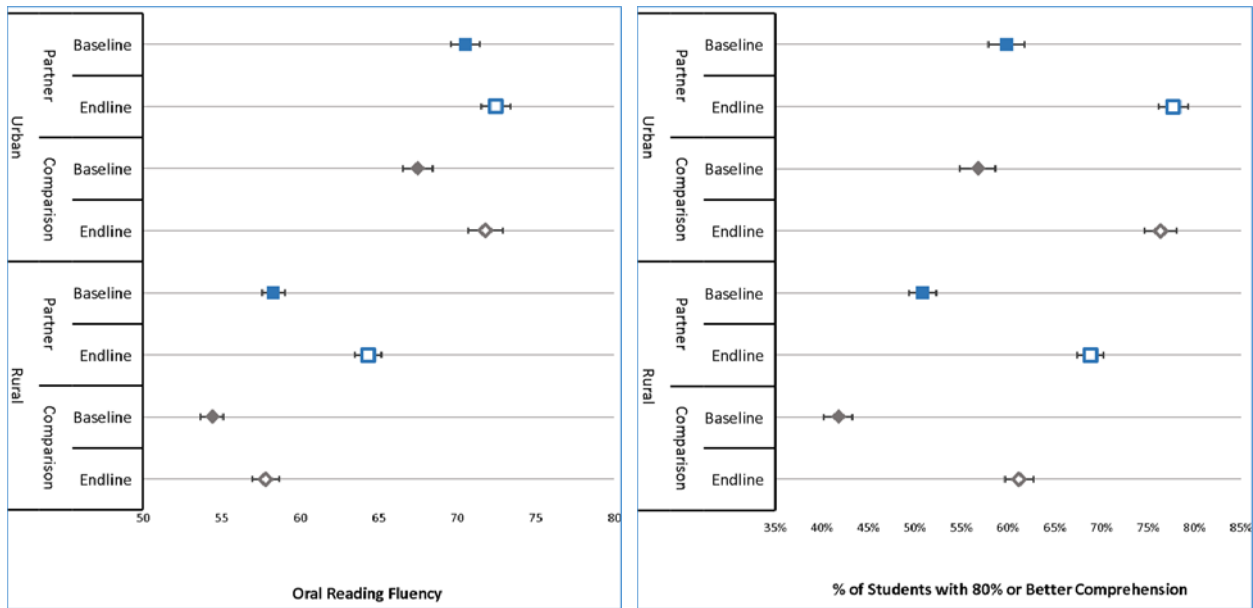
School Location (Urban and Rural)

Globally, children who live in urban areas tend to demonstrate better literacy rates than children in rural areas. This tendency held true for the students in the study as shown by the regression models, where urban students, on average, outscore their rural counterparts in ORF by at least +9.4 cwpm and are at least 61% more likely to comprehend at least 80% of the reading passage, when demographic features are controlled based on Cohort 1 and 2 models. In Cohort 3, with the simulated comparison group, these numbers decrease slightly to +6.4 cwpm and 48%. Students that attend urban schools more easily have access to services, such as pre-school and libraries, that are often unavailable in more rural areas.

Within school location and in respect to sampled group, students improved in all comprehension subtasks from baseline to endline. At baseline, rural partner school students noticeably outperformed rural comparison school students in all subtasks. These differences remained at endline. At baseline and endline, urban partner and comparison school students performed similarly on all subtasks. These trends are detailed in **Annex K**.

Figure 21 shows the ORF and percentage of students reaching 80% or better reading comprehension for urban and rural partner and comparison schools, at baseline and endline. Although students in urban schools outperformed students in rural schools, both groups saw impressive increases in the percentage of students reaching 80% reading comprehension between baseline and endline. In urban partner and comparison schools, around 77% of students reached this threshold for reading comprehension. In rural schools, the percentage was between 61% and 69%.

Figure 21: Reading Proficiency Trends over Time and Intervention by School Location, Overall



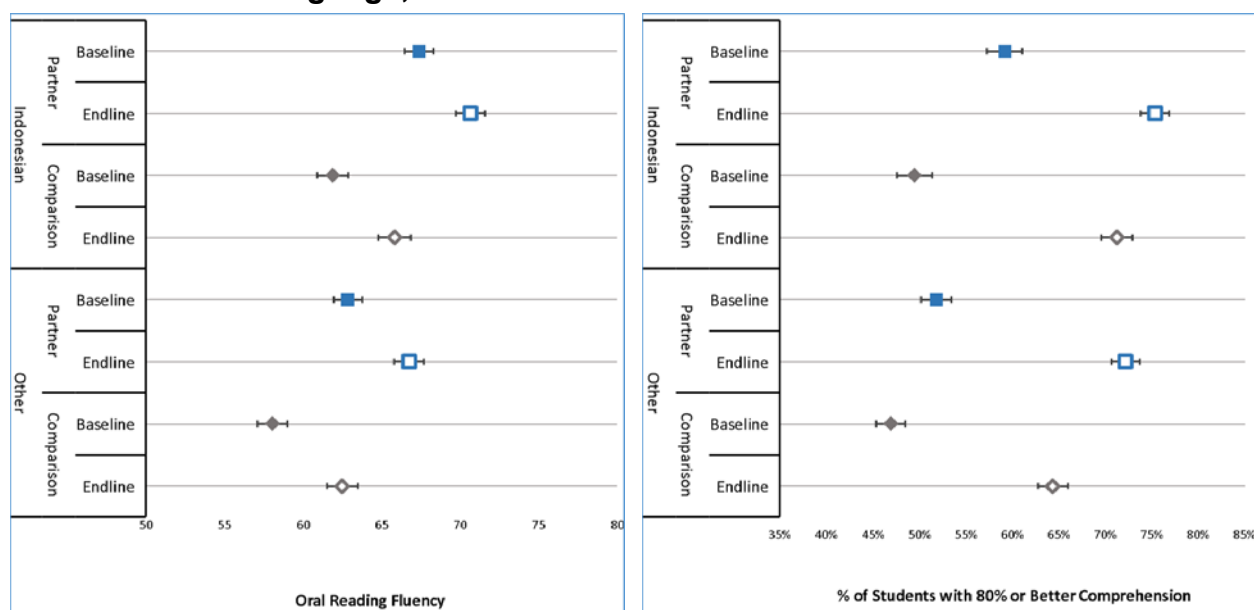
¹ Point estimates reflect mean estimates. Bounds around each mean estimate represent the 95% confidence interval for that mean estimate.

Language Used at Home

If a student speaks a language at home that is different from the instructional language used in the classroom (in most cases, Bahasa Indonesia), that student had noticeably lower literacy skills, on average, at baseline, compared to students who speak the same language at home as the instructional language (Bahasa Indonesia) used in the classroom. This premise was supported by the regression model for language used at home, where speaking Bahasa Indonesia at home increases a student’s average ORF by +4.3 cwpm in Cohort 1, +7.9 cwpm in Cohort 2, and +1.6 cwpm in Cohort 3, compared to students that speak another language at home. This increase was significant in Cohorts 1 and 2.

Among students who spoke Bahasa Indonesia (the instructional language) at home and school, the partner school students demonstrated stronger oral reading ability than those in comparison schools at baseline and endline. **Figure 22** below shows the ORF and reading comprehension growth for students who speak Bahasa Indonesia or another language at home in partner and comparison schools, for baseline and endline. Students who spoke Bahasa Indonesia at home and received the USAID PRIORITAS intervention had the highest percentage, with 75.3% of these students reaching 80% comprehension.

Figure 22: Reading Proficiency Trends over Time and Intervention by Home Language, Overall



¹ Point estimates reflect mean estimates. Bounds around each mean estimate represent the 95% confidence interval for that mean estimate.

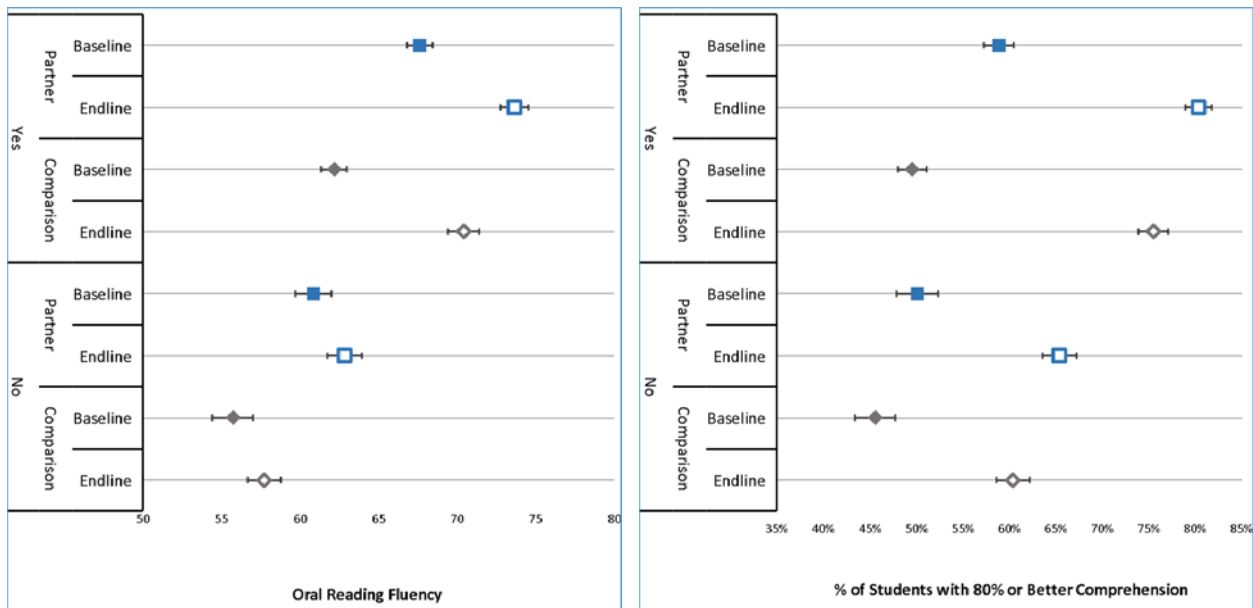
Access to Books at Home

Access to books at home offers children early familiarity and practice that benefit literacy skills. A large body of research indicates that books at home offer the potential for an early start in building foundational skills and vocabulary and in hearing models of fluent reading. These skills help children to learn that reading has multiple purposes beyond academics. This premise was supported by the regression model for access to books at home, where having access to books at home increased a student’s average ORF by between +5.5 and +6.7 cwpm depending on cohort.

Within the access to books at home classification, partner school students scored higher on oral reading compared to comparison school students at baseline and endline. Partner school students with access to books at home scored significantly higher on reading comprehension compared to comparison students with access to books at home. In addition, as shown in **Figure 23** below, roughly 80.4% of students in partner schools achieved reading comprehension scores of 80% or better at endline, compared to 58.9% at baseline; an increase of 21.5%.

Partner school students who have access to books at home, and comparison school students who have access to books at home, increased at similar rates on all subtasks from baseline to endline. A possible reason behind this trend is that students with access to books typically come from wealthier families. Due to the socioeconomic impact, these families with more resources will invest more time in their children using the books. So regardless whether the student was in partner or comparison school, the socioeconomic factor may be impacting the effect that having access to books may have on reading skills. In addition, this difference in rate of improvement is most likely due to the lower baseline scores of students without access to books at home; these students likely had more room for improvement than their counterparts who had access to books at home.

Figure 23: Reading Proficiency Trends over Time and Intervention by Access to Books at Home, Overall



¹ Point estimates reflect mean estimates. Bounds around each mean estimate represent the 95% confidence interval for that mean estimate.

Pre-school Education

Most notable on a child’s reading performance is the effect of attending pre-school. Pre-school plays an important role in developing early literacy, numeracy, and social skills, and thus helps prepare students for success in grade school. This premise was supported by the regression model for pre-school education, where attending pre-school increases a student’s oral reading fluency between +7.6 and +13.6 cwpm, depending on cohort.

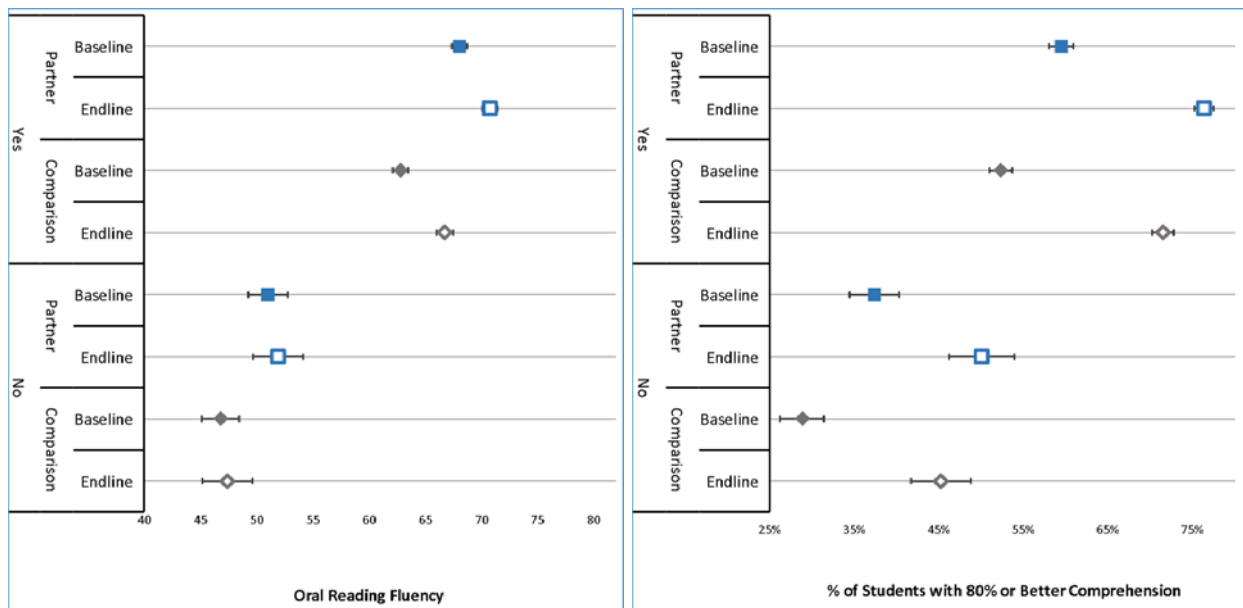
Of the students in the sampled schools at baseline and endline, 12.8% reported that they had **not** attended pre-school. More significant is that over twice as many students in rural schools had **not** attended pre-school (17.9%), compared to students at urban schools (8.4%).

At baseline, among students who attended pre-school, the sampled partner school students performed better than the comparison school students on all six reading subtasks. Although the difference in average scores between the two sampled groups decreased at endline, sampled partner school students that had attended pre-school continued to outperform their counterparts in comparison schools. From baseline to endline, scores for both the partner and the comparison school students who had not attended pre-school increased in invented word decoding, oral reading fluency, reading comprehension, and listening. However, these score increases, for every subtask except listening comprehension, were not as large as for students who had attended pre-school. The gap between partner and comparison school performance among students who **had not** attended pre-school was larger than the gap between partner and comparison school performance among students who **had** attended pre-school. From baseline to endline, scores for both the partner and the comparison school students without a pre-school education increased in letter-name knowledge, invented word decoding, reading comprehension, and listening comprehension. On every subtask except reading comprehension, the average performance gap between partner school students and comparison school students was largest for those students who had not attended pre-school. This difference was most noticeable in letter-name knowledge, where at endline, partner school students **without** pre-school experience identified +4.7 clpm more than similar

comparison school students, in contrast to only +1.6 clpm difference for partner versus comparison school students **with** pre-school experience.

As seen in **Figure 24** below, the percentage of students, who reached 80% reading comprehension, increased between baseline and endline, regardless of whether they attended pre-school. Logistic regression models also show that, when everything else is held constant, students who attended pre-school were 2.4 times more likely to read with comprehension and were 2.8 times less likely to score zero on reading comprehension, as compared to students who did not attend pre-school.

Figure 24: Reading Proficiency Trends over Time and Intervention by Pre-School Attendance, Overall



¹ Point estimates reflect mean estimates. Bounds around each mean estimate represent the 95% confidence interval for that mean estimate.

4 How Well Teachers Are Teaching Reading in the Early Grades

Every year, USAID PRIORITAS repeated a qualitative assessment on how reading in early grades is taught in schools, to better understand the approaches used in the classroom as well as the reading support students are receiving.

The annual monitoring, including endline monitoring, collected the same kind of information from the same schools that were surveyed since baseline collection, to assess the changes that had taken place over a four-, three-, and two-year period of intervention for Cohorts 1, 2, and 3 schools, respectively.

4.1 Monitoring Instruments and Procedures

The assessment of the quality of reading instruction included three indicators. The first indicator (I.R2) involved classroom observations of grade 1 and grade 2 teachers, each observation taking 35 minutes. This indicator measured whether the teacher demonstrated good practices when teaching and assessing reading and consists of the six sub-indicators for good practice in teaching reading. To qualify for demonstrating good practice in teaching reading, a teacher would have to meet at least five of the following sub-indicator criteria

<p>1.R2 Early grades teachers demonstrate good practice in teaching and assessing reading</p>	<p>% of early grades teachers demonstrating <u>at least five</u> of the following:</p> <ul style="list-style-type: none"> a. Provides specific grade-appropriate instruction to the learner to build word knowledge and teach word analysis.⁸ b. Provides opportunities for students to engage in sustained reading activities⁹ to practice their reading skills. c. Creates a literacy rich¹⁰ classroom environment. d. Checks students' comprehension of what they are reading.¹¹ e. Reads aloud to students/asks students to read aloud using a range of materials¹² to enhance children's print and phonological awareness. f. Conducts regular and purposeful monitoring of children's progress in reading.¹³
--	--

The second indicator (I.R6) consisted of interview questions for the early grade teachers whose classes were observed. The interviews focused on reading time and whether teachers allowed students to take books home. This indicator was aimed to assess whether early grade teachers conducted regular reading periods with their classes and, if they did, how frequently this occurred and, on average, the duration of each reading period.

<p>1.R6 Early grades reading materials are regularly used</p>	<p>% of early grades classes where there are both</p> <ul style="list-style-type: none"> a. Regular reading periods b. Students take books home to read
--	---

⁸ Phonemic awareness, phonics, word recognition, structural analysis, context clues, and vocabulary.

⁹ This can be silent or oral reading, individual or small group reading.

¹⁰ A literacy rich environment includes displaying words and print in and possibly outside of the classroom and providing opportunities, materials, and tools that engage students in reading activities, including, for example, creating book corners to ensure that students have access to a range of interesting material, in different media appropriate to the reading/instructional levels.

¹¹ Talks to students about what they are reading, asks them to re-tell events and details, asking them to predict next events.

¹² Including repetitive texts, rhymes, poems, and songs.

¹³ This includes listening to individual children read aloud, keeping progress records, and observation of students reading.

The third indicator (2.R3) involved questions for a focus group discussion with school principals, supervisors, school committees, and senior teachers whose classes were not observed. The focus group discussions aimed to establish what schools were doing to promote a reading culture. This indicator assesses what school managers are doing to initiate programs that promote a school reading culture. At least three of the sub-indicator criteria must be met to be qualified.

2.R3: Schools' managers initiate activities to create a school reading culture	<p>% of schools which plan for and implement initiatives to support reading in at least three of the following:</p> <ol style="list-style-type: none"> Include school reading policies in their improvement plans Use funds to purchase age-appropriate reading materials (non-text book) Upgrade school libraries Establish reading corners Set aside specific reading times during school hours Establish reading clubs Involve parents in reading activities Set up systems for home-based reading Others
---	---

4.2 Design

Classroom observations at endline were conducted in grade 1 and grade 2 classrooms in 200 partner primary schools for Cohorts 1, 2, and 3, and 169 comparison schools in Cohorts 1 and 2 in seven provinces across Indonesia. These were the same schools in which EGRA was administered. The total number of sampled primary schools and early grade teachers, by cohort, can be seen in the following **Tables 13 and 14**, respectively.

Table 13: The Total Number of Sampled Primary Schools, by Cohort and Year of Monitoring

Cohort	Partner					Comparison				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Cohort 1	92	92	90	92	92	92	92	88		89
Cohort 2		80	80	80	80		80		80	80
Cohort 3			28	28	28					
Grand Total	92	172	198	200	200	92	172	88	80	169

Table 14: The Total Number of Sampled Early Grade Teachers, by Cohort and Year of Monitoring

Cohort	Partner					Comparison				
	2012	2013	2014	2015	2016	2012	2013	2014	2015	2016
Cohort 1	184	184	180	184	184	184	184	176		178
Cohort 2		160	160	160	160		160		160	160
Cohort 3			56	56	56					
Grand Total	184	344	396	400	400	184	344	176	160	338

4.3 Findings

This section presents the results of the monitoring in sampled partner schools and comparison schools for the three indicators related to EGRA, i.e., (1) early grade classroom teaching, (2) the use of early grade reading materials, and (3) school reading programs. Below is a summary of the baseline, midline, and endline school monitoring results.

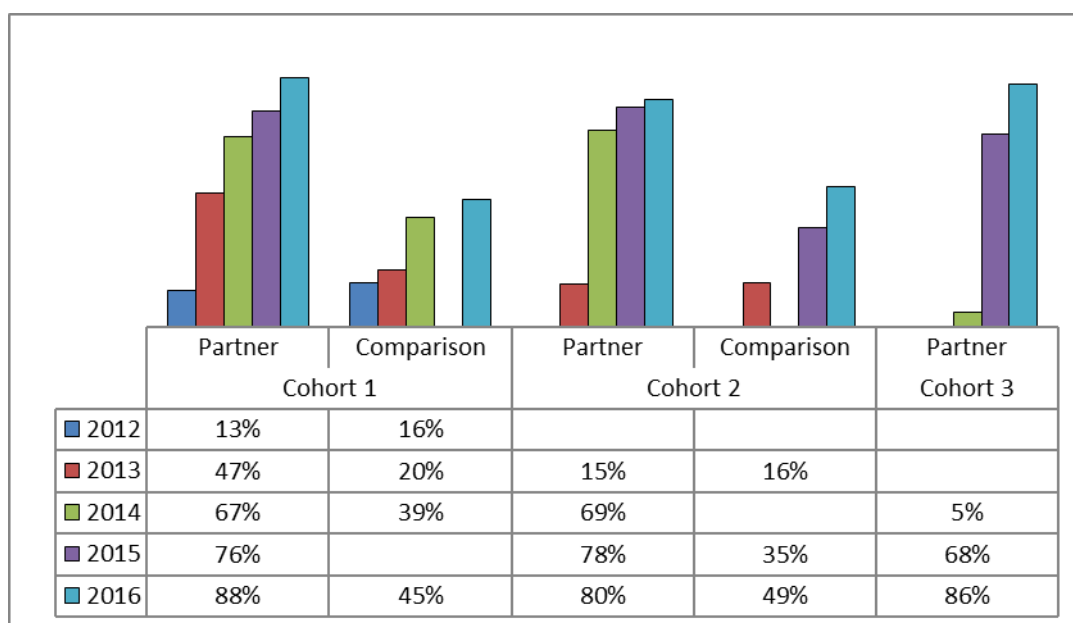
1. The overall trend in the three cohorts shows that steady improvements were taking place in all indicators; trends are presented in **Annex E**. The biggest improvement was from baseline to midline. Modest improvements were still taking place from midline to endline, but not as impressive as improvements made between baseline and midline.
2. Improvements were made among comparison schools, but the level of improvements was not as high and not as steady as in the partner schools.

The achievement made by Cohort 3 for all three indicators was outstanding. In the two years of program intervention (2014–2016), the achievement made by Cohort 3 at endline was very close to the achievement of Cohort 1 in four years (2012–2016) and Cohort 2 in three years (2013–2016), or in some cases, even higher. Cohort 3 districts applied and voluntarily expressed an interest in joining the project, which may reflect their strong commitment and capacity, and this may have contributed to the outstanding performance.

4.3.1 Early Grade Teachers Demonstrate Good Practice in Teaching (I.R1)

Figure 25, below, presents the percentage of early grade teachers who met the criteria of demonstrating good practice in teaching and assessing reading.

Figure 25: Percentage of Early Grade Teachers Demonstrating Good Practice in Teaching and Assessing Reading



As **Figure 25** indicates, there has been more than a six-fold increase in four years in the percentage of early grade teachers in Cohort 1 partner schools who demonstrate good practice in teaching, increasing from 13.0% at baseline to 88% at endline. During the same period, the percentage for comparison schools also increased, but to a lesser degree, from 16% at baseline to 45% at endline. The situation for Cohort 2 is almost similar. The progress in Cohort 3 partner schools is quite impressive: in only two years, the percentage of early grade teachers who demonstrate good practice reaches about the same level as in Cohort 1 and Cohort 2.

The analysis of each of the six sub-indicators (a–f)¹⁴ of the early grade teachers’ teaching performance in teaching and assessing reading (I.R2) indicates that across all the cohorts at baseline, the two highest percentages were found in sub-indicator b, “Provides opportunities for students to engage in sustained reading activities to practice their reading skills,” and sub-indicator e, “Reads aloud to students/asks students to read aloud using a range of materials to enhance children’s print and phonological awareness.” Therefore, although the percentages reached at endline were 90% or above, the percentage increases in these two areas were the least compared to other areas.

Two areas where teachers made the most improvement were demonstrated in sub-indicator c, “Creates a literacy rich classroom environment,” and sub-indicator d, “Checks students’ comprehension of what they are reading.” The percentages for sub-indicator c, from baseline to endline, increased from 33% to 92% for Cohort 1, from 20% to 89% for Cohort 2, and from 16% to 88% for Cohort 3. The percentages for reading comprehension (sub-indicator d) from baseline to endline increased more than three-fold, from between 23–25% to between 84–87%. During the endline assessment across the cohorts, the percentages of teachers who practice at least five of the six sub-indicators increased dramatically from between 5% to 15% at baseline to over 80%.

4.3.2. Early Grades Reading Materials are Regularly Used (I.R6)

Figure 26 below shows steady increases of percentages of early grade classes, where early grade reading materials are regularly used for I.R6¹⁵ since baseline in all three cohorts. The percentages also increased in comparison schools during the same period, but not by as much as in partner schools.

¹⁴ (a) Provides specific grade-appropriate instruction to the learner to build word knowledge and teach word analysis.

(b) Provides opportunities for students to engage in sustained reading activities to practice their reading skills.

(c) Creates a literacy rich classroom environment.

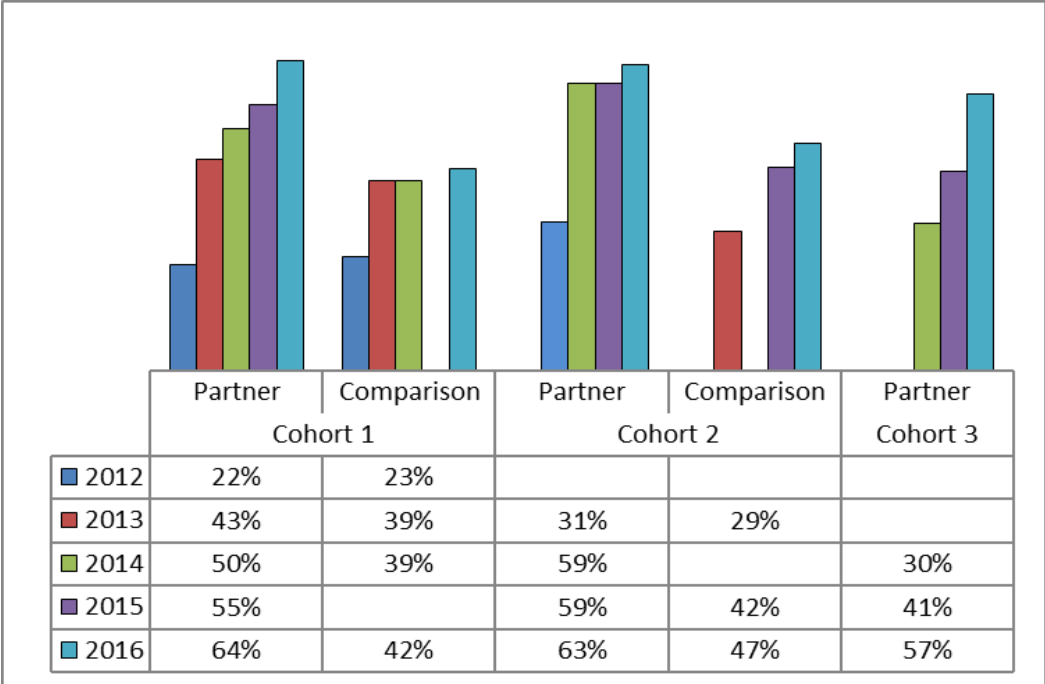
(d) Checks students’ comprehension of what they are reading.

(e) Reads aloud to students/asks students to read aloud using a range of materials to enhance children’s print and phonological awareness.

(f) Conducts regular and purposeful monitoring of children’s progress in reading.

¹⁵ Sub-indicators for I.R6 being: (a) Regular reading periods, and (b) Students take books home to read.

Figure 26: Percentage of Early Grade Reading Materials are Regularly Used



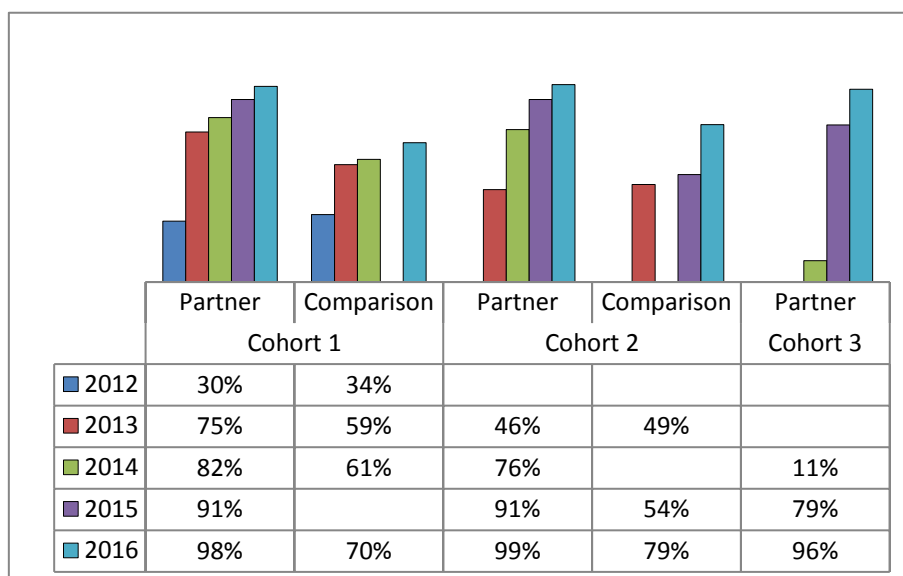
The analysis for sub-indicator a, “Regular reading periods” indicates a significant increase, from baseline to midline, in the percentages of early grade classes that have regular reading periods, both in partner and comparison schools (from 45% to 91%) and that have almost reached 100% at endline.

For the second sub-indicator b, on “Students take books home to read,” in partner schools, the percentage of schools that allowed students to take books home to read increased from 41% at baseline to 64% at endline for Cohort 1, from 35% to 63% for Cohort 2, and from 38% to 43% for Cohort 3. In comparison schools, however, the percentages in the endline stay the same as at baseline (42%) for Cohort 1 and increased only 3% from 44% to 47% for Cohort 2. Apparently, the comparison schools have stricter rules regarding taking books home.

4.3.3. School Managers Initiate Activities to Create a School Reading Culture (2.R3)

As **Figure 27** shows, baseline data indicates that the three cohorts started with three different percentages for indicator 2.R3, “Schools’ managers initiate activities to create a school reading culture”: 30% in Cohort 1, 46% in Cohort 2, and 11% in Cohort 3. By endline, all the sampled partner schools in the three cohorts reached almost the same percentages of over 90%. The percentages of sampled comparison schools also increased, but not by as much as those in sampled partner schools. In all the cohorts, the biggest increases were in the first years of project intervention, and the percentages continued to increase until endline, ranging between 96% and 98%.

Figure 27: Percentage of Primary Schools where Managers Initiated Activities to Create a Reading Culture



The sub-indicators for 2.R3¹⁶ can be roughly categorized into two groups of activities: the first group represents the activities in schools, where the managers have more control (a–e), and the second group represents the activities that could take place outside of the schools (f–h), where the community and parents are expected to be more active.

As shown in **Figure 27**, the percentages of schools that implement the first five sub-indicators are higher than the last three. Relatively high percentages of partner schools “use funds to purchase age-appropriate reading materials” (b) and “upgrade school library” (c) in all rounds of monitoring; most likely because the government provided support for schools to build libraries and purchase books. In addition, in the past two years of project implementation, the project distributed reading books to partner and comparison schools.

The percentages of schools that implemented the last three activities ([f] establish reading clubs, [g] involve parents in reading activities, and [h] set up systems for home-based reading) were found to be relatively low at baseline, although there had been some improvement in the following years of implementation. As an example, during the baseline, only about 9% of schools helped establish reading clubs and involved parents in reading activities. During the endline, the percentages reached more than 55% in partner schools, and about 20% to 30% in comparison schools.

¹⁶ (a) Include school reading policies in their improvement plans.
 (b) Use funds to purchase age-appropriate reading materials (non-text book).
 (c) Upgrade school libraries.
 (d) Establish reading corners.
 (e) Set aside specific reading times during school hours.
 (f) Establish reading clubs.
 (g) Involve parents in reading activities.
 (h) Set up systems for home-based reading.
 (i) Others.

4.4 Correlations between the Quality of Teaching and School Management and Students' EGRA Scores in Sampled Groups

The findings from early grade teacher class observations and school data in this section show that there had been improvements, some of which were quite significant, in the way the early grade teachers were teaching. Improvements were also noted in the school management regarding promoting a reading culture. In general, these improvements are greater in partner schools when compared to the improvements made in comparison schools.

At endline, all the indicators showed positive correlations with the EGRA subtasks. Grade 2 teachers that demonstrate good practices in teaching and assessing reading had a positive impact on students' oral reading fluency and reading comprehension. In Cohort 3, this relationship was the strongest at endline, with correlations of 0.24 and 0.15, respectively. Grade 2 teachers that regularly used reading materials were strongest correlated to students' reading fluency and comprehension in Cohort 3 ($r = 0.30$ and $r = 0.26$, respectively). Schools with a reading culture had the highest correlation, with reading fluency in Cohort 3 ($r = 0.19$) and with reading comprehension in Cohort 1 ($r = 0.13$). Correlations for all EGRA subtasks, demographics, and indicators are presented in **Annex K**.

Given the large number of students sampled in each grade, a hierarchical model for oral reading fluency was applied to examine the existence of a school effect in the data. This analysis revealed the top 1% of schools at endline could contribute an increase of more than +15 cwpm to student reading fluency; while the bottom 1% of schools could decrease student reading fluency by -22 cwpm, on average.

If endline schools are divided into high and low effect schools, then some interesting trends emerge. A high effect school is a school in the top 10% of contribution to student ORF at endline, or contributes a minimum of +8.8 cwpm, on average, to a student's fluency speed. A low effect school is a school in the bottom 10% of contribution, or a school that removes a minimum of -13.0 cwpm, on average, from a student's fluency speed.

High performing schools had more grade 2 teachers that demonstrate good practices in teaching and assessing reading and were generally schools with a reading culture. A total of 71% of top performing schools had grade 2 teachers that demonstrate good practices in teaching and assessing reading, compared to 50% in the lower performing schools. Almost 90% of top performing schools had a schoolwide reading culture, compared to 77% of low performing schools. These differences for each indicator are presented in **Figure 28**. Regarding student demographics, the high performing schools contained higher percentages of students that spoke Bahasa Indonesia at home, had books at home, and attended pre-school. These percentages may be detecting a possible underlying socio-economic status effect and are presented below in **Figure 29**.

Figure 28: School Characteristics of High and Low Performing Schools

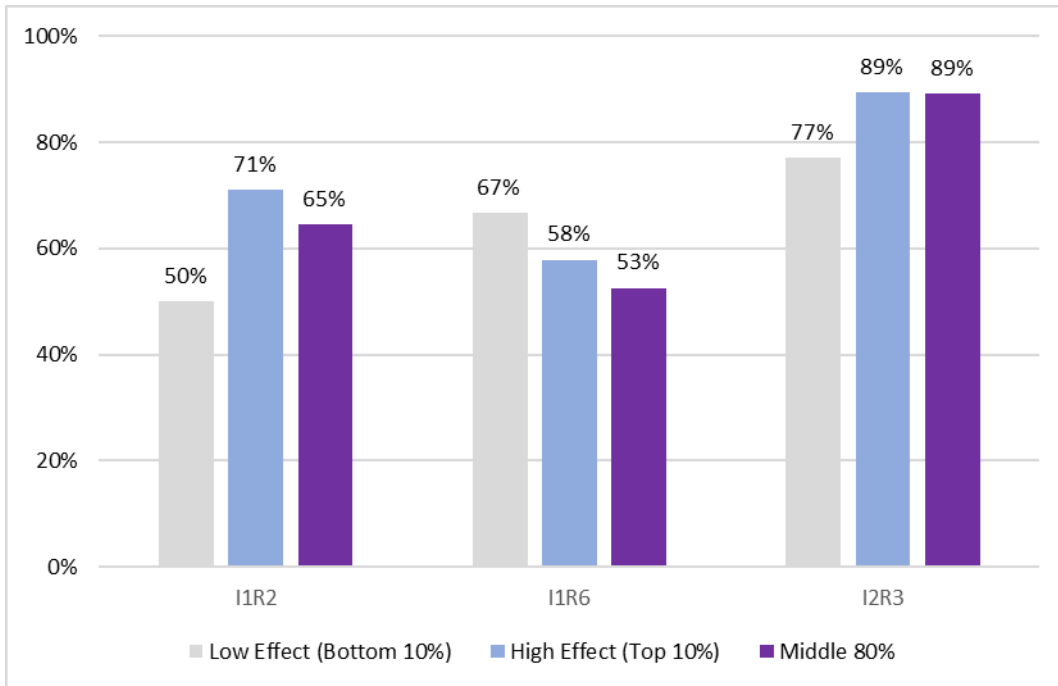
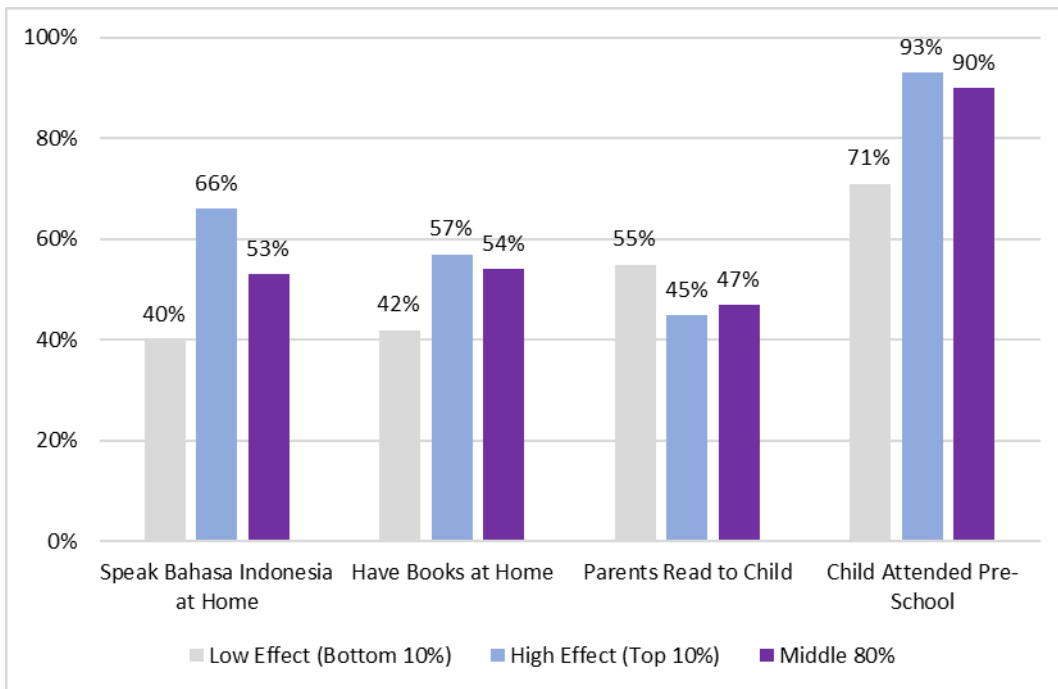


Figure 29: Student Body Characteristics of High and Low Performing Schools



5 Conclusions

5.1 Observations on Improving Student Reading Performance

The Early Grade Reading Assessment (EGRA) was conducted in the seven project partner provinces of Aceh, North Sumatra, Banten, West Java, Central Java, East Java, and South Sulawesi as part of the monitoring and evaluation of USAID PRIORITAS. The results of the project-conducted EGRA revealed that, in the seven project partner provinces, students in the sampled schools at the beginning of grade 3 could decode text—with 67.9% of the sampled students reading fluently with 80% comprehension at the end of the study. Despite this result, Indonesian students still lag behind in international tests, including on the Program for International Student Assessment (PISA). Classroom instruction in reading should go beyond decoding skills, however, and focus on comprehension of complex texts and their intended meaning. Future reading programs should continue to improve students' reading comprehension levels to enable them to compete both nationally and internationally.

Despite the overall good results, the project-conducted EGRA study found that, in general, students in sampled groups in West Java, Central Java, and East Java performed better than students in Aceh, North Sumatra, Banten, and South Sulawesi. It should be noted that the results presented in this report represent only the students in the sampled schools and is not intended to be representative of either the districts, provinces, or the country, because the project partner schools were not randomly selected. Schools and districts were selected based on selection criteria that included district commitment to the project and accessibility to local universities. The national EGRA conducted in 2014 showed greater discrepancies in students' reading ability between western, central, and eastern parts of Indonesia. Future reading programs should consider geographical areas where the needs of students are greater.

At the classroom instruction level, students certainly benefit from explicit and systematic instruction of the five foundational reading skills that include phonological awareness, phonics, fluency, vocabulary, and reading comprehension. These skills should be incorporated into the curriculum. The project has developed some training materials in these areas for early grades that are greatly enjoyed by the teachers in the USAID PRIORITAS project partner schools. The implementation has yielded initial improvements in students' performance, although more time may be needed for the implementation of these skills to have significant impact on students' reading performance. At endline, schools with a reading culture and teachers that promote reading in the classroom were positively correlated with student reading outcomes in the five foundational skills. Future programs could continue to consolidate the materials and further develop materials in higher level reading skills for higher grades.

The importance of pre-school cannot be denied. The EGRA results show that students who attended pre-school outperformed students who did not attend pre-school. Regardless of preschool participation or not, a typical class always has students with varying reading ability. In addition, early diagnostic assessments in reading at each grade level in the early grades are important for teachers to identify students with different needs and respond to these needs in their mode of instruction. The project introduced leveled reading books¹⁷ for use in the early grades to address this issue. These leveled reading books are excellent resources when used appropriately to target specific reading needs in individualized or small group instruction in the classroom or during remedial classes. Meanwhile, publication of more leveled reading books by individuals, foundations, and institutions needs to be encouraged.

¹⁷ These books were developed by the USAID PRIORITAS with partnership with Yayasan Literasi Anak Indonesia. There are 75 titles in six levels that are color-coded.

Lastly, provision of age appropriate and interesting reading books as part of promotion of a good reading habit is just as important as implementation of good pedagogy in reading instruction. Books provide opportunity for students to practice and consolidate their acquired reading skills. Students need plenty of reading practice at school and at home to be fluent readers. There is a positive correlation between fluency and comprehension in early grades. The greater the students' reading fluency, the better they understand what they read.

5.2 Observations for Future Reading Studies

During the implementation of the program, it became difficult to avoid contamination of the comparison group. As teachers were observing the training, comparison schools in nearby districts also wanted to implement the procedures and practices promoted by the USAID PRIORITAS program. Although encouraging, this made detecting the true impact of the USAID PRIORITAS program difficult. For future studies, careful attention should be given to stressing the importance of the comparison schools and the need for them to continue teaching as they normally had been. Perhaps evaluation of future projects needs to end early, to allow for time to provide the comparison schools with materials and training prior to project completion. This may provide motivation for the comparison schools to abstain from finding ways to implement the project interventions.

Another key factor to keep in mind for future impact studies is to verify that the comparison schools and intervention schools are as similar as possible prior to the beginning of the study. For example, if the intervention schools are selected from predominately urban districts, then the comparison schools should also be selected from predominately urban districts. When the comparison and intervention groups are balanced at the beginning of the study and comparison groups abstain from intervention until after all data are collected, the study has the maximum chance of detecting the impact of the intervention. Even if an intervention is successful, when one of these two factors are not met, it becomes difficult to quantify the impact.

Most of the EGRA assessors for this study were student teachers, with some being university lecturers, teachers, and principals. To get an accurate measure of reading ability, it is important that the assessor not make the student feel nervous or uneasy. Given the young age of the students, many factors may influence a student's comfort with an assessor. The project discovered after the administering the baseline instrument to Cohort 1 that most students seemed more at ease with assessors who were university students and female. This may be because the students could relate to these assessors like a sister or an aunt.

The final recommendation for future reading studies would be to carefully examine the instruments and make sure they target the appropriate grade level. The USAID PRIORITAS project sampled students at the beginning of grade 3, as a proxy for student learning at the end of grade 2. In retrospect, the reading passages were found to be relatively easy for the sampled students. Given that teachers were observed in grades 1 and 2 and that the teacher data showed a greater impact of the project intervention, the project may have shown more interesting results had the EGRA been administered to grade 2 students in the final semester of their school year.

Annex A: Assessment Instrument

Early Grade Reading Assessment: Indonesian Language

Penilaian Membaca Kelas Awal (EGRA)
Petunjuk dan Tatacara bagi Pelaksana, Oktober 2016

BAHASA INDONESIA

Petunjuk Umum:

Hal utama yang harus diperhatikan dalam penilaian ini adalah menjalin hubungan yang akrab dan santai dengan siswa-siswa yang akan dinilai, misalnya melalui percakapan sederhana seputar topik yang mereka sukai (lihat contoh di bawah ini). Upayakan agar siswa merasa penilaian ini sebagai kegiatan yang dapat dinikmati, bukan sebagai tugas yang sulit. Penting diingat untuk membacakan **hanya** bagian yang terdapat dalam kotak dengan suara nyaring, pelan, dan jelas.

Selamat pagi/siang. Nama saya (Ibu/Bapak/Kakak) _____ . Saya (Ibu/Bapak/kakak) dari _____, dan saya (Bapak/Ibu/kakak) ke sini untuk bertemu dengan kamu dan berbincang-bincang sedikit.

Siapa namamu? Kamu tinggal dengan siapa di rumah? Rumahnya jauh dari sekolah? [Jika siswa tampak nyaman, lanjutkan ke bagian persetujuan verbal].

Persetujuan Verbal:

- **Saya (Ibu/Bapak/kakak) ke sini untuk melihat bagaimana anak-anak kelas tiga belajar membaca. Kebetulan kamu terpilih.**
- **Kita akan menggunakan alat ini (tunjukkan tablet).**
- **Kamu akan diminta untuk membaca huruf, kata, dan cerita pendek dengan suara nyaring.**
- **Ini bukan ujian, jadi kita santai saja.**
- **Nama kamu tidak ditulis di sini, jadi tidak ada yang tahu kamu menjawab benar atau salah.**
- **Jika kamu tidak menjawab, atau tidak tahu jawabannya, juga tidak apa-apa.**
- **Apakah kamu bersedia?**

Tandai kotak jika telah mendapatkan persetujuan verbal:

Jika tidak didapatkan persetujuan verbal, ucapkan terima kasih pada anak dan lanjutkan dengan anak berikutnya, menggunakan lembar yang sama.

Jika sudah mendapatkan persetujuan verbal, lengkapi informasi di bawah ini.

Informasi Siswa

1. Masuk sekolah?	<input type="checkbox"/> 0 = Pagi <input type="checkbox"/> 1 = Siang <input type="checkbox"/> 2 = Sepanjang hari
2. Kelas siswa?	<input type="checkbox"/> 0 = Dua <input type="checkbox"/> 1 = Tiga <input type="checkbox"/> 2 = Empat
3. Apakah kamu belajar bersama kelas lain seperti kelas 1, kelas 2 atau kelas 4 dalam ruang kelas yang sama?	<input type="checkbox"/> 1 = Ya <input type="checkbox"/> 0 = Tidak
4. Usia Siswa:	<input type="checkbox"/> 0 = Tujuh <input type="checkbox"/> 1 = Delapan <input type="checkbox"/> 2 = Sembilan <input type="checkbox"/> 3 = Lebih dari sembilan
5. Jenis kelamin siswa:	<input type="checkbox"/> 0 = Laki-laki <input type="checkbox"/> 1 = Perempuan
6. Bahasa apa yang paling sering kamu gunakan di rumah?	<input type="checkbox"/> 1 = Bahasa Indonesia <input type="checkbox"/> 2 = Bahasa yang lain
7. Apakah ada bacaan seperti buku cerita atau majalah di rumah ?	<input type="checkbox"/> 1 = Ya <input type="checkbox"/> 0 = Tidak
8. Apakah di rumah kamu membaca buku bersama-sama dengan orang lain? (Kalau jawabannya ya), dengan siapa?	<input type="checkbox"/> 1 = Ya <input type="checkbox"/> 0 = Tidak
9. Sebelum masuk ke SD/MI, apakah kamu pernah masuk TK atau PAUD ?	<input type="checkbox"/> 1 = Ya <input type="checkbox"/> 0 = Tidak

Bagian I: Mengenal Huruf

Perlihatkan lembar huruf-huruf berikut ini. Katakan:

Di lembar ini terdapat huruf-huruf dalam bahasa Indonesia. Sebutkan nama huruf-huruf ini sebanyak-banyaknya.

Contoh: Nama huruf ini [tunjuk huruf M] adalah “M” (baca: “em”).

Mari kita coba: sebutkan nama huruf ini [tunjuk huruf A]:

Jika siswa membaca dengan benar, katakan: Bagus, nama huruf ini adalah “A”.

Jika siswa tidak membaca dengan benar, katakan: Nama huruf ini adalah “A”.

Sekarang coba yang lainnya: Sebutkan nama huruf ini [tunjuk huruf i].

Jika siswa membaca dengan benar, katakan: Bagus, nama huruf ini adalah “i”.

Jika siswa tidak membaca dengan benar, katakan: Nama huruf ini adalah “i”.

Jika saya katakan mulai, sebutkan nama huruf-huruf ini dengan cepat dan benar, dari sini ke sini. [Tunjuk huruf pertama pada baris pertama dan seterusnya hingga huruf kesepuluh pada baris pertama] dan lanjutkan ke baris berikut hingga akhir. Jika kamu tidak tahu nama hurufnya, lanjutkan dengan nama huruf berikutnya. Saya akan tetap diam dan mendengarmu. Siap? Mari kita mulai!



Tekan tombol ‘Start’. Setelah semua huruf muncul di layar, katakan pada siswa “Silakan mulai.”

Ikuti huruf yang disebutkan oleh siswa pada layar. Tekan/tandai huruf yang dibaca salah. Huruf tersebut akan berubah warna menjadi biru. Jawaban yang dikoreksi siswa dan koreksiannya benar dianggap benar dan diperbaiki dengan menekan kembali huruf yang telah disalahkan. Sekarang hurufnya akan berubah menjadi abu-abu.

Tetaplah diam, kecuali jika siswa ragu atau diam selama 3 detik, tunjuk huruf berikut dan katakan “Silahkan lanjutkan”. Huruf yang terlewat ditandai salah.

Jika siswa menyebutkan bunyi hurufnya dan bukan nama hurufnya, katakan “Coba sebutkan NAMA huruf ini”. Bantuan seperti ini hanya dapat diberikan **satu kali** dalam subtugas ini.

Jika waktunya habis sebelum siswa selesai membaca, layar akan berubah menjadi merah dan pengatur waktunya (Timer) akan berhenti. Minta siswa untuk berhenti membaca. tekan huruf terakhir yang dibaca, tanda kurung tutup berwarna akan muncul pada huruf yang ditandai. Untuk melanjutkan, tekan tombol "Next".

Jika siswa selesai membaca sebelum layarnya berubah menjadi merah, hentikan pengatur waktunya seketika siswa selesai menyebutkan huruf terakhir. Kurung tutup berwarna merah akan muncul di huruf terakhir. Tekan tombol “Next” untuk melanjutkan.

Aturan berhenti lebih awal: Jika semua huruf pada baris pertama salah, layar akan berubah warna jadi merah. Katakan “terima kasih’ kepada siswa, hentikan subtugas ini dan lanjutkan ke subtugas berikutnya.

Contoh: M A i

	1	2	3	4	5	6	7	8	9	10	
t	m	U	G	b	A	i	S	n	E		(10)
r	e	u	j	D	s	E	P	i	A		(20)
N	V	E	Y	i	W	c	a	d	U		(30)
i	N	h	S	V	M	J	t	k	n		(40)
u	F	N	L	e	K	p	T	s	a		(50)
b	T	a	H	O	u	C	L	e	f		(60)
N	P	u	g	n	k	d	A	R	C		(70)
S	r	H	A	k	n	i	M	U	L		(80)
r	A	D	O	Y	R	U	i	Z	A		(90)
m	K	a	B	t	e	g	N	a	d		(100)

Bagian 2. Membaca Kata

Perlihatkan lembar kata pada anak. Katakan:

Berikut ini adalah daftar kata. Bacalah kata-kata ini sebanyak mungkin dengan teliti, jangan dieja. Contoh, kata ini adalah: “kuda”.

Mari kita coba: Bacalah kata berikut [tunjuk kata “sakit”]:

*Jika siswa membaca dengan benar, katakan: **Bagus, kata ini adalah “sakit”.***

*Jika siswa tidak membaca dengan benar, katakan: **Kata ini adalah “sakit”.***

Sekarang coba yang lainnya: Bacalah kata berikut [tunjuk kata “makan”]:

*Jika siswa membaca dengan benar, katakan: **Bagus, kata ini adalah “makan”.***

*Jika siswa tidak membaca dengan benar, katakan: **Kata ini adalah “makan”.***

Ketika saya katakan mulai, bacalah kata-kata ini secepatnya mulai dari baris pertama dari kiri ke kanan, lalu baris berikutnya dari kiri ke kanan dan seterusnya. Saya akan tetap diam dan mendengarmu. Apakah kamu siap? Apakah sudah siap? Mari kita mulai!



Tekan tombol ‘Start’. Setelah semua kata muncul di layar, katakan pada siswa “Silakan mulai.”

Ikuti kata yang dibaca oleh siswa pada layar. Tekan kata yang dibaca salah. Kata tersebut akan berubah warna menjadi biru. Jawaban yang dikoreksi siswa dan koreksinya benar maka dianggap benar dan diperbaiki dengan

menekan kembali kata yang telah disalahkan. Sekarang katanya akan berubah menjadi abu-abu.

Tetaplah diam, kecuali jika siswa ragu atau terhenti selama 3 detik, tunjuk kata berikut dan katakan “Silahkan lanjutkan”. Kata yang terlewat di tandai salah..

Jika waktunya habis sebelum siswa selesai membaca, layar akan berubah menjadi merah dan pengatur waktunya (Timer) akan berhenti. Minta siswa untuk berhenti membaca. tekan kata terakhir yang dibaca, tanda kurung tutup berwarna akan muncul pada kata yang ditandai. Untuk melanjutkan, tekan tombol "Next".

Jika siswa selesai membaca sebelum layarnya berubah menjadi merah, hentikan pengatur waktunya seketika siswa selesai menyebutkan kata terakhir. Kurung tutup berwarna merah akan muncul di kata terakhir. Tekan tombol “Next” untuk melanjutkan.

Aturan berhenti lebih awal Jika siswa tidak menyebutkan satupun kata pada baris pertama dengan benar, layar akan berubah warna jadi merah. Katakan “terima kasih” kepada siswa, hentikan subtugas ini dan lanjutkan ke subtugas berikutnya.

Contoh: kuda sakit makan

1	2	3	4	5	
bulan	dengan	terima	rumah	rajin	(5)
harus	suka	bisa	anak	hidup	(10)
teman	ayam	kita	kasih	sekali	(15)
pagi	agar	desa	ayah	hujan	(20)
masuk	besar	tidur	hanya	ada	(25)
tiba	sehat	hutan	selalu	akan	(30)
orang	jika	kamu	merah	tidak	(35)
emas	ingin	pulang	telah	putih	(40)
baru	hari	karena	bunga	kelas	(45)
senang	kebun	juga	sakit	ikan	(50)

Bagian 3. Membaca Kata yang Tidak Mempunyai Arti

Perlihatkan lembar kata-kata pada anak. Katakan:

Berikut ini adalah beberapa kata-kata yang tidak ada artinya. Bacalah sebanyak mungkin dengan benar. Jangan mengeja, tolong dibaca seperti yang tertulis. Contoh, kata ini adalah: “kadi”.

Mari kita coba: Bacalah kata berikut ini [tunjuk kata “ehit”]:

[jika siswa membaca dengan benar, katakan]: **“Bagus sekali: “ehit”.**

[jika anak tidak membaca dengan benar, katakan]: **Kata ini dibaca “ehit.”**

Sekarang coba yang lainnya: Bacalah kata berikut ini [tunjuk kata berikutnya “mab”].

[jika anak membaca dengan benar, katakan]: **Bagus sekali: “mab”.**

[jika anak tidak membaca dengan benar, katakan]: **Kata ini dibaca “mab”.**

Ketika saya katakan mulai, bacalah kata-kata ini secepatnya mulai dari baris pertama, dari kiri ke kanan, dan lanjutkan ke baris berikutnya. Saya akan tetap diam dan mendengarmu. Apakah kamu siap? Mari kita mulai!



⌚ Tekan tombol 'Start'. Setelah semua kata muncul di layar, katakan pada siswa "Silakan mulai."

Ikuti kata yang dibaca oleh siswa pada layar. Tekan kata yang dibaca salah. Kata tersebut akan berubah warna menjadi biru. Jawaban yang dikoreksi siswa dan koreksiannya benar maka dianggap benar dan diperbaiki dengan

menekan kembali kata yang telah disalahkan. Sekarang katanya akan berubah menjadi abu-abu.

Tetaplah diam, kecuali jika siswa ragu atau terhenti selama 3 detik, tunjuk kata berikut dan katakan "Silahkan lanjutkan". Kata yang terlewat ditandai salah..

Jika waktunya habis sebelum siswa selesai membaca, layar akan berubah menjadi merah dan pengatur waktunya

(Timer) akan berhenti. Minta siswa untuk berhenti membaca. tekan kata terakhir yang dibaca, tanda kurung tutup

berwarna akan muncul pada kata yang ditandai. Untuk melanjutkan, tekan tombol "Next".

Jika siswa selesai membaca sebelum layarnya berubah menjadi merah, hentikan pengatur waktunya seketika siswa selesai menyebutkan kata terakhir. Kurung tutup berwarna merah akan muncul di kata terakhir. Tekan tombol "Next" untuk melanjutkan.

Aturan berhenti lebih awal Jika siswa tidak menyebutkan satupun kata pada baris pertama dengan benar, layar akan berubah warna jadi merah. Katakan "terima kasih" kepada siswa, hentikan subtugas ini dan lanjutkan ke subtugas berikutnya.

Contoh: kadi ehit mab

1	2	3	4	5	
lukad	ganu	sakel	tasang	asib	(5)
sabi	tohi	tecap	numo	urgu	(10)
hetal	lauka	irad	akum	madal	(15)
kaketi	ipat	tagi	mahur	malad	(20)
iar	tukun	duhas	taka	rehu	(25)
nukut	umak	abija	halada	tiu	(30)
naki	weba	wijab	lusela	sema	(35)
satang	napum	ulal	tadap	nabol	(40)
halet	riha	saib	kidat	kaluh	(45)
atak	osed	kareme	tipa	manum	(50)

Bagian 4a: Kelancaran Membaca Nyaring

Perlihatkan bacaan berikut pada anak. Katakan:

Ini adalah sebuah cerita pendek. Tolong dibaca dengan suara nyaring, cepat dan teliti. Ketika kamu selesai, saya akan bertanya mengenai apa yang sudah kamu baca. Ketika saya katakan mulai, bacalah cerita ini sebaik-baiknya. Saya akan tetap diam dan mendengarmu. Apakah kamu siap? Mari kita mulai!



Minta siswa untuk memulai setelah menekan tombol “Start”

- Ikuti kata yang dibaca pada Tablet dan tandai kata-kata yang salah.
- Koreksi diri/pengulangan yang benar dari siswa dianggap benar.
- **Tetap diam.** Jika siswa terlihat ragu selama 3 detik, tunjuk kata berikutnya dan katakan **“Silahkan lanjutkan.”** Tandai salah pada kata yang terlewati.

Setelah 60 detik berlalu, katakan “Stop.” Tandai kata terakhir yang dibaca dengan menekan kata tersebut.

Berhenti: Jika siswa tidak membaca dengan benar satu kata pun pada baris pertama, katakan **“Terima Kasih!”** hentikan kegiatan ini, lanjutkan kegiatan berikutnya.

			Benar	Salah	Tidak ada jawaban
Tini mempunyai seekor kucing	4	Hewan apa yang dimiliki Tini? (kucing)			
Tini sangat menyayangi kucingnya. Dia selalu mengajaknya bermain.	12	Apa yang selalu dilakukan Tini bersama kucingnya? (bermain)			
Suatu pagi kucing itu mengeong terus. Tini memeriksanya dengan hati-hati. Tini sangat terkejut karena ada luka di kaki kucingnya. Dani memeriksanya dengan hati-hati. Dani sangat terkejut karena ada luka di kaki kucingnya.	31	Mengapa kucing mengeong terus? (sakit/kucingnya sakit/ada luka di kakinya/kakinya berdarah)			
Tini bersedih, lalu memberitahu ibunya. Ayah Tini segera mengobatinya.	40	Siapa yang mengobati kucing Tini? (ayah/bapak Tini/sinonim ‘ayah’)			
Ayah Tini seorang dokter hewan. Kucing Tini sekarang lincah dan dapat bermain lagi. Sekarang Tini kembali riang.	57	Mengapa Tini kembali riang? (kucingnya sembuh/kucingnya tidak sakit lagi/ kucingnya bisa bermain kembali/diobati ibunya/jawaban lain yang dapat disimpulkan dari bacaan)			

Bagian 4b: Pemahaman Bacaan

Ketika waktu 60 detik telah habis atau apabila siswa dapat menyelesaikan bahan bacaan kurang dari 60 detik, ambil cerita tersebut dari anak, dan ajukan pertanyaan di bawah ini.

Berikan waktu maksimal **15 detik** pada anak untuk menjawab setiap pertanyaan. Tandai jawaban anak, dan lanjutan pada pertanyaan berikutnya.

Sekarang saya akan memberikan beberapa pertanyaan tentang cerita yang baru saja kamu baca. Cobalah menjawab pertanyaannya sebaik-baiknya.

Ajukan pertanyaan yang berkaitan dengan kata-kata yang dibaca anak.

Bagian 5: Menyimak

Ini bukan kegiatan yang dihitung waktunya dan tidak ada lembar bacaan siswa. Bacalah dengan nyaring cerita di bawah ini hanya **satu kali** secara perlahan, kira-kira 1 kata per detik. Katakan:

Saya akan membacakan sebuah cerita lalu memberikan beberapa pertanyaan padamu.

Dengarkan baik-baik dan jawablah pertanyaannya. Siap? Mari mulai.

Bacakanlah cerita berikut ini:

Banu berjalan kaki ke sekolah. Dia harus berangkat pagi-pagi karena sekolahnya jauh. Banu membutuhkan sepeda. Dia menabung untuk membeli sepeda. Sekarang Banu ke sekolah bersama teman-temannya naik sepeda.

Berikan waktu **maksimal 15 detik** pada siswa untuk menjawab pertanyaannya. Tandai jawaban anak, dan lanjutkan pada pertanyaan berikutnya.

Tanyakanlah pertanyaan-pertanyaan berikut ini:

Pertanyaan	Jawaban	Tanggapan		
		Benar	Salah	Tidak ada jawaban
Ke mana Lina berjalan kaki?	Ke sekolah			
Untuk apa Lina menabung?	Sepeda/beli sepeda/untuk membeli sepeda			
Mengapa Lina membutuhkan sepeda?	Karena tidak mau berangkat pagi-pagi/tidak mau bangun pagi/mau berangkat bersama teman-temannya/teman-temannya punya sepeda/sekolahnya jauh/mau hemat waktu/lebih cepat naik sepeda/jawaban lain yang dapat disimpulkan dari bacaan.			

Annex B: Early Grade Reading Assessment Schools

*Type: SD = Sekolah Dasar/Secular Primary School
MI = Madrasah Ibtidayah/Islamic Primary School

No.	Province	District	Sampled Group	School Name	Type*	Status
1	Aceh	Aceh Barat Daya	Comparison	MIN Kp Rawa	MI	Public
2	Aceh	Aceh Barat Daya	Comparison	SDN 1 Manggeng	SD	Public
3	Aceh	Aceh Barat Daya	Comparison	SDN 10 Susoh	SD	Public
4	Aceh	Aceh Barat Daya	Comparison	SDN 2 Manggeng	SD	Public
5	Aceh	Aceh Barat Daya	Partner	MIN Paoh Padang	MI	Public
6	Aceh	Aceh Barat Daya	Partner	SDN 2 Lembah Sabil	SD	Public
7	Aceh	Aceh Barat Daya	Partner	SDN 4 Lembah Sabil	SD	Public
8	Aceh	Aceh Barat Daya	Partner	SDN 4 Susoh	SD	Public
9	Aceh	Aceh Jaya	Comparison	MIN Kampung Baro	MI	Public
10	Aceh	Aceh Jaya	Comparison	SDN 2 Krueng Sabe	SD	Public
11	Aceh	Aceh Jaya	Comparison	SDN 3 Teunom	SD	Public
12	Aceh	Aceh Jaya	Partner	MIN Dayah Baro	MI	Public
13	Aceh	Aceh Jaya	Partner	MIN Teunom	MI	Public
14	Aceh	Aceh Jaya	Partner	SDN 2 Calang	SD	Public
15	Aceh	Aceh Jaya	Partner	SDN 2 Teunom	SD	Public
16	Aceh	Aceh Tamiang	Comparison	MIN Simpang Upah	MI	Public
17	Aceh	Aceh Tamiang	Comparison	SDN 1 Kuala Simpang	SD	Public
18	Aceh	Aceh Tamiang	Comparison	SDN 1 Rantau Pauh	SD	Public
19	Aceh	Aceh Tamiang	Comparison	SDN Muka Sungai Kuruk	SD	Public
20	Aceh	Aceh Tamiang	Partner	MIN Kampung Durian	MI	Public
21	Aceh	Aceh Tamiang	Partner	SDN 1 Bukit Tempurung	SD	Public
22	Aceh	Aceh Tamiang	Partner	SDN Seruway	SD	Public
23	Aceh	Aceh Tamiang	Partner	SDN Tanah Merah	SD	Public
24	Aceh	Aceh Utara	Comparison	MIN Sampoiniet	MI	Public
25	Aceh	Aceh Utara	Comparison	SDN 1 Baktiya	SD	Public
26	Aceh	Aceh Utara	Comparison	SDN 5 Baktiya	SD	Public
27	Aceh	Aceh Utara	Comparison	SDN 3 Baktiya	SD	Public
28	Aceh	Aceh Utara	Partner	MIN Pantonlabu	MI	Public
29	Aceh	Aceh Utara	Partner	SDN 1 Tanah Jambo Aye	SD	Public
30	Aceh	Aceh Utara	Partner	SDN 10 Seunuddon	SD	Public
31	Aceh	Aceh Utara	Partner	SDN 5 Seunuddon	SD	Public
32	Aceh	Bener Meriah	Comparison	MIN Janarata	MI	Public
33	Aceh	Bener Meriah	Comparison	SDN Bahgie Bertona	SD	Public
34	Aceh	Bener Meriah	Comparison	SDN Blok C	SD	Public
35	Aceh	Bener Meriah	Comparison	SDN Karang Jadi	SD	Public
36	Aceh	Bener Meriah	Partner	MIN Lawe Jadi	MI	Public
37	Aceh	Bener Meriah	Partner	MIN Sukadamai	MI	Public
38	Aceh	Bener Meriah	Partner	SDN Pondok Gajah	SD	Public
39	Aceh	Bener Meriah	Partner	SDN2 Lampahan	SD	Public

No.	Province	District	Sampled Group	School Name	Type*	Status
40	Aceh	Pidie Jaya	Comparison	MIN Kuta Rentang	MI	Public
41	Aceh	Pidie Jaya	Comparison	SDN 1 Ulim	SD	Public
42	Aceh	Pidie Jaya	Comparison	SDN Antara	SD	Public
43	Aceh	Pidie Jaya	Comparison	SDN Kuta Bate	SD	Public
44	Aceh	Pidie Jaya	Partner	MIN Jeulanga	MI	Public
45	Aceh	Pidie Jaya	Partner	SDN 5 Meureudu	SD	Public
46	Aceh	Pidie Jaya	Partner	SDN Rhieng	SD	Public
47	Aceh	Pidie Jaya	Partner	SDN Teupin Pukat	SD	Public
48	Banten	Pandeglang	Comparison	MI Ma Langensari Saketi	MI	Private
49	Banten	Pandeglang	Comparison	SDN Kaduhejo Pulosari	SD	Public
50	Banten	Pandeglang	Comparison	SDN Koranji 1 Pulosari	SD	Public
51	Banten	Pandeglang	Comparison	SDN Talagasari 2 Saketi	SD	Public
52	Banten	Pandeglang	Partner	MI Ma Dahu Mekar Sari Bojong	MI	Private
53	Banten	Pandeglang	Partner	SDN Bojong 4	SD	Public
54	Banten	Pandeglang	Partner	SDN Gunungsari 2 Mandalawangi	SD	Public
55	Banten	Pandeglang	Partner	SDN Gunungsari 1 Mandalawangi	SD	Public
56	Banten	Serang	Comparison	MI Jamiyatul Husbu'lyah Baros	MI	Private
57	Banten	Serang	Comparison	SDN Pontang 2	SD	Public
58	Banten	Serang	Comparison	SDN Singarajan Pontang	SD	Public
59	Banten	Serang	Comparison	SDN Sukacai 2 Baros	SD	Public
60	Banten	Serang	Partner	MI Nurul Falah Kubang	MI	Private
61	Banten	Serang	Partner	SDN Cilengsir Petir	SD	Public
62	Banten	Serang	Partner	SDN Ciruas 2	SD	Public
63	Banten	Serang	Partner	SDN Kadikaran	SD	Public
64	Banten	Tangerang	Comparison	MI Al Ittihad Daru	MI	Private
65	Banten	Tangerang	Comparison	MI Darussalam	MI	Private
66	Banten	Tangerang	Comparison	SDN Panongan 3	SD	Public
67	Banten	Tangerang	Comparison	SDN Rancabuaya 1	SD	Public
68	Banten	Tangerang	Partner	MI Al Husein	MI	Private
69	Banten	Tangerang	Partner	MI Syech Mubarak	MI	Private
70	Banten	Tangerang	Partner	SDN Campaka 3	SD	Public
71	Banten	Tangerang	Partner	SDN Sodong 1	SD	Public
72	Banten	Tangerang Selatan	Comparison	MI Miftah Sa'Adah	MI	Private
73	Banten	Tangerang Selatan	Comparison	MI Nurul Falah Pondok Ranji	MI	Private
74	Banten	Tangerang Selatan	Comparison	SDN Cireundeu 2	SD	Public
75	Banten	Tangerang Selatan	Comparison	SDN Pucung 2	SD	Public
76	Banten	Tangerang Selatan	Partner	MI l'Anatul Huda	MI	Private
77	Banten	Tangerang Selatan	Partner	SDN Jelupang 1	SD	Public
78	Banten	Tangerang Selatan	Partner	SDN Kademangan 1	SD	Public
79	Banten	Tangerang Selatan	Partner	Sds Al Amanah	SD	Private
80	West Java	Bandung Barat	Comparison	Mis Cisasawi	MI	Private
81	West Java	Bandung Barat	Comparison	Sd Kartika X-3	SD	Private
82	West Java	Bandung Barat	Comparison	SDN Cicangkang Girang	SD	Public

No.	Province	District	Sampled Group	School Name	Type*	Status
83	West Java	Bandung Barat	Comparison	SDN Sukamanah	SD	Public
84	West Java	Bandung Barat	Partner	MI Syamsudin	MI	Private
85	West Java	Bandung Barat	Partner	SDN Maroko	SD	Public
86	West Java	Bandung Barat	Partner	SDN Mekarasih	SD	Public
87	West Java	Bandung Barat	Partner	SDN2 Rajamandala	SD	Public
88	West Java	Bekasi	Comparison	Mis Nurul Yaqin	MI	Private
89	West Java	Bekasi	Comparison	SDN 1 Sertajaya	SD	Public
90	West Java	Bekasi	Comparison	SDN 1 Simpangan	SD	Public
91	West Java	Bekasi	Comparison	SDN 2 Sertajaya	SD	Public
92	West Java	Bekasi	Partner	MI At Taqwa	MI	Private
93	West Java	Bekasi	Partner	SDN 1 Jayamukti	SD	Public
94	West Java	Bekasi	Partner	SDN 2 Hegarmukti	SD	Public
95	West Java	Bekasi	Partner	SDN 6 Sukaesmi	SD	Public
96	West Java	Ciamis	Comparison	Mis Sumber Jaya	MI	Private
97	West Java	Ciamis	Comparison	SDN1 Pamarican	SD	Public
98	West Java	Ciamis	Comparison	SDN2 Pamokolan	SD	Public
99	West Java	Ciamis	Comparison	SDN5 Kertahayu	SD	Public
100	West Java	Ciamis	Partner	Mis Gunungcupu	MI	Private
101	West Java	Ciamis	Partner	SDN 1 Sindangsari	SD	Public
102	West Java	Ciamis	Partner	SDN 2 Sukasari	SD	Public
103	West Java	Ciamis	Partner	SDN 3 Sukamanah	SD	Public
104	West Java	Cimahi	Comparison	Mis Sadarmanah	MI	Private
105	West Java	Cimahi	Comparison	SDN Harapan 2	SD	Public
106	West Java	Cimahi	Comparison	SDN Karang Mekar Mandiri 2	SD	Public
107	West Java	Cimahi	Comparison	SDN Setiamanah Mandiri 1	SD	Public
108	West Java	Cimahi	Partner	Mis Asih Putra	MI	Private
109	West Java	Cimahi	Partner	SDN Cibabat Mandiri 2	SD	Public
110	West Java	Cimahi	Partner	SDN Sosial 1	SD	Public
111	West Java	Cimahi	Partner	SDN Utama Mandiri 1	SD	Public
112	West Java	Cirebon	Comparison	MI Alwahdah	MI	Private
113	West Java	Cirebon	Comparison	SDN 2 Pegagan	SD	Public
114	West Java	Cirebon	Comparison	SDN 2 Setu Wetan	SD	Public
115	West Java	Cirebon	Comparison	SDN 3 Setu Wetan	SD	Public
116	West Java	Cirebon	Partner	MIN Sindangmekar	MI	Public
117	West Java	Cirebon	Partner	SDN 1 Cangkoak	SD	Public
118	West Java	Cirebon	Partner	SDN 1 Panembahan	SD	Public
119	West Java	Cirebon	Partner	SDN 2 Panembahan	SD	Public
120	West Java	Kuningan	Comparison	MI Manbaul Ulum	MI	Private
121	West Java	Kuningan	Comparison	SDN 1 Kertayasa	SD	Public
122	West Java	Kuningan	Comparison	SDN Jambugeulis	SD	Public
123	West Java	Kuningan	Comparison	SDN Tirtawangunan	SD	Public
124	West Java	Kuningan	Partner	MIN Maniskidul	MI	Public
125	West Java	Kuningan	Partner	SDN 1 Cilimus	SD	Public

No.	Province	District	Sampled Group	School Name	Type*	Status
126	West Java	Kuningan	Partner	SDN 1 Purwasari	SD	Public
127	West Java	Kuningan	Partner	SDN 3 Lengkong	SD	Public
128	West Java	Tasikmalaya	Comparison	Mis Nurul Ikhsan	MI	Private
129	West Java	Tasikmalaya	Comparison	SDN 1 Dirgahayu	SD	Public
130	West Java	Tasikmalaya	Comparison	SDN 1 Kadipaten	SD	Public
131	West Java	Tasikmalaya	Comparison	SDN Salebu	SD	Public
132	West Java	Tasikmalaya	Partner	MI Cicarulang	MI	Private
133	West Java	Tasikmalaya	Partner	SDN 3 Pakemitan	SD	Public
134	West Java	Tasikmalaya	Partner	SDN Bugel Alis	SD	Public
135	West Java	Tasikmalaya	Partner	SDN Citatah	SD	Public
136	Central Java	Banjarnegara	Comparison	MIN Mandukara	MI	Public
137	Central Java	Banjarnegara	Comparison	SDN1 Kendaga Banjarmangu	SD	Public
138	Central Java	Banjarnegara	Comparison	SDN1 Kutayasa Mandukara	SD	Public
139	Central Java	Banjarnegara	Comparison	SDN1 Sigaluh	SD	Public
140	Central Java	Banjarnegara	Partner	MI Al Ma'Arif 1 Kertayasa	MI	Private
141	Central Java	Banjarnegara	Partner	SDN 1 Kertayasa	SD	Public
142	Central Java	Banjarnegara	Partner	SDN1 Kutabanjar	SD	Public
143	Central Java	Banjarnegara	Partner	SDN3 Kutabanjar	SD	Public
144	Central Java	Batang	Comparison	MI Rifaiyah Limpung	MI	Private
145	Central Java	Batang	Comparison	SDN Kaliboyo	SD	Public
146	Central Java	Batang	Comparison	SDN Limpung 1	SD	Public
147	Central Java	Batang	Comparison	SDN Tulis 2	SD	Public
148	Central Java	Batang	Partner	MI Islamiyah Sojomerto	MI	Private
149	Central Java	Batang	Partner	SDN Karangsem 12	SD	Public
150	Central Java	Batang	Partner	SDN Karangsem 7	SD	Public
151	Central Java	Batang	Partner	SDN Sojomerto 1	SD	Public
152	Central Java	Pekalongan	Comparison	MI Salafiyah Tanjung	MI	Private
153	Central Java	Pekalongan	Comparison	Sd Muhammadiyah 3 Pekajangan	SD	Private
154	Central Java	Pekalongan	Comparison	SDN 02 Pakis	SD	Public
155	Central Java	Pekalongan	Comparison	SDN 03 Kedungwuni	SD	Public
156	Central Java	Pekalongan	Partner	MI Salafiyah Warulor	MI	Private
157	Central Java	Pekalongan	Partner	Sd Muhammadiyah Kajen	SD	Private
158	Central Java	Pekalongan	Partner	SDN 01 Kampil	SD	Public
159	Central Java	Pekalongan	Partner	SDN Pekiringanalit 3	SD	Public
160	Central Java	Purbalingga	Comparison	MI Muhammadiyah Gumiwang	MI	Private
161	Central Java	Purbalingga	Comparison	SDN Prigi	SD	Public
162	Central Java	Purbalingga	Comparison	SDN1 Kejobong	SD	Public
163	Central Java	Purbalingga	Comparison	SDN1 Padamara	SD	Public
164	Central Java	Purbalingga	Partner	MI Muhammadiyah Toyareka	MI	Private
165	Central Java	Purbalingga	Partner	SDN Bakulan	SD	Public
166	Central Java	Purbalingga	Partner	SDN1 Cipaku	SD	Public
167	Central Java	Purbalingga	Partner	SDN1 Mangkunegara	SD	Public
168	Central Java	Semarang	Comparison	MI Darul Hikmah Cukilan 1	MI	Private

No.	Province	District	Sampled Group	School Name	Type*	Status
169	Central Java	Semarang	Comparison	SDN Bandungan	SD	Public
170	Central Java	Semarang	Comparison	SDN Kenteng 1	SD	Public
171	Central Java	Semarang	Comparison	SDN3 Tuntang	SD	Public
172	Central Java	Semarang	Partner	MI Klero	MI	Private
173	Central Java	Semarang	Partner	SDN1 Jubelan	SD	Public
174	Central Java	Semarang	Partner	SDN1 Tengaran	SD	Public
175	Central Java	Semarang	Partner	SDN2 Sumowono	SD	Public
176	Central Java	Sragen	Comparison	Mim Pilang	MI	Private
177	Central Java	Sragen	Comparison	SDN Patihan 2	SD	Public
178	Central Java	Sragen	Comparison	SDN Purwosuman 1	SD	Public
179	Central Java	Sragen	Partner	MI Muhammadiyah Karangangyar	MI	Private
180	Central Java	Sragen	Partner	SDN Gringging 3	SD	Public
181	Central Java	Sragen	Partner	SDN Karangtengah 3	SD	Public
182	Central Java	Sragen	Partner	SDN Tangkil 3	SD	Public
183	Central Java	Wonosobo	Comparison	MI Ma'Arif Kliwonan	MI	Private
184	Central Java	Wonosobo	Comparison	SDN 1 Kalibeber	SD	Public
185	Central Java	Wonosobo	Comparison	SDN 1 Kalikajar	SD	Public
186	Central Java	Wonosobo	Comparison	SDN 1 Kejajar	SD	Public
187	Central Java	Wonosobo	Partner	MI Muhammadiyah Kertek	MI	Private
188	Central Java	Wonosobo	Partner	SDN 1 Bojasari	SD	Public
189	Central Java	Wonosobo	Partner	SDN 2 Jengkol	SD	Public
190	Central Java	Wonosobo	Partner	SDN Siwuran	SD	Public
191	East Java	Banyuwangi	Partner	MI Islamiyah Rogojampi	MI	Private
192	East Java	Banyuwangi	Partner	Sd Al Irsyad	SD	Private
193	East Java	Banyuwangi	Partner	SDN 1 Rogojampi	SD	Public
194	East Java	Banyuwangi	Partner	SDN 4 Singotrunan	SD	Public
195	East Java	Blitar	Comparison	MI Jouharotut Tholibin	MI	Private
196	East Java	Blitar	Comparison	SDN Bagelanan 03	SD	Public
197	East Java	Blitar	Comparison	SDN Bagelanan 02	SD	Public
198	East Java	Blitar	Comparison	SDN Tuliskriyo 02	SD	Public
199	East Java	Blitar	Partner	MI Mitahul Huda Kd.Bunder	MI	Private
200	East Java	Blitar	Partner	SDN Kalipang 03	SD	Public
201	East Java	Blitar	Partner	SDN Kebonduren 01	SD	Public
202	East Java	Blitar	Partner	SDN Kebonduren 03	SD	Public
203	East Java	Jombang	Partner	MI Islamiyah Al Wathoniyah Mojoanyar	MI	Private
204	East Java	Jombang	Partner	SDN Bareng 3	SD	Public
205	East Java	Jombang	Partner	SDN Ceweng	SD	Public
206	East Java	Jombang	Partner	SDN Grogol 2	SD	Public
207	East Java	Kota Batu	Partner	MI Thoriqul Huda	MI	Private
208	East Java	Kota Batu	Partner	Sd Immanuel	SD	Private
209	East Java	Kota Batu	Partner	SDN Oro Oro Ombo 2	SD	Public
210	East Java	Kota Batu	Partner	SDN Tulungrejo 4	SD	Public
211	East Java	Lamongan	Partner	MI Unggulan Sabilillah (Mius)	MI	Private

No.	Province	District	Sampled Group	School Name	Type*	Status
212	East Java	Lamongan	Partner	SDN Made 4	SD	Public
213	East Java	Lamongan	Partner	SDN Sukoanyar 1	SD	Public
214	East Java	Lamongan	Partner	SDN Turi	SD	Public
215	East Java	Lumajang	Comparison	MI Nurul Islam Kota Lumajang	MI	Private
216	East Java	Lumajang	Comparison	SDN Dawuhan Lor 1	SD	Public
217	East Java	Lumajang	Comparison	SDN Kepuhharjo 2	SD	Public
218	East Java	Lumajang	Comparison	SDN Tompokersan 3	SD	Public
219	East Java	Lumajang	Partner	MI Nurul Islam Selok Besuki	MI	Private
220	East Java	Lumajang	Partner	SDN Denok	SD	Public
221	East Java	Lumajang	Partner	SDN Jogotrunan	SD	Public
222	East Java	Lumajang	Partner	SDN Kuteranon 01	SD	Public
223	East Java	Madiun	Comparison	MI Salafiah Berek Pucanganom	MI	Private
224	East Java	Madiun	Comparison	SDN Balerejo 1	SD	Public
225	East Java	Madiun	Comparison	SDN Sugihwaras 1	SD	Public
226	East Java	Madiun	Comparison	SDN Sugihwaras 6	SD	Public
227	East Java	Madiun	Partner	MI Sailul Ulum Pagotan	MI	Private
228	East Java	Madiun	Partner	SDN Krajan 02	SD	Public
229	East Java	Madiun	Partner	SDN Ngampel 01	SD	Public
230	East Java	Madiun	Partner	SDN Purworejo 03	SD	Public
231	East Java	Mojokerto	Comparison	MI Nailul Ulum Bangun	MI	Private
232	East Java	Mojokerto	Comparison	SDN Kembangringgit li	SD	Public
233	East Java	Mojokerto	Comparison	SDN Lebaksono	SD	Public
234	East Java	Mojokerto	Comparison	SDN Trowulan 1	SD	Public
235	East Java	Mojokerto	Partner	MI Miftahul Ulum Mojokarang	MI	Private
236	East Java	Mojokerto	Partner	SDN Mojodowo	SD	Public
237	East Java	Mojokerto	Partner	SDN Mojowono	SD	Public
238	East Java	Mojokerto	Partner	SDN Segunung 1	SD	Public
239	East Java	Ngawi	Comparison	MIN Gelung Paron	MI	Public
240	East Java	Ngawi	Comparison	SDN Kendung	SD	Public
241	East Java	Ngawi	Comparison	SDN Klitik 1	SD	Public
242	East Java	Ngawi	Comparison	SDN Paron 1	SD	Public
243	East Java	Ngawi	Partner	MIN Mlarik Baderan	MI	Public
244	East Java	Ngawi	Partner	SDN Guyung 2	SD	Public
245	East Java	Ngawi	Partner	SDN Tambakromo 1	SD	Public
246	East Java	Ngawi	Partner	SDN Widodaren 1	SD	Public
247	East Java	Pamekasan	Comparison	MI Nurul Ulum 2	MI	Private
248	East Java	Pamekasan	Comparison	SDN Jalmak 1	SD	Public
249	East Java	Pamekasan	Comparison	SDN Kangeran 1	SD	Public
250	East Java	Pamekasan	Comparison	SDN Kangeran 2	SD	Public
251	East Java	Pamekasan	Partner	MI Miftahul Ulum Pandemawu Timur	SD	Public
252	East Java	Pamekasan	Partner	MIN Konang	MI	Public
253	East Java	Pamekasan	Partner	SDN Konang 2	SD	Public
254	East Java	Pamekasan	Partner	SDN Pandemawu Timur 2	SD	Public

No.	Province	District	Sampled Group	School Name	Type*	Status
255	East Java	Situbondo	Comparison	MI Miftahul Huda	MI	Private
256	East Java	Situbondo	Comparison	SDN 1 Mimbaan	SD	Public
257	East Java	Situbondo	Comparison	SDN 2 Pasir Putih	SD	Public
258	East Java	Situbondo	Comparison	SDN 4 Sumber Kolak	SD	Public
259	East Java	Situbondo	Partner	MI Al-Hikmatul Islamiyah	MI	Private
260	East Java	Situbondo	Partner	SDN 8 Kilensari	SD	Public
261	East Java	Situbondo	Partner	SDN 3 Kilensari	SD	Public
262	East Java	Situbondo	Partner	SDN 7 Besuki	SD	Public
263	South Sulawesi	Bantaeng	Comparison	Mis Ma'Arif Cedo	MI	Private
264	South Sulawesi	Bantaeng	Comparison	Sd Inpres Kaili	SD	Public
265	South Sulawesi	Bantaeng	Comparison	SDN 22 Beloparang	SD	Public
266	South Sulawesi	Bantaeng	Comparison	SDN 26 Tino Toa	SD	Public
267	South Sulawesi	Bantaeng	Partner	Mis Nurul Azma	MI	Private
268	South Sulawesi	Bantaeng	Partner	Sd Inpres Pullauweng	SD	Public
269	South Sulawesi	Bantaeng	Partner	SDN 7 Letta	SD	Public
270	South Sulawesi	Bantaeng	Partner	SDN 9 Lembang	SD	Public
271	South Sulawesi	Bone	Comparison	SDN 17 Bajoe	SD	Public
272	South Sulawesi	Bone	Comparison	SDN 20 Panyula	SD	Public
273	South Sulawesi	Bone	Comparison	SDN 48 Pacing	SD	Public
274	South Sulawesi	Bone	Comparison	SDN 50 Jaling	SD	Public
275	South Sulawesi	Bone	Partner	Sd Inpres 10/73 Bajoe	SD	Public
276	South Sulawesi	Bone	Partner	Sd Inpres 12/79 Lonrae	SD	Public
277	South Sulawesi	Bone	Partner	Sd Inpres 6/75 Pacing	SD	Public
278	South Sulawesi	Bone	Partner	Sd Inpres 6/80 Latteko	SD	Public
279	South Sulawesi	Kota Parepare	Comparison	MI Ddi Labukang	MI	Private
280	South Sulawesi	Kota Parepare	Comparison	SDN 28 Bacukiki	SD	Public
281	South Sulawesi	Kota Parepare	Comparison	SDN 43 Soreang	SD	Public
282	South Sulawesi	Kota Parepare	Comparison	SDN 55 Ujung	SD	Public
283	South Sulawesi	Kota Parepare	Partner	MI Ddi Ujung Lare	MI	Private
284	South Sulawesi	Kota Parepare	Partner	SDN 12 Parepare	SD	Public
285	South Sulawesi	Kota Parepare	Partner	SDN 34 Parepare	SD	Public
286	South Sulawesi	Kota Parepare	Partner	SDN 35 Parepare	SD	Public
287	South Sulawesi	Maros	Comparison	Mis Ddi Campalagi	MI	Private
288	South Sulawesi	Maros	Comparison	SDN 103 Hasanuddin	SD	Public
289	South Sulawesi	Maros	Comparison	SDN 233 Bonto Maero	SD	Public
290	South Sulawesi	Maros	Comparison	SDN 48 Bonto Kapetta	SD	Public
291	South Sulawesi	Maros	Partner	MIN Maros Baru	MI	Public
292	South Sulawesi	Maros	Partner	SDN 1 Pakalu 1	SD	Public
293	South Sulawesi	Maros	Partner	SDN 12 Pakalli 1	SD	Public
294	South Sulawesi	Maros	Partner	SDN 39 Kassi	SD	Public
295	South Sulawesi	Takalar	Comparison	SDN 147 Inpres Pa'Lalakkang	SD	Public
296	South Sulawesi	Takalar	Comparison	SDN 150 Inpres Tamala'Rang	SD	Public
297	South Sulawesi	Takalar	Comparison	SDN 151 Inpres Kalampa	SD	Public

No.	Province	District	Sampled Group	School Name	Type*	Status
298	South Sulawesi	Takalar	Comparison	SDN 190 Inpres Bura'Ne	SD	Public
299	South Sulawesi	Takalar	Partner	MIN Galesong Utara	MI	Public
300	South Sulawesi	Takalar	Partner	SDN 103 Inpres Sompu	SD	Public
301	South Sulawesi	Takalar	Partner	SDN 226 Inpres Lanna	SD	Public
302	South Sulawesi	Takalar	Partner	SDN 234 Takalar Kota	SD	Public
303	South Sulawesi	Tana Toraja	Comparison	SDN 120 Buntu Masakke	SD	Public
304	South Sulawesi	Tana Toraja	Comparison	SDN 126 Garampa'	SD	Public
305	South Sulawesi	Tana Toraja	Comparison	SDN 161 Leppan	SD	Public
306	South Sulawesi	Tana Toraja	Comparison	SDN 184 Inpres Ulusalu	SD	Public
307	South Sulawesi	Tana Toraja	Partner	MIN Makale	MI	Public
308	South Sulawesi	Tana Toraja	Partner	SDN 102 Makale 5	SD	Public
309	South Sulawesi	Tana Toraja	Partner	SDN 183 Inpres Balla Bittuang	SD	Public
310	South Sulawesi	Tana Toraja	Partner	SDN 187 Bittuang	SD	Public
311	South Sulawesi	Wajo	Comparison	MIN Lauwa	MI	Public
312	South Sulawesi	Wajo	Comparison	SDN 168 Rumpia	SD	Public
313	South Sulawesi	Wajo	Comparison	SDN 265 Assorajang	SD	Public
314	South Sulawesi	Wajo	Comparison	SDN 266 Pakkanna	SD	Public
315	South Sulawesi	Wajo	Partner	Mis As'Adiyah 3 Sengkang	MI	Private
316	South Sulawesi	Wajo	Partner	SDN 190 Ballere	SD	Public
317	South Sulawesi	Wajo	Partner	SDN 213 Lapongkoda	SD	Public
318	South Sulawesi	Wajo	Partner	SDN 234 Inrello	SD	Public
319	North Sumatra	Humbang Hasundutan	Partner	MIN Sihite Dolok Sanggul	MI	Public
320	North Sumatra	Humbang Hasundutan	Partner	SDN 173322 Parulohan Lintongnihuta	SD	Public
321	North Sumatra	Humbang Hasundutan	Partner	SDN 173431 Saitnihuta Dolok Sanggul	SD	Public
322	North Sumatra	Humbang Hasundutan	Partner	Sds 1 Hkbp Lintongnihuta	SD	Private
323	North Sumatra	Kota Medan	Comparison	Mis Al Hasanah	MI	Private
324	North Sumatra	Kota Medan	Comparison	SDN 064983	SD	Public
325	North Sumatra	Kota Medan	Comparison	SDN 064999	SD	Public
326	North Sumatra	Kota Medan	Comparison	SDN 066045	SD	Public
327	North Sumatra	Kota Medan	Partner	MIN Medan Tembung	MI	Public
328	North Sumatra	Kota Medan	Partner	SDN 060843	SD	Public
329	North Sumatra	Kota Medan	Partner	SDN 060849	SD	Public
330	North Sumatra	Kota Medan	Partner	SDN 067240	SD	Public
331	North Sumatra	Labuhan Batu	Comparison	Mis Perdamaian	MI	Private
332	North Sumatra	Labuhan Batu	Comparison	SDN 112145	SD	Public
333	North Sumatra	Labuhan Batu	Comparison	SDN 112147	SD	Public
334	North Sumatra	Labuhan Batu	Comparison	SDN 114381	SD	Public
335	North Sumatra	Labuhan Batu	Partner	MIN Padang Bulan	MI	Public
336	North Sumatra	Labuhan Batu	Partner	SDN 112134	SD	Public
337	North Sumatra	Labuhan Batu	Partner	SDN 114377	SD	Public
338	North Sumatra	Labuhan Batu	Partner	SDN 118252	SD	Public
339	North Sumatra	Labuhan Batu Utara	Partner	Mis Al Washliyah Panduan Na - Ix-X	MI	Private
340	North Sumatra	Labuhan Batu Utara	Partner	Sd Muhammadiyah I Aqp Kuala Hulu	SD	Private

No.	Province	District	Sampled Group	School Name	Type*	Status
341	North Sumatra	Labuhan Batu Utara	Partner	SDN 112321 Kampung Pajak Na- Ix-X	SD	Public
342	North Sumatra	Labuhan Batu Utara	Partner	SDN 115466 Wonosari Kuala Hulu	SD	Public
343	North Sumatra	Langkat	Comparison	MIN Tanjung Mulia	MI	Public
344	North Sumatra	Langkat	Comparison	SDN 050594 Sambirejo	SD	Public
345	North Sumatra	Langkat	Comparison	SDN 053970 Perdamean	SD	Public
346	North Sumatra	Langkat	Comparison	SDN 054929 Kampung Baru Pasar Viii	SD	Public
347	North Sumatra	Langkat	Partner	MIN Paluh Nipah	MI	Public
348	North Sumatra	Langkat	Partner	SDN 050660 Kuala Bingai	SD	Public
349	North Sumatra	Langkat	Partner	SDN 050661 Kuala Bingai	SD	Public
350	North Sumatra	Langkat	Partner	SDN 050728 Tanjung Pura	SD	Public
351	North Sumatra	Nias Selatan	Comparison	SDN 071099 Hilisimaetano	SD	Public
352	North Sumatra	Nias Selatan	Comparison	SDN 071105 Hilimaenamolo	SD	Public
353	North Sumatra	Nias Selatan	Comparison	SDN 071202 Helezalulu	SD	Public
354	North Sumatra	Nias Selatan	Comparison	SDN 071211 Helezalulu	SD	Public
355	North Sumatra	Nias Selatan	Partner	MIN Teluk Dalam	MI	Public
356	North Sumatra	Nias Selatan	Partner	Sd 078356 Hilitobara	SD	Public
357	North Sumatra	Nias Selatan	Partner	SDN No. 071212 Sifaoroasi	SD	Public
358	North Sumatra	Nias Selatan	Partner	SDN No. 071223 Orahili Gomo	SD	Public
359	North Sumatra	Serdang Bedagai	Partner	MIN Penggalangan	MI	Public
360	North Sumatra	Serdang Bedagai	Partner	Mis Al Washliyah Sei Tontong	MI	Private
361	North Sumatra	Serdang Bedagai	Partner	SDN 107450 Sei Rejo Sei Rampah	SD	Public
362	North Sumatra	Serdang Bedagai	Partner	SDN 108293 Perbaungan	SD	Public
363	North Sumatra	Toba Samosir	Comparison	SDN 173529 Tampahan	SD	Public
364	North Sumatra	Toba Samosir	Comparison	SDN 173582 Sigumpar	SD	Public
365	North Sumatra	Toba Samosir	Comparison	SDN 173592 Sigumpar	SD	Public
366	North Sumatra	Toba Samosir	Comparison	SDN 175803 Tampahan	SD	Public
367	North Sumatra	Toba Samosir	Partner	MIN Lumban Gurning Porsea	MI	Public
368	North Sumatra	Toba Samosir	Partner	Sd Swasta Hkbp 1 Balige	SD	Private
369	North Sumatra	Toba Samosir	Partner	SDN 173524 Balige	SD	Public
370	North Sumatra	Toba Samosir	Partner	SDN 173551 Laguboti	SD	Public

Annex C: List of Assessors

No	Province	Name	Institution
1	Aceh	Yulia Rahmi	District Education Office
2	Aceh	Nurul Fadhilah	Primary Teachers College Banda Aceh
3	Aceh	Adi Saleh	Muhammadiyah University
4	Aceh	Ratna Julita Simahate	UIN Ar Raniry Banda Aceh
5	Aceh	Nita Wiguna	Primary Teachers College Banda Aceh
6	Aceh	Mujjana	MORA Office Banda Aceh
7	Aceh	Adek Elvera C	MORA Office Banda Aceh
8	Aceh	Yunita Dewi	UIN Ar Raniry Banda Aceh
9	Aceh	Nilawati	District Education Office
10	North Sumatra	Ahmad Rozik Harahap	UIN-North Sumatra
11	North Sumatra	Fachrul Rozi Suherman	UNIMED (University of Medan)
12	North Sumatra	Hairani Sabrina	UIN-North Sumatra
13	North Sumatra	Mizanina Adlini	UNIMED
14	North Sumatra	Rilly Andika	UNIMED
15	North Sumatra	Salimah Angreiny	UIN-North Sumatra
16	North Sumatra	Suci Dahlya Narpila	Potensi Utama University
17	North Sumatra	Syafiq Anshori Solin	UNIMED
18	North Sumatra	Taufiq Akbar Tanjung	UNIMED
19	North Sumatra	Yanti Rambe	UNPRI
20	Banten	Ferny Irawati	SMP Rendhawa Cilegon
21	Banten	Widha Kurniasari	Primagama Cilegon
22	Banten	Deden Mashudi	MTs Al Ikhsan Cijawa Serang
23	Banten	Istiqomah	MI Darul Mukaromah Cilegon
24	Banten	Faizah	MI Nurul Hikmah Tangerang
25	Banten	Evy Septiani	SMK Wipama Tangerang
26	Banten	Nur Arlina	SMP IT La Royiba Serang
27	Banten	Rosianita Lestari	University of Sultan Ageng Tirtayasa
28	West Java	Rahmat Sutedi	UPI (Indonesia University of Education)
29	West Java	Mashudi	SDN 01 Klarapandak-Sukajaya-Bogor
30	West Java	Dici Rizka Anditia	Universitas Majalengka
31	West Java	Novia Deviyanti	SDN I Ujung Berung-Kota Bandung
32	West Java	Kamaludian Gumilar	SDN Sukapura-Cianjur
33	West Java	Titi Setiawati	STKIP Sumedang
34	West Java	Mariah Ulfah	STKIP Subang
35	West Java	Mela Darmayanti	UPI (Indonesia University of Education)
36	West Java	Aryadi	Balai Diklat Yayasan Al-Azhar-Bogor
37	West Java	Euis Tutih Rahmawati	SDN Citawa Pangalengan Kab.Bandung
38	West Java	Desi Sukmawati	Homebase Kuningan
39	West Java	Abudiman	Homebase Bandung
40	Central Java	Laily Safa'ati	UNY Yogyakarta
41	Central Java	Arief juang	UNNES Semarang
42	Central Java	M. Shofyan Al Nashr, M.Pd.I	Institut Pesantren Mathaliul Falah Pati
43	Central Java	Moh. Syakur	FITK UIN Walisongo Semarang

No	Province	Name	Institution
44	Central Java	Moh. Fasisko Irvan	UNNES Semarang
45	Central Java	Wening Nafidzah	UNY Yogyakarta
46	Central Java	Amalia Khusnul Khotimah	UNNES Semarang
47	Central Java	Nugraheti Sismulyasih Sabillah	UNNES Semarang
48	Central Java	Siviana Nur Faizah	MI Salafiyah, Kutukan, Kab. Blora
49	Central Java	Azwar Anas	UNY Yogyakarta
50	Central Java	Aprilia Pirera Ningtyas	UNNES Semarang
51	Central Java	Saminanto	UIN Walisongo Semarang
52	Central Java	Siti Rofiah	UNNES Semarang
53	Central Java	Bilqis Saqina	UIN Walisongo Semarang
54	East Java	Mardiyanti	SDN Panangungan Malang
55	East Java	Erika Mei Budiarti	Universitas Negeri Malang
56	East Java	Vivi Fitriana	Universitas Negeri Malang
57	East Java	M. Ghulaman Zakia	SDN Model Kota Malang
58	East Java	Khusnul Khotimah	Universitas Negeri Malang
59	East Java	Kardiani Izza Ell Milla	Universitas Negeri Malang
60	East Java	Ayu Hartini	Universitas Negeri Surabaya
61	East Java	Alik Nadzirah	Universitas Negeri Malang
62	East Java	Alief Jhanghiz Ahmada	Universitas Negeri Surabaya
63	East Java	SILICHA SOFIYATUL ULFA	Universitas Islam Negeri Sunan Ampel
64	East Java	YULI MUSRIFATUS S	Universitas Islam Negeri Sunan Ampel
65	East Java	NURMALA SAHIDAH	Universitas Islam Negeri Sunan Ampel
66	East Java	MUCHAMAD NANANG S	Universitas Islam Negeri Sunan Ampel
67	East Java	RAHMAT AFIF MAULANA	Universitas Islam Negeri Sunan Ampel
68	East Java	SITI MIFTACHUL KHASANAH	Universitas Islam Negeri Sunan Ampel
69	East Java	NUR LATIFAH	Universitas Islam Negeri Sunan Ampel
70	South Sulawesi	Misbahuddin	Graduate of PGMI UIN Alauddin
71	South Sulawesi	Fitriyani	Graduate of PGMI UIN Alauddin
72	South Sulawesi	Nurafni	Graduate of PGMI UIN Alauddin
73	South Sulawesi	Hadrawi	Graduate of PGMI UIN Alauddin
74	South Sulawesi	Aris Armianto	Graduate of PGSD UNM
75	South Sulawesi	Ilham Jafar	Graduate of PGSD UNM
76	South Sulawesi	Agus Supramono	Graduate of PGMI UIN Alauddin
77	South Sulawesi	Syamsuryani Eka Putri	Graduate of PGSD UNM

Annex D: EGRA Implementation Schedule

No.	Province	District	Date of Collection (2016)
1	Aceh	Aceh Jaya	November 2–3
		Aceh Barat Daya	November 4–5
		Pidie Jaya	November 7–8
		Aceh Tamiang	November 16–17
		Aceh Utara	November 18–19
		Bener Meriah	November 21–22
2	North Sumatra	Langkat	November 9–10
		Serdang Bedagai	November 12
		Toba Samosir	November 23–24
		Humbang Hasundutan	November 22
		Medan	November 18–19
		Labuhan Batu Utara	November 14
		Labuhan Batu	November 15–16
Nias Selatan	November 29–December 2		
3	Banten	Serang	November 23–24
		Pandeglang	November 24–25
		Tangerang	December 2–3
		Kota Tangerang Selatan	December 13–14
4	West Java	Kota Cimahi	November 3–4
		Kuningan	November 7–8
		Cirebon	November 9–10
		Bandung Barat	November 21–22
		Bekasi	November 23–24
		Tasikmalaya	November 28–29
		Ciamis	November 30–December 1
5	Central Java	Purbalingga	October 26–27
		Wonosobo	November 7–10
		Semarang	November 7–10
		Pekalongan	November 7–10
		Batang	November 14–17
		Banjarnegara	November 14–7
		Sragen	November 14–17
6	East Java	Banyuwangi	November 10
		Situbondo	November 1–12
		Lumajang	November 14–15
		Kota Batu	November 16
		Mojokerto	November 17–18
		Jombang	November 19
		Blitar	November 21–22
		Madiun	November 23–24
		Ngawi	November 25–26
		Pamekasan	November 28–29
		Lamongan	November 30
7	South Sulawesi	Maros	November 8–9
		Tana Toraja	November 11–12
		Pare-pare	November 14–15
		Wajo	November 16–17
		Bone	November 18–19
		Takalar	November 28–29
		Bantaeng	November 30–December 1

Annex E: Details of School and Teacher Indicators

Table E.1. Summary of the Base-, Mid-, and Endline School Monitoring Results in Partner Districts by Cohort

Indicator		Partner Schools			Comparison Schools		
		Baseline	Midline	Endline	Baseline	Midline	Endline
Year of monitoring							
Cohort 1		2012	2014	2016	2012	2014	2016
Cohort 2		2013	2015	2016	2013	2015	2016
Cohort 3		2014	2015	2016	2014	2015	2016
1.R2	Early grades teachers demonstrate good practices in teaching and assessing reading						
1.R2	Cohort 1	13.0%	66.8%	87.6%	15.8%	38.5%	44.9%
1.R2	Cohort 2	15.2%	77.5%	80.0%	15.6%	35.0%	49.4%
1.R2	Cohort 3	5.4%	67.9%	85.7%			
1 R6	Early grades reading materials are regularly used						
1 R6	Cohort 1	21.7%	50.0%	64.0%	23.4%	39.1%	41.6%
1 R6	Cohort 2	30.4%	59.4%	63.1%	28.8%	41.9%	46.8%
1 R6	Cohort 3	30.4%	41.1%	57.1%			
2 R3	School managers initiate activities to create a school reading culture						
2 R3	Cohort 1	24.8%	78.3%	96.8%	29.2%	50.3%	67.5%
2 R3	Cohort 2	42.1%	87.6%	97.8%	41.4%	52.9%	72.1%
2 R3	Cohort 3	14.3%	73.5%	91.8%			

Table E.2. Sub-indicator Summary of I.R6, Early Grades Reading Materials are Regularly Used

	Partner			Comparison		
	Baseline	Midline	Endline	Baseline	Midline	Endline
Cohort 1	2012	2014	2016	2012	2014	2016
a. Regular reading periods	45%	91%	99%	39%	87%	96%
b. Students take books home to read	41%	53%	64%	42%	42%	42%
Cohort 2	2013	2015	2016	2013	2015	2016
a. Regular reading periods	75%	99%	97%	76%	91%	98%
b. Students take books home to read	35%	59%	63%	36%	44%	47%
Cohort 3	2014	2015	2016	2014	2015	2016
a. Regular reading periods	70%	82%	96%			
b. Students take books home to read	38%	41%	43%			

Table E.3. Sub-indicator Summary of I.R2, Early Grade Teachers Demonstrate Good Practice in Teaching and Assessing Reading (Primary School ONLY)

	Partner			Comparison		
	Baseline	Midline	Endline	Baseline	Midline	Endline
Cohort 1	2012	2014	2016	2012	2014	2016
a. Provide specific grade-appropriate instruction to the learner in order to build word knowledge and teach word analysis	40%	69%	90%	42%	57%	70%
b. Provide opportunities for students to engage in sustained reading activities to practice their reading skills	74%	91%	96%	82%	84%	83%
c. Create a literacy rich classroom environment	33%	79%	92%	34%	44%	52%
d. Check students' comprehension of what they are reading	24%	71%	87%	23%	53%	51%
e. Read aloud to students/ask students to read aloud using a range of materials to enhance children's print and phonological awareness	47%	86%	97%	60%	72%	74%
f. Conduct regular and purposeful monitoring of children's progress in reading	46%	74%	84%	57%	59%	63%
Cohort 2	2013	2015	2016	2013	2015	2016
a. Provide specific grade-appropriate instruction to the learner in order to build word knowledge and teach word analysis	53%	89%	87%	54%	71%	75%
b. Provide opportunities for students to engage in sustained reading activities to practice their reading skills	78%	93%	94%	77%	76%	82%
c. Create a literacy rich classroom environment	20%	95%	89%	28%	46%	51%
d. Check students' comprehension of what they are reading	23%	71%	86%	26%	41%	61%
e. Read aloud to students/ask students to read aloud using a range of materials to enhance children's print and phonological awareness	61%	88%	90%	63%	73%	72%
f. Conduct regular and purposeful monitoring of children's progress in reading	44%	76%	76%	46%	53%	59%
Cohort 3	2014	2015	2016	2014	2015	2016
a. Provide specific grade-appropriate instruction to the learner in order to build word knowledge and teach word analysis	29%	80%	84%			
b. Provide opportunities for students to engage in sustained reading activities to practice their reading skills	71%	95%	100%			
c. Create a literacy rich classroom environment	16%	84%	88%			
d. Check students' comprehension on what they are reading	25%	66%	84%			
e. Read aloud to students/ask students to read aloud using a range of materials to enhance children's print and phonological awareness	41%	84%	98%			
f. Conduct regular and purposeful monitoring of children's progress in reading	21%	68%	88%			

Annex F: Details of Weighting and Data Changes from Baseline

Weighting Theory and Formulas

Stage 1: Geographic Area–School Level Weights

- As stated in the report, the districts and schools selected for this study were chosen in a non-random, purposeful manner, considering commitment to the project and accessibility by project staff for intervention visits.
- For this reason, all schools in the sample were sampled with certainty. That is, the school level weights are all set to 1, because each school had a 100% chance of being in the study.
- The school-level weight for students in grade 3 is:

$$school\ weight_{ic} = 1,$$

where school i is in cohort c .

Stage 2: Student-Level Weights

- Students were randomly selected using a systematic, simple, random sampling technique by gender. A maximum of 24 grade 3 students were selected in each school, with the sampled students consisting of 12 girls and 12 boys, when possible.
- This resulted in student-level weights that are the inverse of the sampling rate with respect to gender.
- The student-level weight for student j with gender g attending school i is:

$$student\ weight_{jig} = \frac{\# \text{ Students in School}_i \text{ with Gender}_g}{\# \text{ Students Sampled in School}_i \text{ with Gender}_g}$$

Changes to Sampled Schools from Baseline to Endline

The estimates published in this report may differ from estimates published in earlier USAID PRIORITAS reports. This occurred for a few reasons.

- 1) One comparison school from Cohort 1 baseline declined to continue participation in the study at mid- and endline. All data collected from this school at baseline was removed from the intervention analyses.
- 2) While verifying the endline data, an effort was made to thoroughly review all data collected by the USAID PRIORITAS project. This resulted in the removal of about 40 invalid baseline student EGRA assessments: 34 from Cohort 1 and 5 from Cohort 2.
- 3) It was also discovered by reviewing assessment times, provinces, and assessors that 8 baseline student assessments from Cohort 1 were assigned to the wrong school; these have been adjusted in the endline intervention dataset.

These changes only effect estimates for Cohorts 1 and 2 and did require the recalculation of the weights of students in the affected schools. The same formula, as detailed above, was used with slight changes. For schools with deleted observations, the total grade 3 student count decreased by the number of invalid observations in the affected schools. For those students assigned to the incorrect school at baseline, the total number of students assessed in the affected schools changed by ± 1 student.

Annex G: Creation of Comparison Group for Cohort 3

In Cohorts 1 and 2, comparison schools were identified along with partner schools throughout all three points of data collection. However, only partner schools were followed and tested for the duration of Cohort 3. Therefore, to determine the impact of the USAID PRIORITAS intervention on these Cohort 3 partner schools, propensity matching was used to create a comparison group using baseline data already collected from Cohorts 1 and 2 comparison schools.

Each of the 28 baseline partner schools in Cohort 3 were matched to baseline comparison schools in Cohorts 1 and 2, based on the following characteristics: region, school faith, school location, the percentage of students who have books at home, and the percentage of students who speak Bahasa Indonesia at home. A few caveats emerge with using this technique:

1. Estimates for the comparison group cannot be disaggregated beyond the sampled group and intervention phase.
2. Although the propensity matching controlled for most of the available demographic information, one thing for which it could not control was the year during the USAID PRIORITAS program at which baseline occurred for each of the three cohorts. Because of this, an assumption must be made that no differences existed between each of those three time points that may have affected any student outcomes.
3. An assumption must be made that students from similar schools have similar reading abilities.

The first caveat is addressed by reporting difference-in-difference (DID) values for these subpopulations, but not reporting the actual point estimates. Estimates are only provided for overall partner and comparison schools at baseline and endline. The second caveat was an assumption that the team felt comfortable making, because comparison schools should not have received any of the USAID PRIORITAS interventions at any point during the program. Finally, the last caveat was an assumption that was confirmed through balance testing between the partner schools and the newly created comparison group; this is further discussed below.

At baseline, student performance on key variables should be similar across intervention levels (i.e., partner and comparison schools). This indicates that students are starting at roughly the same point prior to intervention. Similar groups at baseline allow for gains observed later in the study to be accurately attributed to the intervention rather than other factors. Baseline equivalence testing is especially important in the case of Cohort 3, where the control group was artificially created. This section assesses baseline equivalence across intervention levels and provides solutions for addressing imbalances between the levels.

It is important to establish equivalence across the groups at baseline because lack of equivalence will result in mis-estimating the impact of the intervention. For example, consider two students who are at very different ends of the reading spectrum: one a fluent reader and the other able to recognize only a few words. When provided the same intervention, it would be expected that the second student would show greater gains at the end of the year. The question is, did they show the gains because of the USAID PRIORITAS intervention or because they had room for more growth? If these two students had started with equivalent reading proficiencies prior to exposure to the intervention, then any difference in scores at endline would more likely be due to the intervention rather than an outside factor. For this

reason, establishing baseline equivalence between partner and comparison groups is important in determining the intervention effect.

According to the What Works Clearinghouse (WWC), baseline equivalence is measured by examining the standardized mean difference between the comparison and partner groups (Institute of Educational Statistics, U.S. Department of Education, 2014). This standardized mean difference is calculated by dividing the difference in means between the baseline comparison and partner groups by their pooled standard deviation, and is an effect size called Cohen’s *d* (Cohen, 1988). The baseline equivalence is then determined by comparing the effect size to the values in **Table G.1** below.

Table G.1. WWC Standard for Baseline Equivalence

Absolute value of effect size ≤ 0.05	$0.05 <$ Absolute value of effect size ≤ 0.25	Absolute value of effect size > 0.25
Satisfies baseline equivalence	Statistical adjustment required to satisfy baseline equivalence	Does not satisfy baseline equivalence

(Institute of Educational Sciences, U.S. Department of Education, 2014)

For effect sizes with absolute values less than or equal to 0.05, a simple difference of mean scores can be used to estimate the impact of the reading program. Values greater than 0.05 and less than or equal to 0.25 require “statistical adjustment” to adjust for observed differences on the particular characteristics. Difference-in-difference regression models with the additional variables that require statistical adjustment can be used to satisfy this requirement. If the effect size is greater than 0.25, a more challenging solution is necessary, which may involve re-drawing the sample.

For establishing baseline equivalence for Cohort 3, the main outcome for measuring reading achievement is equated ORF. **Table G.2** shows the results of tests for baseline ORF equivalence between the partner and comparison groups. The result of the baseline equivalence test, which is an effect size, in **Table G.2** has been color coded light blue to match **Table G.1**. Because the effect size is less than 0.05, the baseline results are balanced.

Table G.2. Baseline Equivalence for Comparison and Partner Schools

Intervention Level	Mean	Standard deviation	# of students	Absolute mean score difference	Pooled standard deviation	Baseline equivalence test
Comparison	67.70	30.60	576			
Partner	68.31	24.67	651	0.61	27.61	0.022

Bibliography

- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Earlbaum Associates.
- Institute of Educational Sciences, U.S. Department of Education. (2014). *What Works Clearinghouse: Procedures and Standards Handbook, 3.0*. Washington, DC: Institute of Education Sciences.

Annex H: Details of Equating Baseline Oral Reading Scores to Endline EGRA

The reading passage used for oral reading fluency (ORF) at mid- and endline were different from the reading passages used at baseline for both Cohorts 1 and 2. That is, three different oral reading passages were used to measure ORF over the duration of the USAID PRIORITAS study (see **Table H.1** – Oral Reading Passage in EGRA).

To compare scores across time and produce overall estimates, the ORF scores from the Cohorts 1 and 2 baseline passages had to be adjusted to the endline passage. That is all ORF values had to be adjusted as though the students were given the same passage at all time points (see **Table H.1** – Oral Reading Passage After Equating). These adjusted ORF scores are used for all analyses in this report. The following sections provide details on the equating formula used to connect the baseline ORF scores to endline ORF scores for Cohorts 1 and 2.

Table H.1. Oral Reading Passages Before and After Equating

Cohort	Baseline	Midline	Endline
Oral Reading Passage in EGRA (Pre-Equating)			
Cohort 1	X	Z	Z
Cohort 2	Y	Z	Z
Cohort 3	Z		Z
Oral Reading Passage After Equating			
Cohort 1	Z*	Z	Z
Cohort 2	Z*	Z	Z
Cohort 3	Z		Z

Cohort 1 Equating Formula

The Cohort 1 baseline and endline reading passages in subtask 4A, oral reading fluency, were administered on February 24, 2015, to 47 grade 2 students attending the Tara Salvia School in South Jakarta. The performance on each reading passage was analyzed. Due to less than 5% of the Cohort 1 baseline sample scoring above 115 and less than 2% of the Cohort 1 midline sample scoring above 110, oral reading results for four grade 2 students were removed from the equating calculation. On the endline assessment, the sampled grade 2 students scored, on average, 71.3 cwpm with a standard error of 2.78; on the baseline assessment, these same students averaged 78.9 cwpm with a standard error of 2.94.

Baseline ORF scores were adjusted to be on the same scale as the endline oral reading assessment by a piece-wise linear equating approach. Students were divided into two groups:

- 1) Students with a zero baseline ORF, and
- 2) Students scoring above a zero at baseline ORF.

Students in the first group were equated to endline ORF scores with zero values. That is:

$$orf_{equated\ to\ endline} = orf_{baseline} = 0$$

Students in the second group were equated with linear equating to maintain the mean and standard error of the endline ORF assessment using the following equation:

$$orf_{equated\ to\ endline} = \frac{2.78}{2.94} * (orf_{baseline} - 78.9) + 71.3$$

When equated ORF scores were less than zero, the equated ORF score was set to zero.

Cohort 2 Equating Formula

The Cohort 2 baseline and endline reading passages were administered on March 3 and 4, 2016, to 97 grade 2 students attending the SDN Bonjong I and SDN Mekarari Schools in Banten and SND 1 and 3 Sukaraja Schools in West Java. The performance on each reading passage for all 97 students was analyzed. On the endline passage, these assessed students scored, on average, 52.2 cwpm with a standard error of 2.77; on the baseline passage, these same students averaged 59.5 cwpm with a standard error of 2.96.

Baseline ORF scores were adjusted to be on the same scale as the endline oral reading assessment by a piece-wise linear equating approach. Students were divided into two groups:

- 1) Students with a zero baseline ORF, and
- 2) Students scoring above a zero at baseline ORF.

Students in the first group were equated to endline ORF scores with zero values. That is:

$$orf_{equated\ to\ endline} = orf_{baseline} = 0$$

Students in the second group were equated with linear equating to maintain the mean and standard error of the endline ORF assessment using the following equation:

$$orf_{equated\ to\ endline} = \frac{2.77}{2.96} * (orf_{baseline} - 59.5) + 52.2$$

When equated ORF scores were less than zero, the equated ORF score was set to zero.

Annex I: Reliability and Validity

The research team assessed internal consistency to evaluate reliability. Internal consistency is an appropriate and standard classical evaluation approach for cross-sectional data, and when combined with item-level evaluative psychometric methods, it provides insight on item and/or subtask functioning. Internal consistency (Cronbach, 1951) is the average correlation of all possible half-scale divisions and is frequently provided in published assessment psychometrics. The range of the internal consistency statistic is from zero to one, where higher values are desired and a value of zero indicates inconsistency of measurement. As a general guideline, Cronbach’s alpha should be at least 0.70 for adequacy, and coefficients closer to one indicate a good assessment (Aron, 1999).

The Cronbach’s alpha coefficient was computed using the STATA analytic software, which produced **Table I.1** below. The first three columns of **Table I.1** provide general subtask information, including the subtask name and the number of students accounted for within the subtask. The next three columns provide interrelationship information, including item-test correlations (the correlation between a subtask and the entire scale), item-rest correlations (the correlation between a subtask and the scale that is formed by all other subtasks), and the Cronbach’s alpha (discussed above). Overall, the subtask scores show good reliability statistics (Cronbach’s Alpha of at least 0.80), with an average alpha score of 0.869 for the EGRA subtasks. These results exclude the artificial Cohort 3 comparison group. Results for each cohort (1, 2, and 3) can be found in **Tables I.2 to I.4**, respectively.

Table I.1. Reliability and Validity for USAID PRIORITAS Endline, All Cohorts*

Subtask**	# of Students	Item-Test Correlation	Item-Rest Correlation	Alpha
Letter-Name Knowledge (CLPM)	8,179	0.818	0.688	0.845
Familiar Word Reading (CWPM)	8,180	0.956	0.912	0.781
Invented Word Decoding (CIWPM)	8,179	0.911	0.866	0.812
Oral Reading Fluency (ORF)	8,181	0.940	0.879	0.792
Reading Comprehension (5)	8,181	0.742	0.734	0.918
Overall				0.869

*Cohort 3 comparison schools were omitted for reliability calculations.

** Listening comprehension was removed due to its low correlation with the remaining EGRA variables.

Table I.2. Reliability and Validity for USAID PRIORITAS Endline, Cohort 1

Subtask*	# of Students	Item-Test Correlation	Item-Rest Correlation	Alpha
Letter-Name Knowledge (CLPM)	3,995	0.817	0.686	0.845
Familiar Word Reading (CWPM)	3,995	0.956	0.910	0.781
Invented Word Decoding (CIWPM)	3,995	0.911	0.866	0.812
Oral Reading Fluency (ORF)	3,996	0.941	0.881	0.791
Reading Comprehension (5)	3,996	0.743	0.736	0.918
Overall				0.869

*Listening comprehension was removed due to its low correlation with the remaining EGRA variables.

Table I.3. Reliability and Validity for USAID PRIORITAS Endline, Cohort 2

Subtask*	# of Students	Item-Test Correlation	Item-Rest Correlation	Alpha
Letter-Name Knowledge (CLPM)	3,526	0.824	0.699	0.846
Familiar Word Reading (CWPM)	3,527	0.958	0.915	0.785
Invented Word Decoding (CIWPM)	3,526	0.914	0.870	0.816
Oral Reading Fluency (ORF)	3,527	0.941	0.881	0.797
Reading Comprehension (5)	3,527	0.750	0.743	0.921
Overall				0.872

*Listening comprehension was removed due to its low correlation with the remaining EGRA variables.

Table I.4. Reliability and Validity for USAID PRIORITAS Endline, Cohort 3*

Subtask**	# of Students	Item-Test Correlation	Item-Rest Correlation	Alpha
Letter-Name Knowledge (CLPM)	658	0.784	0.629	0.834
Familiar Word Reading (CWPM)	658	0.950	0.899	0.750
Invented Word Decoding (CIWPM)	658	0.892	0.837	0.790
Oral Reading Fluency (ORF)	658	0.925	0.847	0.769
Reading Comprehension (5)	658	0.660	0.651	0.901
Overall				0.852

*Table I.4 only contains data from Cohort 3 partner schools.

** Listening comprehension was removed due to its low correlation with the remaining EGRA variables.

Bibliography

- Aron, A., Coups, E., & Aron, E. (1999). *Statistics for psychology (2 ed.)*. Upper Saddle River, NJ: Prentice Hall.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, (16)3, 297–334.

Annex J: Sample Description

Table J.1. School Counts for Cohort 1

Province	Total	Urban	Rural	Public	Private	Secular	Religious
Aceh (2 districts)							
Comparison	7	2	5	7	0	5	2
Partner	8	2	6	8	0	4	4
North Sumatra (3 districts)							
Comparison	12	5	7	10	2	10	2
Partner	12	7	5	12	0	9	3
Banten (2 districts)							
Comparison	8	2	6	6	2	6	2
Partner	8	5	3	6	2	6	2
West Java (3 districts)							
Comparison	12	6	6	8	4	9	3
Partner	12	8	4	9	3	9	3
Central Java (5 districts)							
Comparison	19	9	10	15	4	14	5
Partner	20	8	12	15	5	15	5
East Java (5 districts)							
Comparison	20	16	4	15	5	15	5
Partner	20	8	12	16	4	15	5
South Sulawesi (3 districts)							
Comparison	12	2	10	10	2	9	3
Partner	12	6	6	10	2	9	3
Total (23 districts)							
Comparison	90	42	48	71	19	68	22
Partner	92	44	48	76	16	67	25

Table J.2. Student Counts for Cohort 1

Province	Total	Baseline	Midline	Endline	Male	Female	Urban	Rural
Aceh (2 districts)								
Comparison	430	138	151	141	200	230	140	290
Partner	501	159	157	185	250	251	144	357
North Sumatra (3 districts)								
Comparison	791	274	260	257	399	392	340	451
Partner	844	275	281	288	428	416	493	351
Banten (2 districts)								
Comparison	538	184	177	177	266	272	133	405
Partner	549	180	187	182	277	272	336	213
West Java (3 districts)								
Comparison	823	267	285	271	423	400	420	403
Partner	819	264	280	275	416	403	557	262
Central Java (5 districts)								
Comparison	1,356	464	449	443	694	662	643	713
Partner	1,349	456	455	438	721	628	579	770
East Java (5 districts)								
Comparison	1,241	421	430	390	615	626	1,035	206
Partner	1,294	441	434	419	661	633	520	774
South Sulawesi (3 districts)								
Comparison	747	258	241	248	387	360	127	620
Partner	841	283	276	282	441	400	433	408
Total (23 districts)								
Comparison	5,926	2,006	1,993	1,927	2,984	2,942	2,838	3,088
Partner	6,197	2,058	2,070	2,069	3,194	3,003	3,062	3,135

Table J.3. School Counts for Cohort 2

Province	Total	Urban	Rural	Public	Private	Secular	Religious
Aceh (4 districts)							
Comparison	16	5	11	16	0	12	4
Partner	16	8	8	16	0	12	4
North Sumatra (2 districts)							
Comparison	8	0	8	8	0	7	1
Partner	8	4	4	7	1	6	2
Banten (2 districts)							
Comparison	8	2	6	4	4	4	4
Partner	8	3	5	4	4	5	3
West Java (4 districts)							
Comparison	16	8	8	12	4	12	4
Partner	16	8	8	14	2	12	4
Central Java (2 districts)							
Comparison	8	5	3	5	3	6	2
Partner	8	4	4	5	3	6	2
East Java (2 districts)							
Comparison	8	4	4	7	1	6	2
Partner	8	4	4	7	1	6	2
South Sulawesi (4 districts)							
Comparison	16	6	10	15	1	15	1
Partner	16	9	7	15	1	13	3
Total (20 districts)							
Comparison	80	30	50	67	13	62	18
Partner	80	40	40	68	12	60	20

Table J.4. Student Counts for Cohort 2

Province	Total	Baseline	Midline	Endline	Male	Female	Urban	Rural
Aceh (4 districts)								
Comparison	1,050	356	347	347	528	522	343	707
Partner	1,017	335	346	336	512	505	514	503
North Sumatra (2 districts)								
Comparison	481	164	151	166	238	243	0	481
Partner	572	192	192	188	292	280	288	284
Banten (2 districts)								
Comparison	558	182	188	188	278	280	144	414
Partner	572	191	192	189	288	284	212	360
West Java (4 districts)								
Comparison	1,117	384	375	358	561	556	569	548
Partner	1,146	381	383	382	572	574	576	570
Central Java (2 districts)								
Comparison	575	194	192	189	290	285	362	213
Partner	562	184	192	186	277	285	282	280
East Java (2 districts)								
Comparison	527	168	178	181	257	270	277	250
Partner	531	176	171	184	262	269	288	243
South Sulawesi (4 districts)								
Comparison	931	318	308	305	478	453	291	640
Partner	1,013	345	340	328	525	488	624	389
Total (20 districts)								
Comparison	5,239	1766	1739	1734	2630	2609	1986	3253
Partner	5,413	1804	1816	1793	2728	2685	2784	2629

Table J.5. School Counts for Cohort 3

Province	Total	Urban	Rural	Public	Private	Secular	Religious
North Sumatra (3 districts)							
Comparison							
Partner	12	5	7	8	4	8	4
East Java (4 districts)							
Comparison							
Partner	16	8	8	10	6	12	4
Total (7 districts)							
Comparison							
Partner	28	13	15	18	10	20	8

Table J.6. Student Counts for Cohort 3

Province	Total	Baseline	Endline	Male	Female	Urban	Rural
North Sumatra (3 districts)							
Comparison							
Partner	576	288	288	285	291	240	336
East Java (4 districts)							
Comparison							
Partner	733	363	370	366	367	384	349
Total (7 districts)							
Comparison							
Partner	1,309	651	658	651	658	624	685

Annex K: Additional Statistical Analyses

Graphics in this Annex were redacted because they present only supplementary/auxiliary information that is not vital to understanding this report; furthermore, their complexity precludes them from being explained via alt-text character limits for 508 compliance.

Summary Statistics by Cohort

Note the meaning of the following symbols for the tables presented in this section of Annex K.

+ Significant difference between partner and comparison sampled group at time point, $\alpha = 0.01$

* Significant difference between baseline and mid-/endline within partner or comparison sampled group, $\alpha = 0.01$

Significant difference-in-difference between partner and comparison sampled group growth over time, $\alpha = 0.01$

Table K.1. Cohort 1 Summary Statistics

Subtask	Group	Baseline	Midline	Endline	D-in-D	p-value	D-in-D Effect Size
		Mean (SE)					
Letter-Name Knowledge (CLPM)	Comparison	84.7 (0.36)	87.8 (0.36)	89.2 (0.4) [*]	-0.82	0.3	-0.03
	Partner	86.6 (0.41)	87.8 (0.43)	90.3 (0.41) [*]			
Familiar Word Reading (CWPM)	Comparison	67.9 (0.38)	66.8 (0.42)	68.8 (0.46)	-2.39	< 0.01	-0.09
	Partner	72.8 (0.42)	70.8 (0.48)	71.3 (0.47) ⁺			
Invented Word Decoding (CIWPM)	Comparison	34.3 (0.22)	38.3 (0.26)	39.5 (0.3) [*]	-1.15	0.04	-0.07
	Partner	36.6 (0.27)	40.7 (0.31)	40.7 (0.32) [*]			
Oral Reading Fluency (ORF)	Comparison	58.3 (0.34)	60.3 (0.4)	63.6 (0.45) [*]	-1.76	0.04	-0.06
	Partner	63.5 (0.4)	65.3 (0.47)	67.1 (0.48) ⁺⁺			
Reading Comprehension (5)	Comparison	3.2 (0.02)	3.7 (0.02)	3.7 (0.02) [*]	0.04	0.35	0.03
	Partner	3.3 (0.02)	3.9 (0.02)	3.9 (0.02) ⁺⁺			
Listening Comprehension (3)	Comparison	1.5 (0.01)	2.5 (0.01)	2.5 (0.01) [*]	0.005	0.87	0.01
	Partner	1.6 (0.02)	2.6 (0.01)	2.6 (0.01) ⁺⁺			
80% or Better on Reading Comprehension	Comparison	44% (0.76)	67.9% (0.76)	67% (0.72) [*]	-0.004	0.81	-0.01
	Partner	50.2% (0.99)	71.1% (0.9)	72.9% (0.84) ⁺⁺			

Table K.2. Cohort 1 Zero Scores

Subtask	Group	Baseline	Midline	Endline	D-in-D	p-value	D-in-D Effect Size
		% Zero Scores (SE)					
Letter-Name Knowledge (CLPM)	Comparison	0.6% (0.12)	0.3% (0.08)	0.1% (0.02) [*]	0.003	0.03	0.06
	Partner	0.2% (0.07)	0.2% (0.08)	0.1% (0.03)			
Familiar Word Reading (CWPM)	Comparison	1.9% (0.21)	3.2% (0.28)	2.9% (0.24) [*]	-0.01	0.01	-0.07
	Partner	1.5% (0.16)	2.2% (0.21)	1.4% (0.15) ⁺			
Invented Word Decoding (CIWPM)	Comparison	3.6% (0.27)	5.3% (0.35)	5.1% (0.35) [*]	-0.02	< 0.01	-0.12
	Partner	3.5% (0.28)	3.7% (0.28)	2.7% (0.22) ⁺			
Oral Reading Fluency (ORF)	Comparison	1.9% (0.21)	3.7% (0.3)	3% (0.24) [*]	-0.009	0.03	-0.06
	Partner	1.6% (0.16)	2.7% (0.22)	1.8% (0.18) ⁺			
Reading Comprehension (5)	Comparison	3.4% (0.27)	2.5% (0.27)	5.3% (0.33) [*]	-0.02	< 0.01	-0.09
	Partner	2.9% (0.33)	1.6% (0.26)	3% (0.23) ⁺			

Subtask	Group	Baseline	Midline	Endline	D-in-D	p-value	D-in-D Effect Size
		% Zero Scores (SE)					
Listening Comprehension (3)	Comparison	18% (0.64)	1.9% (0.21)	3.7% (0.37)*	0.006	0.56	0.02
	Partner	15.6% (0.73)	2% (0.22)	1.9% (0.23)**			

Table K.3. Cohort 2 Summary Statistics

Subtask	Group	Baseline	Midline	Endline	D-in-D	p-value	D-in-D Effect Size
		Mean (SE)					
Letter-Name Knowledge (CLPM)	Comparison	83.8 (0.43)	85.8 (0.51)	88.3 (0.49)*	1.55	0.1	0.06
	Partner	85.7 (0.47)	87.2 (0.45)	91.7 (0.52)**			
Familiar Word Reading (CWPM)	Comparison	65.1 (0.49)	66.8 (0.57)	69.2 (0.55)*	1.26	0.24	0.04
	Partner	69.5 (0.57)	70.8 (0.53)	74.8 (0.54)**			
Invented Word Decoding (CIWPM)	Comparison	33.1 (0.31)	38.8 (0.42)	39.6 (0.37)*	1.19	0.08	0.07
	Partner	34.9 (0.35)	40.4 (0.36)	42.6 (0.35)**			
Oral Reading Fluency (ORF)	Comparison	61.6 (0.48)	61.9 (0.54)	65.2 (0.54)*	0.27	0.8	0.01
	Partner	66.6 (0.58)	65.4 (0.54)	70.4 (0.54)**			
Reading Comprehension (5)	Comparison	3.2 (0.03)	3.7 (0.03)	3.8 (0.03)*	-0.02	0.68	-0.02
	Partner	3.4 (0.03)	3.9 (0.03)	4 (0.02)**			
Listening Comprehension (3)	Comparison	1.5 (0.02)	2.6 (0.01)	2.5 (0.02)*	-0.06	0.08	-0.07
	Partner	1.6 (0.02)	2.6 (0.01)	2.6 (0.02)*			
80% or Better on Reading Comprehension	Comparison	52.1% (0.94)	65.7% (0.93)	69.7% (0.89)*	0.009	0.64	0.02
	Partner	55.6% (1.09)	72.8% (0.93)	74.1% (0.91)**			

Table K.4. Cohort 2 Zero Scores

Subtask	Group	Baseline	Midline	Endline	D-in-D	p-value	D-in-D Effect Size
		% Zero Scores (SE)					
Letter-Name Knowledge (CLPM)	Comparison	0.4% (0.14)	0.2% (0.06)	0.2% (0.07)	0.001	0.72	0.01
	Partner	0.3% (0.1)	0.2% (0.07)	0.2% (0.1)			
Familiar Word Reading (CWPM)	Comparison	4.5% (0.35)	2.7% (0.22)	2.8% (0.27)*	0.003	0.55	0.02
	Partner	2.8% (0.31)	2.1% (0.3)	1.5% (0.18)**			
Invented Word Decoding (CIWPM)	Comparison	8% (0.45)	6.3% (0.36)	4.7% (0.34)*	0.01	0.18	0.04
	Partner	5.1% (0.4)	5% (0.49)	2.7% (0.26)**			
Oral Reading Fluency (ORF)	Comparison	4.6% (0.32)	3.9% (0.28)	3.1% (0.27)*	0.001	0.86	0.01
	Partner	3% (0.33)	3.1% (0.36)	1.7% (0.21)**			
Reading Comprehension (5)	Comparison	9.8% (0.5)	6.4% (0.36)	5.2% (0.34)*	0.02	0.04	0.07
	Partner	6.2% (0.47)	4.4% (0.39)	3.2% (0.32)**			
Listening Comprehension (3)	Comparison	17.8% (0.71)	1.7% (0.22)	2.4% (0.31)*	0.04	< 0.01	0.13
	Partner	14.3% (0.73)	1.6% (0.2)	2.7% (0.32)*			

Table K.5. Cohort 3 Summary Statistics

Subtask	Group	Baseline	Endline	D-in-D ¹	p-value	D-in-D Effect Size
		Mean (SE)				
Letter-Name Knowledge (CLPM)	Comparison			-1.67	0.26	-0.07
	Partner	88 (0.67)	91.4 (0.78) ⁺			
Familiar Word Reading (CWPM)	Comparison			3.8	0.03	0.13
	Partner	71.6 (0.75)	74.7 (0.89) ⁺			
Invented Word Decoding (CIWPM)	Comparison			-2.51	0.03	-0.14
	Partner	42 (0.51)	43 (0.59)			
Oral Reading Fluency (ORF)	Comparison			-3.48	0.07	-0.12
	Partner	68.3 (0.76)	71.5 (0.83) ⁺			
Reading Comprehension (5)	Comparison			-0.49	< 0.01	-0.36
	Partner	4.1 (0.03)	4.1 (0.04) ⁺			
Listening Comprehension (3)	Comparison			-0.82	< 0.01	-1.04
	Partner	2.6 (0.02)	2.7 (0.02) ⁺			
80% or Better on Reading Comprehension	Comparison			-0.2	< 0.01	-0.43
	Partner	75.3% (1.31)	78.1% (1.29) ⁺			

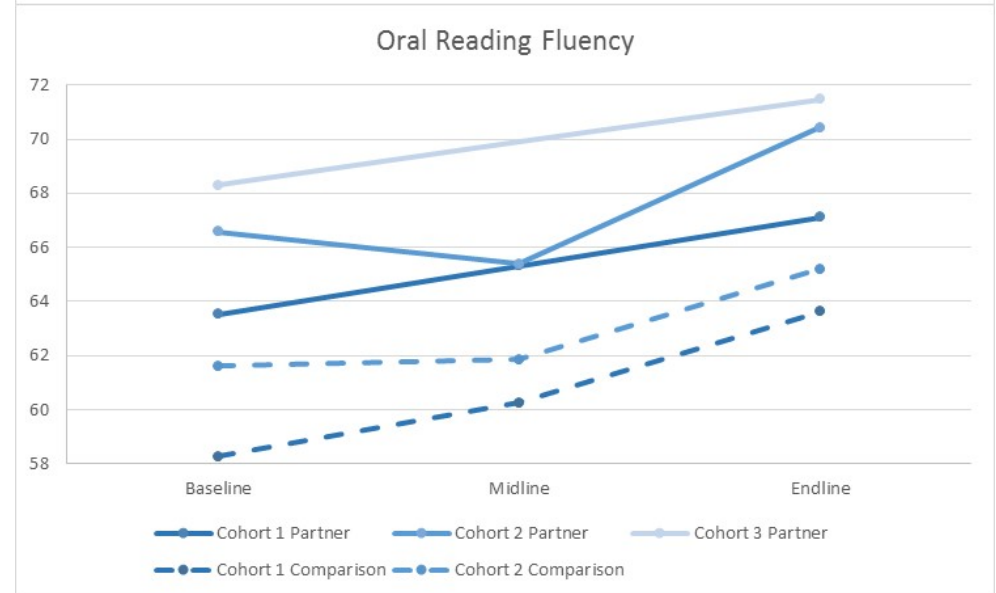
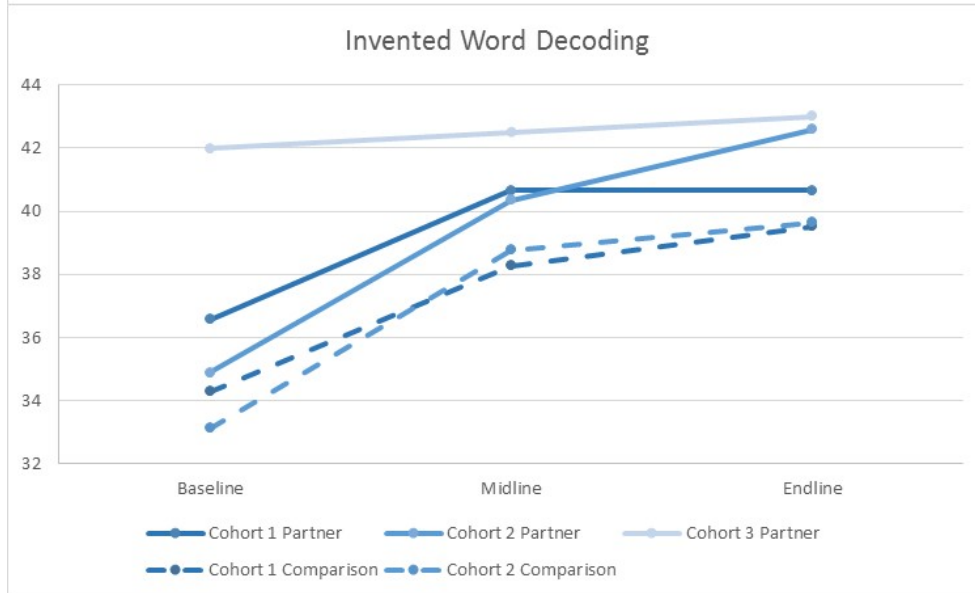
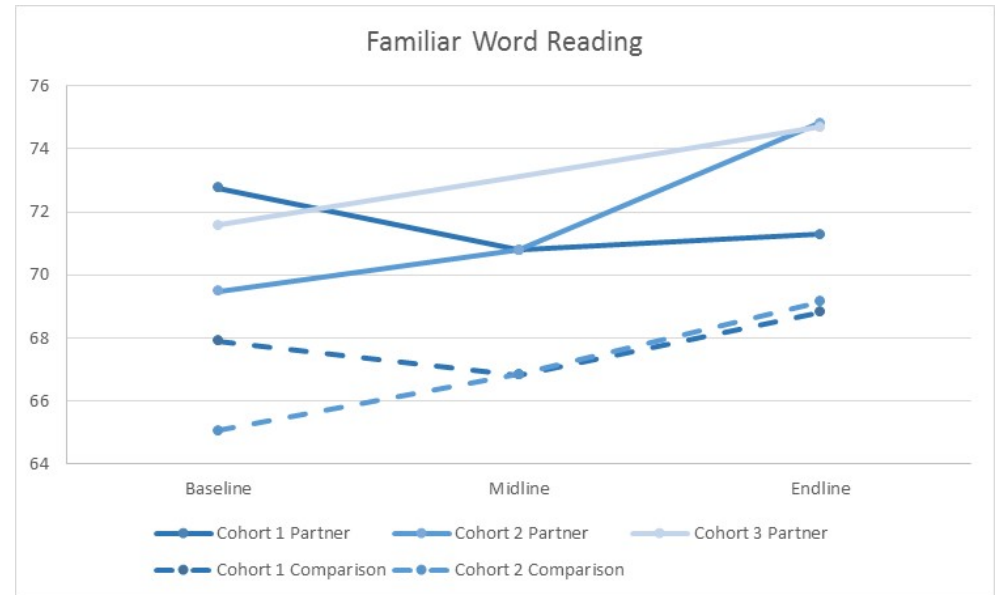
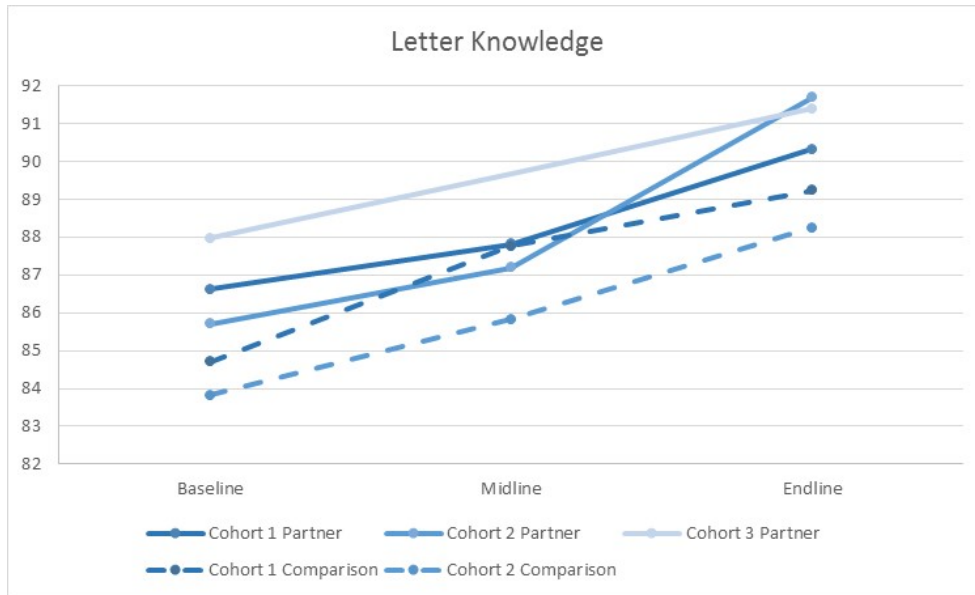
¹ Impact for Cohort 3 is from a simulated control group composed of schools and students from Cohorts 1 and 2.

Table K.6. Cohort 3 Zero Scores

Subtask	Group	Baseline	Endline	D-in-D ¹	p-value	D-in-D Effect Size
		% Zero Scores (SE)				
Letter-Name Knowledge (CLPM)	Comparison			0.006	0.02	0.12
	Partner	0% (0)	0% (0) ⁺			
Familiar Word Reading (CWPM)	Comparison			-0.02	0.03	-0.14
	Partner	1.2% (0.32)	1.7% (0.5) ⁺			
Invented Word Decoding (CIWPM)	Comparison			-0.04	< 0.01	-0.23
	Partner	2.3% (0.47)	2.2% (0.57) ⁺			
Oral Reading Fluency (ORF)	Comparison			0.02	0.04	0.14
	Partner	1.6% (0.45)	1.7% (0.51) ⁺			
Reading Comprehension (5)	Comparison			-0.005	0.68	-0.03
	Partner	0.4% (0.14)	3.1% (0.6) ⁺			
Listening Comprehension (3)	Comparison			0.1	< 0.01	0.45
	Partner	1.2% (0.39)	0.3% (0.08) ⁺			

¹ Impact for Cohort 3 is from a simulated control group composed of schools and students from Cohorts 1 and 2.

Figure K.1. Mean Trends Graphs by Subtask



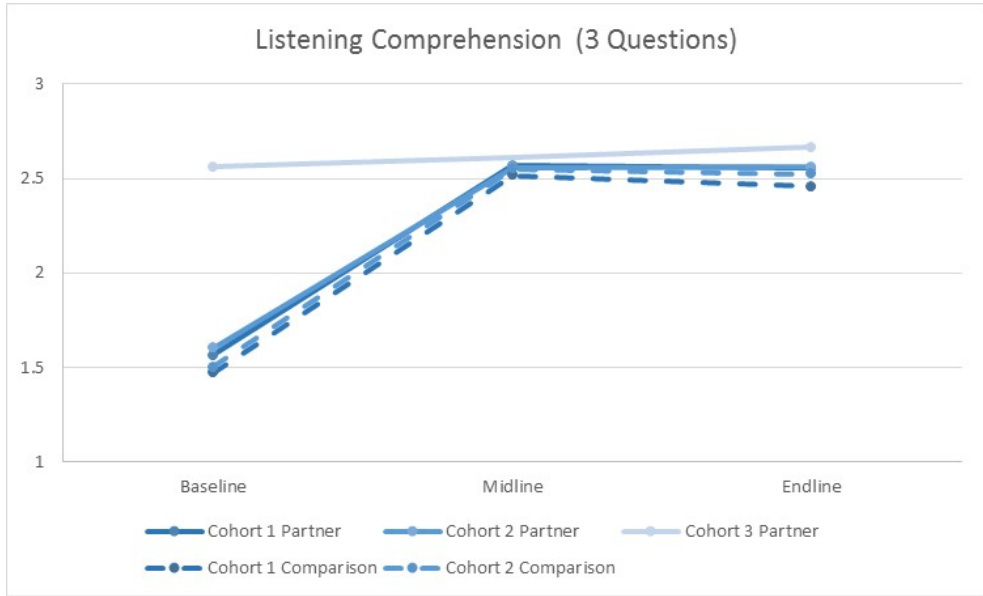
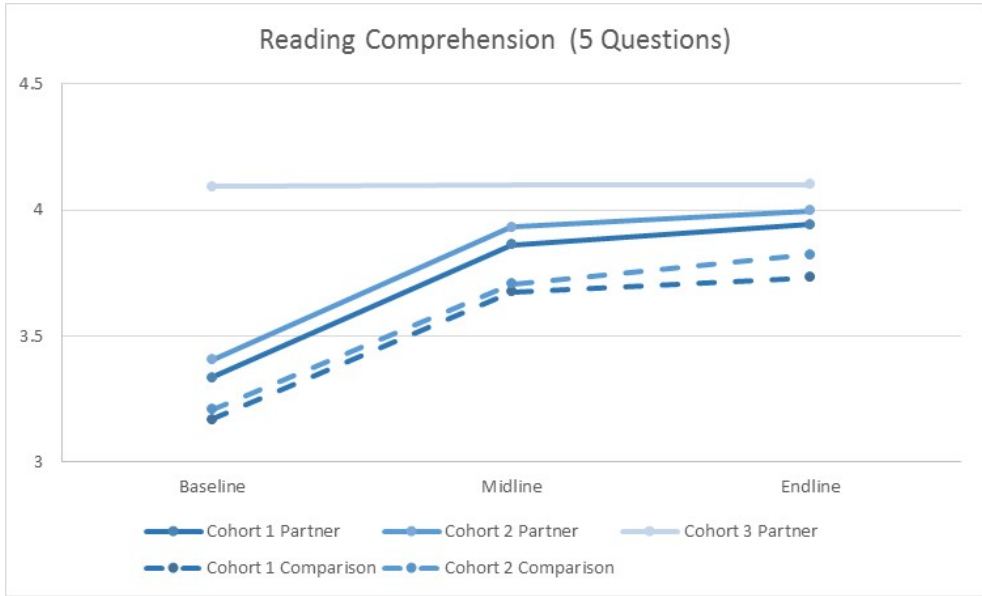
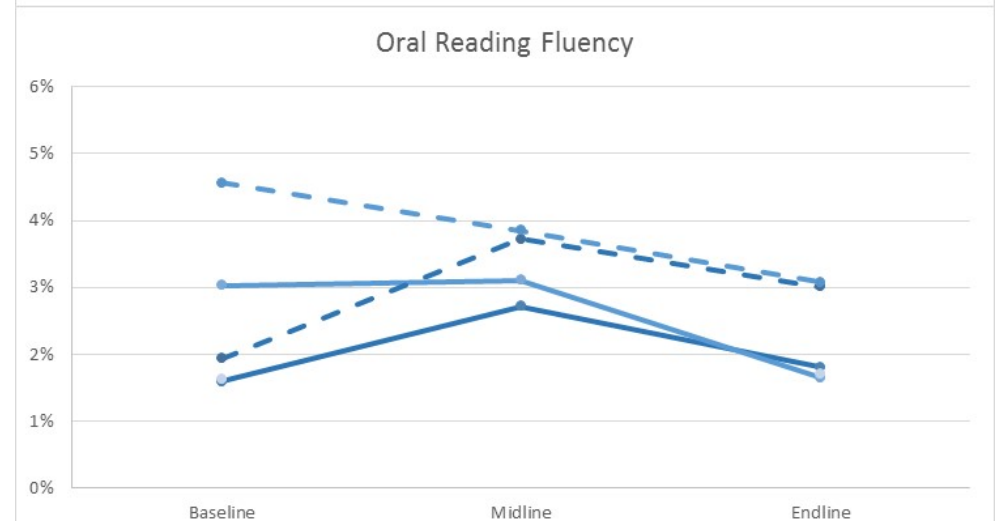
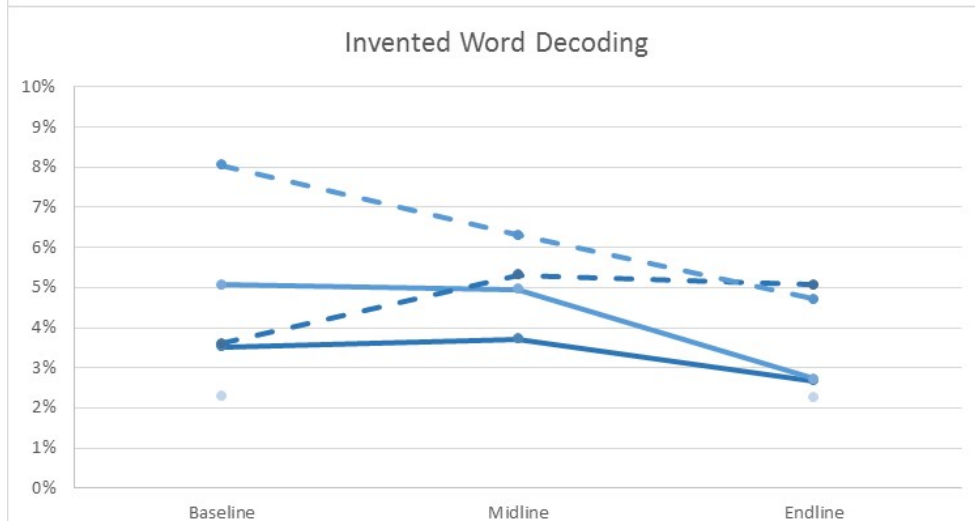
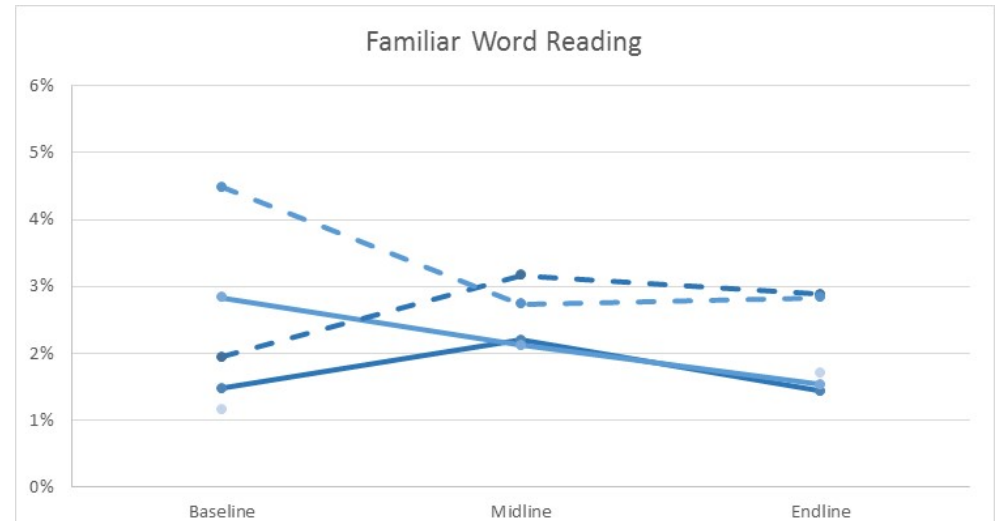
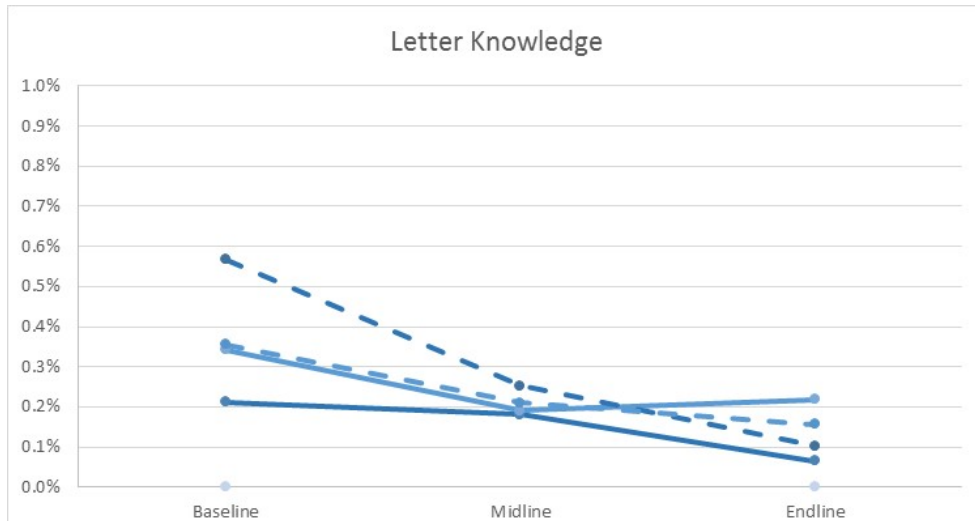


Figure K.2. Zero Score Graphs by Subtask



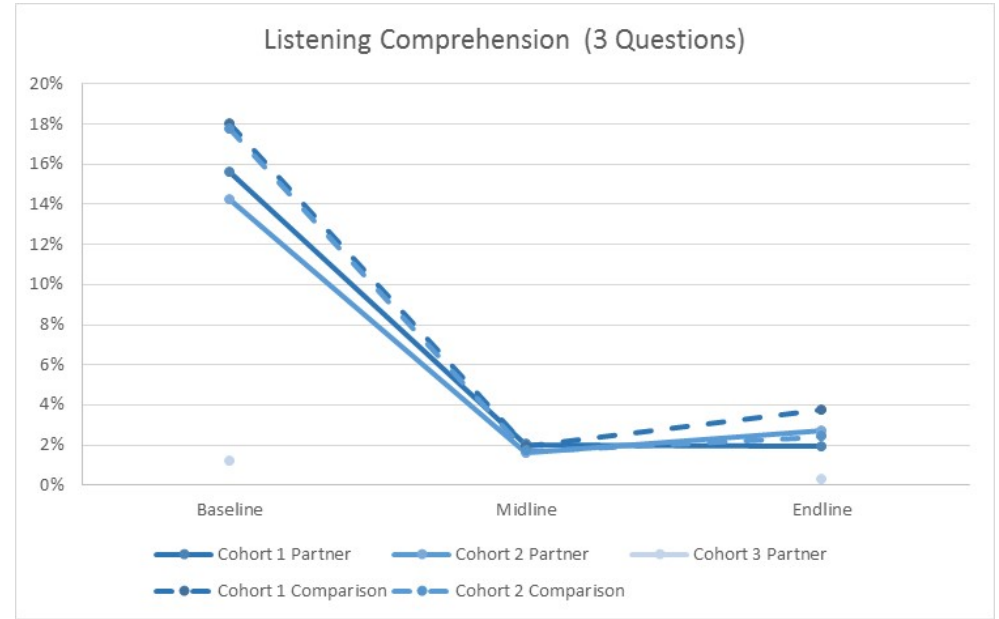
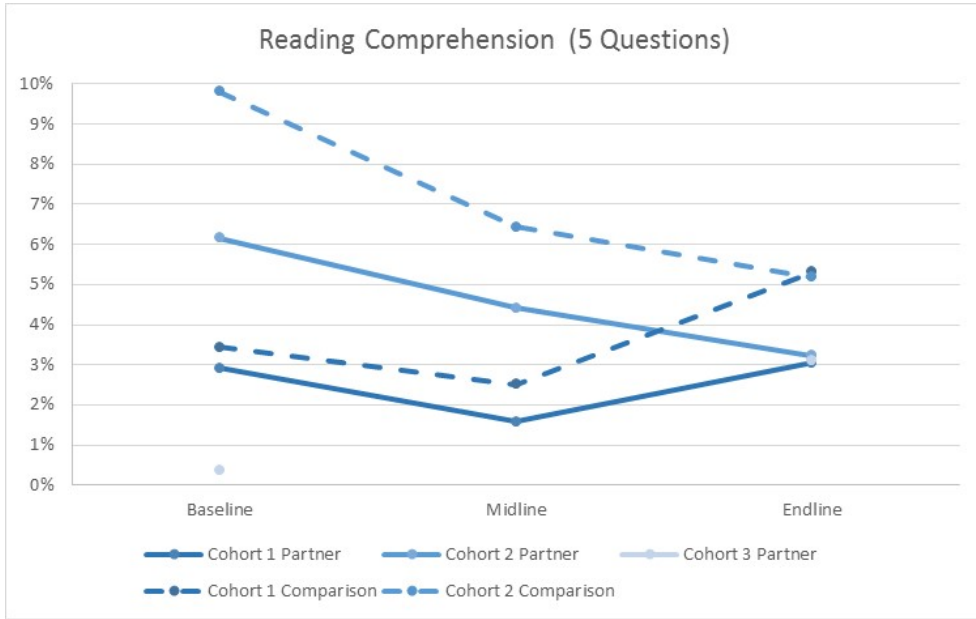


Table K.7. Overall Summary Statistics by Province

	Subtask	Aceh	North Sumatra	Banten	West Java	Central Java	East Java	South Sulawesi
Letter-Name Knowledge (CLPM)								
Baseline	Comparison	69.6	79.44	84.87	90.36	93.5	91.98	77.01
	Partner	73.16 ⁺	82.8 ⁺	87.03	92.65	91.98	93.11	81.35 ⁺
Endline	Comparison	78.61 ⁺	80.76	86.92	93.65 ⁺	93.1	101.09 ⁺	81.79 ⁺
	Partner	81.69	86.53 ⁺⁺	92.98 ⁺⁺	96.61	94.16	98.4 ⁺⁺	83.5
DID	Estimate	-0.49	2.41	3.9	0.67	2.58	-3.81 [#]	-2.64
	Effect Size	-0.02	0.12	0.17	0.03	0.1	-0.16	-0.11
Familiar Word Reading (CWPM)								
Baseline	Comparison	45.94	62.56	65.43	76.44	73.95	79.17	56.76
	Partner	55.9 ⁺	70.67 ⁺	70.59 ⁺	80.6 ⁺	70.95 ⁺	78.54	63.28 ⁺
Endline	Comparison	58.72 ⁺	61.01	65.32	76.33	71.18 ⁺	82.91 ⁺	61.21 ⁺
	Partner	64.14 ⁺⁺	70.45 ⁺⁺	70.02 ⁺⁺	81.55 ⁺⁺	72.31	80.9	65.36 ⁺⁺
DID	Estimate	-4.54	1.32	-0.46	1.06	4.13 [#]	-1.38	-2.36
	Effect Size	-0.15	0.05	-0.02	0.04	0.16	-0.05	-0.08
Invented Word Decoding (CIWPM)								
Baseline	Comparison	21.58	29.34	32.69	39.5	37.29	43.11	29.18
	Partner	27.32 ⁺	35.04 ⁺	36.46 ⁺	41.39	34.72 ⁺	43.93	32.37 ⁺
Endline	Comparison	31.19 ⁺	35.03 ⁺	38.93 ⁺	44.66 ⁺	39.37 ⁺	49.48 ⁺	34.39 ⁺
	Partner	35.67 ⁺⁺	39.76 ⁺⁺	41.53	47.49 ⁺⁺	40.99 ⁺⁺	46.23 ⁺⁺	36.4 ⁺⁺
D-in-D	Estimate	-1.26	-0.96	-1.17	0.94	4.2 [#]	-4.07 [#]	-1.18
	Effect Size	-0.07	-0.06	-0.07	0.06	0.25	-0.23	-0.06
Oral Reading Fluency (ORF)								
Baseline	Comparison	46.62	59.74	65.44	77.51	75	85.19	56.66
	Partner	59.07 ⁺	68.12 ⁺	73.48 ⁺	83.84 ⁺	72.5 ⁺	79.16 ⁺	63.52 ⁺
Endline	Comparison	59.68 ⁺	63.66 ⁺	67.8	79.91	74.8	89.76 ⁺	61.5 ⁺
	Partner	67.56 ⁺⁺	72.1 ⁺⁺	73.92 ⁺⁺	86.91 ⁺⁺	76.75	82.19 ⁺⁺	63.73
DID	Estimate	-4.56	0.06	-1.92	0.68	4.45 [#]	-1.54	-4.62 [#]
	Effect Size	-0.15	0	-0.07	0.03	0.16	-0.05	-0.15
Reading Comprehension (5)								
Baseline	Comparison	2.44	2.75	3.16	3.56	3.65	3.71	2.85
	Partner	2.98 ⁺	3.26 ⁺	3.35	3.75 ⁺	3.72	3.94 ⁺	3.14 ⁺
Endline	Comparison	3.36 ⁺	3.47 ⁺	3.55 ⁺	4.06 ⁺	4.09 ⁺	4.29 ⁺	3.38 ⁺
	Partner	3.61 ⁺⁺	3.87 ⁺⁺	3.94 ⁺⁺	4.25 ⁺⁺	4.18	4.29	3.52
DID	Estimate	-0.3	-0.1	0.2	0.01	0.03	-0.24 [#]	-0.14
	Effect Size	-0.18	-0.08	0.15	0.01	0.03	-0.2	-0.09
Listening Comprehension (3)								
Baseline	Comparison	1.24	1.26	1.43	1.62	1.54	1.8	1.44
	Partner	1.55 ⁺	1.68 ⁺	1.59 ⁺	1.69	1.55	2.12 ⁺	1.67 ⁺
Endline	Comparison	2.46 ⁺	2.21 ⁺	2.54 ⁺	2.5 ⁺	2.53 ⁺	2.68 ⁺	2.45 ⁺
	Partner	2.56	2.46 ⁺⁺	2.64	2.56	2.6 ⁺⁺	2.73	2.5
DID	Estimate	-0.21 [#]	-0.17 [#]	-0.06	-0.02	0.06	-0.27 [#]	-0.19 [#]
	Effect Size	-0.22	-0.2	-0.08	-0.02	0.07	-0.35	-0.19
80% or Better on Reading Comprehension								
Baseline	Comparison	32.62%	29.86%	45.87%	60.76%	60.47%	63.48%	38.04%
	Partner	45.11% ⁺	47.76% ⁺	55.52% ⁺	66.1%	60.33%	68.53% ⁺	47.02% ⁺
Endline	Comparison	57.97% ⁺	61.02% ⁺	61.73% ⁺	74.04% ⁺	77.18% ⁺	85.26% ⁺	54.95% ⁺
	Partner	63.57%	71.07% ⁺⁺	70.56% ⁺⁺	81.47% ⁺⁺	79.21%	83.58%	61.33% ⁺⁺
DID	Estimate	-0.07	-0.08	-0.01	0.02	0.02	-0.07 [#]	-0.03
	Effect Size	-0.14	-0.18	-0.02	0.05	0.04	-0.15	-0.05

Table K.8. Overall Zero Scores by Province

	Subtask	Aceh	North Sumatra	Banten	West Java	Central Java	East Java	South Sulawesi
Letter Name Knowledge (CLPM)								
Baseline	Comparison	0.83%	1.51%	0.82%	0%	0%	0.25%	0.1%
	Partner	0.41%	0.4%	0% ⁺	0.29%	0.16%	0.15%	0.11%
Endline	Comparison	0.57%	0.27% ⁺	0% ⁺	0% ⁺	0.16%	0% ⁺	0% ⁺
	Partner	0.6%	0% ⁺⁺	0% ⁺⁺	0% ⁺⁺	0%	0.29%	0% ⁺⁺
DID	Estimate	0.004	0.01	0.01 [#]	-0.003	-0.003	0.004	-0.0001 [#]
	Effect Size	0.06	0.13	0.19	-0.11	-0.1	0.09	-0.004
Familiar Word Reading (CWPM)								
Baseline	Comparison	7.19%	2.16%	3.38%	1.93%	0%	0.9%	7.97%
	Partner	5.93%	1.39%	1.44%	1.5%	0% ⁺	0.82%	4.33% ⁺
Endline	Comparison	5.78%	5.87% ⁺	4.07%	1.02% ⁺	0.58%	0.96%	3.41% ⁺
	Partner	3.17% ⁺⁺	2.22% ⁺⁺	0.7% ⁺⁺	0.44% ⁺⁺	0.26%	0.82%	3.24%
DID	Estimate	-0.01	-0.03 [#]	-0.01	-0.002	-0.003 [#]	-0.001	0.03 [#]
	Effect Size	-0.06	-0.19	-0.1	-0.01	-0.06	-0.01	0.16
Invented Word Decoding (CIWPM)								
Baseline	Comparison	16.49%	5.6%	5.74%	3.88%	0.48%	1.42%	9.21%
	Partner	10.66% ⁺	3.69%	3.29%	2.91%	0.95%	2.04%	6.37% ⁺
Endline	Comparison	8.7% ⁺	9.38% ⁺	5.19%	1.94% ⁺	1.8% ⁺	2.19%	7.53%
	Partner	5.46% ⁺⁺	3.24% ⁺⁺	2.22% ⁺⁺	1.07%	0.73%	1.49%	5.13% ⁺⁺
DID	Estimate	0.03	-0.04 [#]	-0.01	0.001	-0.02 [#]	-0.01	0.004
	Effect Size	0.08	-0.21	-0.03	0.01	-0.14	-0.1	0.02
Oral Reading Fluency (ORF)								
Baseline	Comparison	4.94%	1.41%	2.35%	1.5%	0%	0.79%	6.48%
	Partner	5.38%	1.11%	1.8%	1.32%	0% ⁺	1.07%	3.36% ⁺
Endline	Comparison	6.18%	6.73% ⁺	4%	1.05%	0.6% ⁺	1.13%	3.5% ⁺
	Partner	3.67% ⁺⁺	2.77% ⁺⁺	1.29% ⁺⁺	0.66%	0.42%	0.83%	2.53%
DID	Estimate	-0.03	-0.04 [#]	-0.02	-0.002	-0.002 [#]	-0.01	0.02
	Effect Size	-0.13	-0.24	-0.15	-0.02	-0.03	-0.06	0.1
Reading Comprehension (5)								
Baseline	Comparison	18.04%	6.52%	6.62%	3.48%	0.26%	1.7%	12.46%
	Partner	13.42%	2.84% ⁺	3.69%	2.55%	0.28%	0.78%	7.57% ⁺
Endline	Comparison	10.44% ⁺	9.42%	6.61%	2.32%	1.46% ⁺	1.98%	7.08% ⁺
	Partner	7.01% ⁺⁺	4.57% ⁺⁺	2.36% ⁺⁺	1.06% ⁺⁺	0.42% ⁺⁺	1.05%	6.46%
DID	Estimate	0.01	-0.01	-0.01	-0.003	-0.01 [#]	-0.0002	0.04 [#]
	Effect Size	0.04	-0.06	-0.07	-0.02	-0.12	-0.002	0.15
Listening Comprehension (3)								
Baseline	Comparison	30.68%	24.87%	19.58%	13.52%	10.6%	7.7%	21.44%
	Partner	21.91% ⁺	15.47% ⁺	13.27% ⁺	9.61% ⁺	9.75%	6.8%	16.28% ⁺
Endline	Comparison	4.01% ⁺	6.48% ⁺	2.05% ⁺	2.52% ⁺	2.33% ⁺	1.28% ⁺	3.57% ⁺
	Partner	3.79%	1.97% ⁺⁺	1.01%	2.01%	0.93%	0.54%	4.63%
DID	Estimate	0.09 [#]	0.05	0.05	0.03	-0.01	0.002	0.06 [#]
	Effect Size	0.25	0.18	0.21	0.14	-0.02	0.01	0.19

Table K.9. Cohort 1 Summary Statistics by Province

	Subtask	Aceh	North Sumatra	Banten	West Java	Central Java	East Java	South Sulawesi
Letter Name Knowledge (CLPM)								
Baseline	Comparison	68.7	79.13	75.21	91.16	91.61	92.17	78.68
	Partner	72.89	84.57 ⁺	84.16 ⁺	92.23	90.48	92.35	81.21
Endline	Comparison	80.29 [†]	81.44	75.73	96.17 [†]	91.65	98.46 [†]	84.17 [†]
	Partner	85.86 ⁺⁺	87.45 ⁺⁺	90.26 ⁺⁺	94.7	90.44	98.35	81.9
DID	Estimate	1.38	0.57	5.58	-2.54	-0.08	-0.29	-4.8
	Effect Size	0.05	0.03	0.19	-0.12	-0.003	-0.01	-0.2
Familiar Word Reading (CWPM)								
Baseline	Comparison	47.51	65.1	48.85	78.31	73.85	76.99	62.58
	Partner	54.94 ⁺	74.73 ⁺	67.71 ⁺	82.62 ⁺	73.59	76.26	66.59 ⁺
Endline	Comparison	55.36 [†]	60.34	45.28	78.59	70.57 [†]	80.62 [†]	67.34 [†]
	Partner	69.59 ⁺⁺	71.87 ⁺⁺	61.87 ⁺⁺	77.38	70.29	77.16 ⁺⁺	61.67 ⁺⁺
DID	Estimate	6.8 [#]	1.91	-2.26	-5.52	-0.02	-2.74	-9.68 [#]
	Effect Size	0.22	0.08	-0.08	-0.23	-0.001	-0.1	-0.34
Invented Word Decoding (CIWPM)								
Baseline	Comparison	23.4	31.08	24.19	38.94	36.52	41.44	32.76
	Partner	27.27 ⁺	36.13 ⁺	35.22 ⁺	41.12	35.61	40.17	34.84
Endline	Comparison	29.08 [†]	34.75 [†]	28.15 [†]	46.17 [†]	38.8 [†]	47.39 [†]	38.49 [†]
	Partner	38.14 ⁺⁺	40.77 ⁺⁺	35.85 ⁺⁺	44.49	40.7 ⁺⁺	44.03 ⁺⁺	34.87 ⁺⁺
DID	Estimate	5.19 [#]	0.97	-3.34	-3.86 [#]	2.81 [#]	-2.08	-5.69 [#]
	Effect Size	0.29	0.07	-0.2	-0.25	0.18	-0.11	-0.33
Oral Reading Fluency (ORF)								
Baseline	Comparison	43.86	59.88	44.21	74.12	72.04	77.01	60.14
	Partner	53.55 ⁺	70.38 ⁺	65.2 ⁺	81.84 ⁺	72.11	76.07	63.87
Endline	Comparison	53.86 [†]	61.72	45.93	81.16 [†]	73.06	84.15 [†]	67.33 [†]
	Partner	70.56 ⁺⁺	75.07 ⁺⁺	62.65 ⁺⁺	83.1	75.25	81.03	59.74 ⁺⁺
DID	Estimate	7.01 [#]	2.84	-4.27	-5.78	2.13	-2.17	-11.32 [#]
	Effect Size	0.23	0.12	-0.15	-0.22	0.08	-0.07	-0.4
Reading Comprehension (5)								
Baseline	Comparison	2.8	2.71	2.49	3.61	3.57	3.5	2.94
	Partner	3.11 ⁺	2.94	3.01 ⁺	3.89 ⁺	3.68 ⁺	3.62	3.14
Endline	Comparison	3.3 [†]	3.28 [†]	2.47	4.19 [†]	4.04 [†]	4.1 [†]	3.61 [†]
	Partner	3.85 ⁺⁺	3.83 ⁺⁺	3.53 ⁺⁺	4.21	4.19 ⁺⁺	4.15	3.48
DID	Estimate	0.25	0.32	0.55 [#]	-0.26 [#]	0.05	-0.07	-0.33 [#]
	Effect Size	0.16	0.26	0.36	-0.24	0.04	-0.05	-0.23
Listening Comprehension (3)								
Baseline	Comparison	1.48	1.16	1.24	1.68	1.52	1.68	1.49
	Partner	1.89 ⁺	1.29	1.43	1.83 ⁺	1.52	1.67	1.72 ⁺
Endline	Comparison	2.54 [†]	2.08 [†]	2.34 [†]	2.55 [†]	2.52 [†]	2.61 [†]	2.47 [†]
	Partner	2.7 ⁺⁺	2.34 ⁺⁺	2.57 ⁺⁺	2.59	2.65 ⁺⁺	2.67	2.6 ⁺⁺
DID	Estimate	-0.24 [#]	0.13	0.05	-0.12	0.13 [#]	0.07	-0.09
	Effect Size	-0.25	0.17	0.06	-0.16	0.15	0.08	-0.11
80% or Better on Reading Comprehension								
Baseline	Comparison	36.55%	22.79%	25.15%	60.38%	56.88%	57.52%	34.48%
	Partner	45.84% ⁺	36.98% ⁺	42.25% ⁺	71.84% ⁺	59.3%	58.33%	42.26%
Endline	Comparison	50.66% [†]	55.85% [†]	32.27%	79.07% [†]	75.23% [†]	80.88% [†]	59.29% [†]
	Partner	67.78% ⁺⁺	70.96% ⁺⁺	59.18% ⁺⁺	81.53%	79.46%	78.98%	58.99%
DID	Estimate	0.08	0.01	0.1	-0.09	0.02	-0.03	-0.08
	Effect Size	0.15	0.02	0.21	-0.21	0.04	-0.05	-0.16

Table K.10. Cohort 1 Zero Scores by Province

	Subtask	Aceh	North Sumatra	Banten	West Java	Central Java	East Java	South Sulawesi
Letter Name Knowledge (CLPM)								
Baseline	Comparison	0%	1.63%	1.96%	0%	0%	0.25%	0.24%
	Partner	0% ⁺	0.26%	0% ⁺	0.4%	0% ⁺	0.39%	0.23%
Endline	Comparison	0.57%	0.43%	0% ⁺	0% ⁺	0% ⁺	0%	0% ⁺
	Partner	0.32%	0% ⁺	0% ⁺	0% ⁺	0% ⁺	0.28%	0% ⁺
DID	Estimate	-0.003 [#]	0.01	0.02 [#]	-0.004 [#]		0.001	0.0001 [#]
	Effect Size	-0.05	0.14	0.28	-0.13		0.03	0.003
Familiar Word Reading (CWPM)								
Baseline	Comparison	5.77%	1.59%	6.71%	2.06%	0%	1.33%	1.06%
	Partner	4.91%	1.27%	1.97% ⁺	1.12%	0% ⁺	1.08%	2.65% ⁺
Endline	Comparison	3.42%	7.33% ⁺	11.17%	0.37% ⁺	0.81%	1.4%	1.06%
	Partner	2.39%	1.42% ⁺	1.86% ⁺	1.03% ⁺	0.4%	0.94%	3.31% ⁺
DID	Estimate	-0.002	-0.06 [#]	-0.05	0.02	-0.004 [#]	-0.002	0.01
	Effect Size	-0.01	-0.38	-0.2	0.15	-0.07	-0.02	0.05
Invented Word Decoding (CIWPM)								
Baseline	Comparison	11.71%	4.44%	9.36%	2.82%	0.7%	1.53%	2.9%
	Partner	10.14%	5%	2.05% ⁺	2.88%	1.15%	1.84%	4.79%
Endline	Comparison	6.08% ⁺	11.34% ⁺	14.86%	1.15%	2.08%	3.42%	3.57%
	Partner	4.01%	2.89% ⁺	3.62% ⁺	1.76%	0.79%	1.78%	5.97%
DID	Estimate	-0.01	-0.09 [#]	-0.04	0.01	-0.02	-0.02	0.01
	Effect Size	-0.02	-0.44	-0.15	0.04	-0.15	-0.12	0.02
Oral Reading Fluency (ORF)								
Baseline	Comparison	5.52%	0.95%	4.88%	1.11%	0%	1.15%	0.83%
	Partner	4.91%	0.49%	1.08% ⁺	1.48%	0% ⁺	1.3%	2.25%
Endline	Comparison	5.07%	8.01% ⁺	10.95% ⁺	0.19%	0.5%	1.67%	0.92%
	Partner	2.39%	2.54% ⁺	2.1% ⁺	1.37% ⁺	0.64%	1%	2.97% ⁺
DID	Estimate	-0.02	-0.05 [#]	-0.05	0.01	0.001 [#]	-0.01	0.01
	Effect Size	-0.09	-0.33	-0.23	0.08	0.02	-0.07	0.05
Reading Comprehension (5)								
Baseline	Comparison	7.7%	2.66%	12.6%	2.36%	0.17%	2.66%	3.14%
	Partner	6.93%	3.96%	4.07% ⁺	1.48%	0.17%	1.84%	4.44%
Endline	Comparison	7.24%	11.92% ⁺	17.13%	2.06%	1.52% ⁺	3.08%	2.85%
	Partner	3.03% ⁺	4.5% ⁺	3.74% ⁺	2.12%	0.64%	1.25% ⁺	6.53% ⁺
DID	Estimate	-0.03	-0.09 [#]	-0.05	0.01	-0.01	-0.01	0.02
	Effect Size	-0.13	-0.44	-0.16	0.07	-0.1	-0.06	0.11
Listening Comprehension (3)								
Baseline	Comparison	22.42%	27.44%	31.17%	10.38%	12.4%	11.04%	19.68%
	Partner	13.5% ⁺	24.35%	18.85% ⁺	6.79%	11.97%	14.34%	12.26% ⁺
Endline	Comparison	2.04% ⁺	9.28% ⁺	3.56% ⁺	2.73% ⁺	2.98% ⁺	2.1% ⁺	3.29% ⁺
	Partner	1.47%	3.12% ⁺	1.48%	1.7%	0.89% ⁺	0.82%	3.25%
DID	Estimate	0.08 [#]	-0.03	0.1 [#]	0.03	-0.02	-0.05 [#]	0.07 [#]
	Effect Size	0.27	-0.1	0.32	0.11	-0.06	-0.17	0.26

Table K.11. Cohort 2 Summary Statistics by Province

	Subtask	Aceh	North Sumatra	Banten	West Java	Central Java	East Java	South Sulawesi
Letter Name Knowledge (CLPM)								
Baseline	Comparison	69.84	80.02	91.8	89.95	97.61	91.69	75.75
	Partner	73.24	80.9	89.22	92.87	95.15	94.95	81.48 ⁺
Endline	Comparison	78.1 [*]	79.63	91.81	91.77	96.79	105.15 [*]	79.97 [*]
	Partner	79.99	89.59 ⁺⁺	94.64	98.02 ⁺⁺	101.4 ⁺⁺	100.75	84.63 ⁺⁺
DID	Estimate	-1.52	9.08 [#]	5.41	3.32	7.06 [#]	-7.66 [#]	-1.07
	Effect Size	-0.06	0.42	0.29	0.16	0.28	-0.34	-0.04
Familiar Word Reading (CWPM)								
Baseline	Comparison	45.51	57.82	77.32	75.47	74.18	82.47	52.41
	Partner	56.19 ⁺	71.53 ⁺	72.81	79.53	65.39 ⁺	84.49	60.17 ⁺
Endline	Comparison	59.74 [*]	62.14	74.05	74.65	72.73	86.45	56.53
	Partner	61.92	76.54 ⁺⁺	74.98	84.64 ⁺⁺	76.23	82.8	67.99 ⁺⁺
DID	Estimate	-8.5 [#]	0.69	5.44	5.94	12.29 [#]	-5.66	3.71
	Effect Size	-0.29	0.03	0.24	0.24	0.47	-0.24	0.11
Invented Word Decoding (CIWPM)								
Baseline	Comparison	21.09	26.08	38.79	39.79	38.98	45.64	26.49
	Partner	27.34 ⁺	32.21 ⁺	37.41	41.53	32.83 ⁺	44.72	30.04 ⁺
Endline	Comparison	31.83 [*]	35.49 [*]	43.63 [*]	43.54 [*]	40.8	52.73 [*]	31.26 [*]
	Partner	34.66	41.82 ⁺⁺	44.99	49.71 ⁺⁺	41.56	46.73 ⁺⁺	37.48 ⁺⁺
DID	Estimate	-3.42	0.2	2.74	4.43 [#]	6.91 [#]	-5.08	2.68
	Effect Size	-0.2	0.01	0.19	0.28	0.39	-0.31	0.14
Oral Reading Fluency (ORF)								
Baseline	Comparison	47.37	59.48	80.66	79.26	81.45	97.72	54.06
	Partner	60.7 ⁺	75.88 ⁺	79.83	84.91 ⁺	73.33 ⁺	91.65 ⁺	63.2 ⁺
Endline	Comparison	61.45 [*]	66.87 [*]	77.33	78.97	79.21	98.46	57.04
	Partner	66.34	81.84 ⁺⁺	80.77	89.74 ⁺⁺	79.65	89.39 ⁺⁺	66.57 ⁺⁺
DID	Estimate	-8.45 [#]	-1.43	4.27	5.12	8.56 [#]	-3.01	0.4
	Effect Size	-0.27	-0.05	0.17	0.18	0.29	-0.11	0.01
Reading Comprehension (5)								
Baseline	Comparison	2.34	2.83	3.65	3.54	3.85	4.03	2.78
	Partner	2.95 ⁺	3.23 ⁺	3.62	3.67	3.81	3.78 ⁺	3.14 ⁺
Endline	Comparison	3.38 [*]	3.77 [*]	4.02 [*]	3.96 [*]	4.21 [*]	4.59 [*]	3.2 [*]
	Partner	3.51	4.14 ⁺⁺	4.19	4.28 ⁺⁺	4.17	4.37 ⁺⁺	3.55 ⁺⁺
DID	Estimate	-0.47 [#]	-0.03	0.2	0.19	-0.01	0.04	-0.001
	Effect Size	-0.28	-0.02	0.18	0.16	-0.01	0.04	-0.001
Listening Comprehension (3)								
Baseline	Comparison	1.18	1.46	1.56	1.58	1.58	1.98	1.4
	Partner	1.44 ⁺	1.53	1.71	1.62	1.63	1.78 ⁺	1.62 ⁺
Endline	Comparison	2.44 [*]	2.43 [*]	2.63 [*]	2.47 [*]	2.55 [*]	2.79 [*]	2.44 [*]
	Partner	2.5	2.62 ⁺⁺	2.68	2.55	2.52	2.77	2.42
DID	Estimate	-0.21	0.12	-0.1	0.04	-0.08	0.18	-0.24 [#]
	Effect Size	-0.22	0.15	-0.16	0.05	-0.09	0.3	-0.23
80% or Better on Reading Comprehension								
Baseline	Comparison	31.57%	43.11%	60.74%	60.95%	68.31%	72.48%	40.7%
	Partner	44.89% ⁺	45.72%	65.69%	63.05%	62.52%	59.89% ⁺	51.49% ⁺
Endline	Comparison	60.21% [*]	69.59% [*]	74.57% [*]	70.3% [*]	82.16% [*]	92.04% [*]	51.63% [*]
	Partner	61.86%	76.94%	77.48%	81.42% ⁺⁺	78.74%	85.33%	63% ⁺⁺
DID	Estimate	-0.12	0.05	-0.02	0.09	0.02	0.06	0.01
	Effect Size	-0.24	0.1	-0.05	0.2	0.05	0.15	0.01

Table K.12. Cohort 2 Zero Scores by Province

	Subtask	Aceh	North Sumatra	Banten	West Java	Central Java	East Java	South Sulawesi
Letter Name Knowledge (CLPM)								
Baseline	Comparison	1.05%	1.3%	0%	0%	0%	0.25%	0%
	Partner	0.54%	1.14%	0% ⁺	0.24%	0.49%	0% ⁺	0% ⁺
Endline	Comparison	0.57%	0%	0% ⁺	0% ⁺	0.55%	0% ⁺	0% ⁺
	Partner	0.71%	0% ⁺⁺	0% ⁺⁺	0% ⁺⁺	0%	1.02%	0% ⁺⁺
DID	Estimate	0.01	0.002		-0.002 [#]	-0.01	0.01	
	Effect Size	0.08	0.02		-0.1	-0.18	0.22	
Familiar Word Reading (CWPM)								
Baseline	Comparison	7.57%	3.23%	0.99%	1.87%	0%	0.25%	13.13%
	Partner	6.24%	0.9%	1.04%	1.71%	0% ⁺	1.01%	5.91% ⁺
Endline	Comparison	6.49%	3.45%	0.97%	1.52%	0% ⁺	0.29%	5.2% ⁺
	Partner	3.48% ⁺⁺	3.12%	0%	0% ⁺⁺	0% ⁺⁺	0.27%	3.2% ⁺⁺
DID	Estimate	-0.02	0.02	-0.01	-0.01		-0.01	0.05 [#]
	Effect Size	-0.07	0.12	-0.14	-0.12		-0.11	0.19
Invented Word Decoding (CIWPM)								
Baseline	Comparison	17.77%	7.78%	3.14%	4.43%	0%	1.26%	13.93%
	Partner	10.81% ⁺	3.21% ⁺	4.24%	2.93%	0.52%	1.3%	7.86% ⁺
Endline	Comparison	9.5% ⁺	6.14%	0.97%	2.53% ⁺	1.11%	0.29%	10.55%
	Partner	6.06% ⁺⁺	3.05%	1.37%	0.55% ⁺⁺	0.6%	2.03%	4.53% ⁺⁺
DID	Estimate	0.04	0.01	-0.01	-0.005	-0.01	0.02	0.0005
	Effect Size	0.11	0.07	-0.05	-0.03	-0.12	0.15	0.001
Oral Reading Fluency (ORF)								
Baseline	Comparison	4.79%	2.28%	0.53%	1.7%	0%	0.25%	10.7%
	Partner	5.52%	0.9%	2.35%	1.23%	0% ⁺	0.42%	4.4% ⁺
Endline	Comparison	6.51%	4.61%	0.97%	1.69%	0.87% ⁺	0.29%	5.48% ⁺
	Partner	4.19%	3.12%	0.8%	0.14% ⁺⁺	0% ⁺⁺	0.27%	2.23% ⁺⁺
DID	Estimate	-0.03	-0.001	-0.02	-0.01	-0.01 [#]	-0.002	0.03
	Effect Size	-0.14	-0.01	-0.21	-0.1	-0.15	-0.03	0.12
Reading Comprehension (5)								
Baseline	Comparison	20.81%	13.75%	2.33%	4.07%	0.45%	0.25%	19.43%
	Partner	15.34%	3.01% ⁺	3.39%	3.12%	0.52%	0.42%	10.5% ⁺
Endline	Comparison	11.41% ⁺	5.27% ⁺	2.03%	2.51%	1.31%	0.29%	10.3% ⁺
	Partner	8.63%	3.12%	1.52%	0.28% ⁺⁺	0% ⁺⁺	0.27%	6.4% ⁺⁺
DID	Estimate	0.03	0.09 [#]	-0.02	-0.01	-0.01 [#]	-0.002	0.05
	Effect Size	0.08	0.36	-0.12	-0.08	-0.15	-0.03	0.14
Listening Comprehension (3)								
Baseline	Comparison	32.9%	20.05%	11.25%	15.13%	6.68%	2.66%	22.76%
	Partner	24.39% ⁺	14.48%	8.99%	11.1%	5.05%	6.01%	20.06%
Endline	Comparison	4.61% ⁺	1.85% ⁺	1.39% ⁺	2.37% ⁺	0.67% ⁺	0%	3.79% ⁺
	Partner	4.74%	1.36%	0.73%	2.25%	1.01%	1.08% ⁺⁺	5.61%
DID	Estimate	0.09	0.05	0.02	0.04	0.02	-0.02	0.05
	Effect Size	0.24	0.19	0.08	0.15	0.1	-0.15	0.13

Table K.13. Cohort 3 Summary Statistics by Province¹

	Subtask	North Sumatra	East Java
Letter-Name Knowledge (CLPM)			
Baseline	Comparison	75.99	92.89
	Partner	81.55 ⁺	92.96
Endline	Comparison	75.38	100.73 ⁺
	Partner	82.31 ⁺⁺	97.48
DID	Estimate	1.37	-3.32
	Effect Size	0.06	-0.14
Familiar Word Reading (CWPM)			
Baseline	Comparison	58.45	79.28
	Partner	63.45	77.93
Endline	Comparison	52.46	81.2
	Partner	62.77 ⁺⁺	82.67
DID	Estimate	5.31	2.82
	Effect Size	0.19	0.11
Invented Word Decoding (CIWPM)			
Baseline	Comparison	27.84	42.58
	Partner	35.66 ⁺	46.91 ⁺
Endline	Comparison	29.22	47.26 ⁺
	Partner	36.28 ⁺⁺	47.52
DID	Estimate	-0.76	-4.07 [#]
	Effect Size	-0.05	-0.24
Oral Reading Fluency (ORF)			
Baseline	Comparison	47.32	76.33
	Partner	57.95 ⁺	76.37
Endline	Comparison	50.69	81.97 ⁺
	Partner	58.64	80.05
DID	Estimate	-2.68	-1.97
	Effect Size	-0.11	-0.07
Reading Comprehension (5)			
Baseline	Comparison	2.45	3.61
	Partner	3.81 ⁺	4.31 ⁺
Endline	Comparison	2.73	4.21 ⁺
	Partner	3.72 ⁺⁺	4.36
DID	Estimate	-0.38	-0.55 [#]
	Effect Size	-0.26	-0.5
Listening Comprehension (3)			
Baseline	Comparison	1.08	1.72
	Partner	2.43 ⁺	2.66 ⁺
Endline	Comparison	1.98 ⁺	2.67 ⁺
	Partner	2.53 ⁺⁺	2.76 ⁺⁺
DID	Estimate	-0.8 [#]	-0.85 [#]
	Effect Size	-0.96	-1.23
80% or Better on Reading Comprehension			
Baseline	Comparison	21.36%	60.42%
	Partner	67.17% ⁺	81.55% ⁺
Endline	Comparison	43.03% ⁺	84% ⁺
	Partner	66.26% ⁺⁺	86.01%
DID	Estimate	-0.23 [#]	-0.19 [#]
	Effect Size	-0.49	-0.46

¹ Impact for Cohort 3 is from a simulated comparison group composed of schools and students from Cohorts 1 and 2.

Table K.14. Cohort 3 Zero Scores by Province¹

	Subtask	North Sumatra	East Java
Letter-Name Knowledge (CLPM)			
Baseline	Comparison	1.97%	0.38%
	Partner	0%	0% ⁺
Endline	Comparison	0.72%	0% [*]
	Partner	0% ⁺⁺	0% ⁺⁺
DID	Estimate	0.01	0.004 [#]
	Effect Size	0.17	0.11
Familiar Word Reading (CWPM)			
Baseline	Comparison	3.28%	1.21%
	Partner	2%	0.52%
Endline	Comparison	13.46% [*]	0.58%
	Partner	2.84% ⁺⁺	0.95%
DID	Estimate	-0.09 [#]	0.01
	Effect Size	-0.44	0.11
Invented Word Decoding (CIWPM)			
Baseline	Comparison	6.23%	1.83%
	Partner	2% ⁺	2.55%
Endline	Comparison	19.33% [*]	2.27%
	Partner	4% ⁺⁺	1.08%
DID	Estimate	-0.11 [#]	-0.02
	Effect Size	-0.45	-0.14
Oral Reading Fluency (ORF)			
Baseline	Comparison	2.71%	1.05%
	Partner	2.26%	1.14%
Endline	Comparison	0% [*]	0%
	Partner	2.86% ⁺⁺	0.95%
DID	Estimate	0.03	0.009
	Effect Size	0.22	0.09
Reading Comprehension (5)			
Baseline	Comparison	8.58%	1.87%
	Partner	0.87% ⁺	0% ⁺
Endline	Comparison	18.74% [*]	1.97%
	Partner	5.95% ⁺⁺	1.23%
DID	Estimate	-0.05	0.01
	Effect Size	-0.2	0.09
Listening Comprehension (3)			
Baseline	Comparison	34.03%	9.34%
	Partner	2.09% ⁺	0.46% ⁺
Endline	Comparison	13.98% [*]	1.47% [*]
	Partner	0.5% ⁺⁺	0.12% ⁺⁺
DID	Estimate	0.18 [#]	0.08 [#]
	Effect Size	0.67	0.42

¹ Impact for Cohort 3 is from a simulated comparison group composed of schools and students from Cohorts 1 and 2.

Subtask Statistics by Demographic Trait and Cohort

Note the following for the tables presented in this section of Annex K.

Impact for Cohort 3 is from a simulated comparison group composed of schools and students from Cohorts 1 and 2; C = Cohort; SE = Standard Error.

Table K.15. Mean and Zero Scores by Demographic Trait for Letter-Name Knowledge (CLPM), Overall

Demographic	Demographic Level	Sampled Group	Mean (SE)			% Zero Scores (SE)		
			Baseline	Midline – C1 & C2 Only	Endline	Baseline	Midline – C1 & C2 Only	Endline
Gender	Male	Comparison	82.9 (0.4)	84.6 (0.47)	86 (0.46)	0.6% (0.17)	0.4% (0.1)	0.2% (0.07)
		Partner	85.5 (0.4)	86 (0.4)	89.3 (0.41)	0.3% (0.08)	0.3% (0.1)	0.1% (0.06)
	Female	Comparison	85.7 (0.4)	89 (0.42)	91.5 (0.44)	0.3% (0.07)	0.1% (0.02)	0.1% (0.03)
		Partner	87.5 (0.39)	89.2 (0.48)	93 (0.45)	0.2% (0.06)	0.1% (0.01)	0.1% (0.07)
School Location	Urban	Comparison	88.6 (0.45)	90.3 (0.53)	92.9 (0.53)	0.5% (0.17)	0.1% (0.06)	0.1% (0.02)
		Partner	87.9 (0.42)	88.9 (0.45)	93 (0.43)	0.2% (0.07)	0.1% (0.03)	0.2% (0.07)
	Rural	Comparison	80.9 (0.36)	83.4 (0.35)	84.9 (0.38)	0.4% (0.1)	0.4% (0.09)	0.2% (0.07)
		Partner	84.3 (0.33)	85.2 (0.37)	88.2 (0.4)	0.3% (0.09)	0.4% (0.13)	0.1% (0.03)
School Type	Public	Comparison	83.4 (0.32)	86.1 (0.36)	88.1 (0.36)	0.4% (0.11)	0.2% (0.05)	0.2% (0.05)
		Partner	86 (0.32)	87.1 (0.35)	90.9 (0.34)	0.3% (0.06)	0.2% (0.06)	0.1% (0.05)
	Private	Comparison	88.4 (0.62)	89.8 (0.64)	91.6 (0.72)	0.5% (0.15)	0.2% (0.16)	0% (0)
		Partner	88.7 (0.6)	89.5 (0.67)	91.7 (0.69)	0% (0)	0% (0)	0.1% (0.06)
School Faith	Secular	Comparison	83.9 (0.32)	86.7 (0.37)	88.1 (0.37)	0.5% (0.12)	0.2% (0.04)	0.2% (0.05)
		Partner	87.1 (0.33)	88.5 (0.33)	92.1 (0.35)	0.3% (0.07)	0.2% (0.06)	0.1% (0.06)
	Madrasah/Islamic	Comparison	85.3 (0.58)	87.1 (0.59)	90.8 (0.64)	0.4% (0.11)	0.3% (0.18)	0% (0)
		Partner	84.3 (0.56)	84.8 (0.73)	88.4 (0.6)	0.1% (0.02)	0.1% (0.12)	0.1% (0.04)
Home Language	Indonesian	Comparison	85.1 (0.43)	87.3 (0.49)	88.2 (0.46)	0.4% (0.15)	0.1% (0.03)	0% (0)
		Partner	86.4 (0.41)	88.4 (0.41)	91.2 (0.41)	0.2% (0.07)	0.1% (0.05)	0.1% (0.04)
	Other	Comparison	83.3 (0.42)	86.1 (0.39)	89.5 (0.45)	0.5% (0.1)	0.4% (0.11)	0.3% (0.09)
		Partner	86.5 (0.39)	85.9 (0.5)	90.8 (0.47)	0.3% (0.08)	0.3% (0.11)	0.2% (0.11)
Have Books at Home	Yes	Comparison	85.6 (0.36)	88.1 (0.42)	91.8 (0.45)	0.4% (0.09)	0.2% (0.07)	0.1% (0.04)
		Partner	87.7 (0.35)	88.3 (0.4)	93.6 (0.4)	0.1% (0.03)	0.2% (0.06)	0.1% (0.07)
	No	Comparison	81.5 (0.55)	84.7 (0.47)	85.3 (0.48)	0.6% (0.22)	0.3% (0.08)	0.2% (0.07)
		Partner	83.6 (0.5)	86.1 (0.54)	87.5 (0.49)	0.6% (0.15)	0.2% (0.1)	0.1% (0.06)
Attend Pre-school	Yes	Comparison	85.7 (0.32)	88.3 (0.35)	90.3 (0.35)	0.4% (0.1)	0.2% (0.06)	0.1% (0.04)
		Partner	88 (0.3)	88.4 (0.33)	91.9 (0.32)	0.1% (0.02)	0.2% (0.06)	0.1% (0.05)
	No	Comparison	77.2 (0.8)	77.1 (0.78)	76.8 (0.91)	0.9% (0.26)	0.4% (0.1)	0.1% (0)
		Partner	77.8 (0.82)	80.7 (1.05)	81.5 (0.93)	1% (0.32)	0.4% (0.14)	0% (0)
Parents Read to Student	Yes	Comparison	82.3 (0.41)	84.1 (0.5)	86.7 (0.47)	0.4% (0.13)	0.3% (0.09)	0.1% (0.02)
		Partner	85.3 (0.41)	85.8 (0.49)	89.5 (0.46)	0.1% (0.03)	0.3% (0.11)	0.2% (0.09)
	No	Comparison	86.6 (0.44)	89.2 (0.43)	90.6 (0.47)	0.6% (0.13)	0.2% (0.06)	0.2% (0.07)
		Partner	87.8 (0.41)	88.9 (0.44)	92.3 (0.42)	0.4% (0.11)	0.1% (0.03)	0.1% (0.04)

Table K.16. Mean Scores by Demographic Trait for Letter-Name Knowledge (CLPM), Cohort

Subtask	Sampled Group		Mean (SE)							
			2012	2013	2014		2015	2016		
			Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Gender	Male	Comparison	82.8 (0.52)	83 (0.6)		84.9 (0.53)	84.4 (0.76)	85.7 (0.6)	86.4 (0.69)	
		Partner	86.1 (0.59)	84.5 (0.67)	86.4 (0.9)	86.4 (0.54)	85.5 (0.6)	88.5 (0.56)	90.1 (0.67)	89.3 (1.07)
	Female	Comparison	86.8 (0.49)	84.7 (0.61)		90.7 (0.5)	87.3 (0.67)	92.9 (0.54)	90.1 (0.69)	
		Partner	87.2 (0.56)	87 (0.65)	89.5 (0.98)	89.3 (0.69)	89 (0.67)	92.3 (0.59)	93.5 (0.79)	93.5 (1.14)
School Location	Urban	Comparison	89.6 (0.51)	87.6 (0.74)		90.5 (0.52)	90.1 (0.93)	92.8 (0.61)	93.1 (0.88)	
		Partner	89.3 (0.61)	85.9 (0.67)	90.4 (0.98)	90 (0.62)	87.7 (0.64)	92.5 (0.58)	92.9 (0.74)	95.2 (1.06)
	Rural	Comparison	80.5 (0.51)	81.3 (0.52)		84.9 (0.51)	82 (0.49)	85.6 (0.53)	84.5 (0.53)	
		Partner	82.8 (0.46)	85.4 (0.55)	85.7 (0.9)	83.8 (0.47)	86.5 (0.57)	86.8 (0.5)	89.8 (0.65)	87.8 (1.14)
School Type	Public	Comparison	84.9 (0.41)	82 (0.48)		87.9 (0.4)	84.5 (0.58)	89.2 (0.45)	87.2 (0.54)	
		Partner	86.5 (0.45)	84.7 (0.52)	88.5 (0.75)	87.5 (0.49)	86.7 (0.5)	90.3 (0.45)	91.2 (0.57)	92.2 (0.88)
	Private	Comparison	83.7 (0.74)	93 (1)		87 (0.85)	92.8 (0.97)	89.4 (0.91)	93.9 (1.11)	
		Partner	87.2 (0.82)	91.4 (1.02)	87.1 (1.28)	89.5 (0.87)	89.6 (1.02)	90.4 (0.92)	94.2 (1.21)	90.3 (1.42)
School Faith	Secular	Comparison	85.4 (0.41)	82.4 (0.5)		88.2 (0.4)	85.1 (0.62)	89.1 (0.47)	87.1 (0.57)	
		Partner	87.5 (0.48)	86.4 (0.54)	88.5 (0.7)	87.9 (0.47)	89 (0.47)	91.3 (0.46)	92.8 (0.6)	92.2 (0.84)
	Madrasah/Islamic	Comparison	82.1 (0.71)	87.7 (0.86)		86 (0.83)	88 (0.83)	89.7 (0.8)	91.7 (0.94)	
		Partner	83.9 (0.75)	83.6 (0.95)	86.8 (1.51)	87.5 (0.98)	81.5 (1.09)	87.9 (0.81)	88.4 (1.02)	89.9 (1.6)
Home Language	Indonesian	Comparison	83.3 (0.54)	86.5 (0.64)		87.6 (0.54)	87 (0.78)	87.7 (0.61)	88.5 (0.68)	
		Partner	87.3 (0.63)	85.9 (0.68)	85.5 (0.81)	87.6 (0.63)	89.2 (0.54)	90.2 (0.58)	92.7 (0.67)	89.5 (1.06)
	Other	Comparison	86 (0.53)	80.7 (0.66)		88 (0.51)	84.1 (0.59)	91.1 (0.57)	87.8 (0.7)	
		Partner	85.7 (0.47)	85.5 (0.68)	93 (1.2)	88.2 (0.54)	83.4 (0.86)	90.5 (0.55)	89.9 (0.86)	94.3 (1.27)
Have Books at Home	Yes	Comparison	85.4 (0.41)	85.9 (0.63)		88.7 (0.46)	87.4 (0.72)	92.5 (0.6)	91.2 (0.67)	
		Partner	87.5 (0.47)	87.5 (0.67)	89.2 (0.8)	88.3 (0.55)	88.3 (0.59)	92.3 (0.55)	94.2 (0.66)	95.4 (1.08)
	No	Comparison	82.3 (0.85)	81.1 (0.7)		86 (0.65)	83.8 (0.67)	85.7 (0.6)	84.9 (0.73)	
		Partner	82.9 (0.81)	83.4 (0.68)	85.3 (1.28)	86.9 (0.74)	85.5 (0.77)	87.8 (0.63)	87.9 (0.88)	85.8 (1.12)
Attend Pre-school	Yes	Comparison	85.4 (0.39)	86 (0.49)		89.3 (0.39)	87.4 (0.57)	91.1 (0.43)	89.6 (0.53)	
		Partner	88.2 (0.44)	87.2 (0.51)	89.2 (0.71)	89 (0.47)	87.8 (0.46)	91.4 (0.43)	92.2 (0.54)	92.7 (0.83)
	No	Comparison	81.3 (1.11)	73.9 (1.12)		79.1 (1.02)	74.7 (1.22)	76.6 (1.33)	76.9 (1.23)	
		Partner	78.7 (1.17)	77 (1.33)	76 (1.75)	79.7 (1.25)	81.8 (1.77)	80.3 (1.24)	84.9 (1.67)	76.8 (1.82)
Parents Read to Student	Yes	Comparison	83.8 (0.53)	81.2 (0.6)		86.2 (0.54)	82.1 (0.85)	87.6 (0.61)	86 (0.71)	
		Partner	86.2 (0.61)	83.8 (0.64)	87.4 (0.95)	86.9 (0.66)	84.4 (0.72)	88.7 (0.62)	90.7 (0.75)	88.1 (1.34)
	No	Comparison	85.6 (0.55)	87.7 (0.71)		89.3 (0.53)	89.1 (0.66)	90.6 (0.6)	90.5 (0.72)	
		Partner	87 (0.56)	88.3 (0.7)	88.5 (0.98)	88.7 (0.61)	89.1 (0.62)	91.7 (0.56)	92.5 (0.74)	93.7 (1.04)

Table K.17. Zero Scores by Demographic Trait for Letter-Name Knowledge (CLPM), Cohort

Subtask			% Zero Scores (SE)									
			2012		2013		2014		2015		2016	
			Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3		
Gender	Male	Comparison	0.7% (0.21)	0.5% (0.25)		0.5% (0.17)	0.3% (0.12)	0.1% (0.03)	0.2% (0.13)			
		Partner	0.2% (0.05)	0.5% (0.19)	0% (0)	0.3% (0.15)	0.3% (0.13)	0.1% (0.05)	0.2% (0.13)	0% (0)		
	Female	Comparison	0.4% (0.12)	0.2% (0.09)		0% (0)	0.1% (0.05)	0.1% (0.04)	0.1% (0.05)			
		Partner	0.2% (0.13)	0.2% (0.08)	0% (0)	0% (0)	0.1% (0.02)	0% (0)	0.2% (0.16)	0% (0)		
School Location	Urban	Comparison	0.4% (0.15)	0.5% (0.31)		0.2% (0.11)	0% (0)	0.1% (0.03)	0.1% (0.04)			
		Partner	0.1% (0.05)	0.3% (0.14)	0% (0)	0.1% (0.04)	0.1% (0.03)	0% (0)	0.4% (0.17)	0% (0)		
	Rural	Comparison	0.7% (0.19)	0.2% (0.1)		0.3% (0.13)	0.4% (0.12)	0.1% (0.04)	0.2% (0.12)			
		Partner	0.4% (0.14)	0.4% (0.16)	0% (0)	0.4% (0.2)	0.3% (0.16)	0.2% (0.07)	0% (0)	0% (0)		
School Type	Public	Comparison	0.5% (0.14)	0.4% (0.16)		0.2% (0.08)	0.3% (0.08)	0.1% (0.03)	0.2% (0.08)			
		Partner	0.2% (0.08)	0.4% (0.12)	0% (0)	0.2% (0.09)	0.2% (0.08)	0% (0)	0.3% (0.12)	0% (0)		
	Private	Comparison	1% (0.3)	0% (0)		0.4% (0.32)	0% (0)	0% (0)	0% (0)			
		Partner	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0.3% (0.18)	0% (0)	0% (0)		
School Faith	Secular	Comparison	0.5% (0.14)	0.5% (0.19)		0.2% (0.08)	0.2% (0.04)	0.1% (0.03)	0.2% (0.09)			
		Partner	0.2% (0.08)	0.4% (0.14)	0% (0)	0.3% (0.11)	0.2% (0.03)	0% (0)	0.3% (0.14)	0% (0)		
	Madrasah/Islamic	Comparison	0.8% (0.26)	0% (0)		0.4% (0.27)	0.3% (0.23)	0% (0)	0% (0)			
		Partner	0.1% (0.06)	0.2% (0)	0% (0)	0% (0)	0.3% (0.26)	0.2% (0.09)	0% (0)	0% (0)		
Home Language	Indonesian	Comparison	0.5% (0.18)	0.4% (0.24)		0.1% (0.05)	0.1% (0.03)	0% (0)	0% (0)			
		Partner	0.1% (0.03)	0.3% (0.16)	0% (0)	0.1% (0.04)	0.2% (0.1)	0% (0)	0.1% (0.08)	0% (0)		
	Other	Comparison	0.6% (0.17)	0.4% (0.11)		0.4% (0.17)	0.4% (0.15)	0.2% (0.05)	0.4% (0.18)			
		Partner	0.4% (0.15)	0.4% (0.12)	0% (0)	0.4% (0.2)	0.3% (0.06)	0.1% (0.07)	0.4% (0.26)	0% (0)		
Have Books at Home	Yes	Comparison	0.6% (0.15)	0.2% (0.07)		0.1% (0.09)	0.3% (0.11)	0.1% (0.03)	0.1% (0.06)			
		Partner	0.1% (0.04)	0.2% (0.08)	0% (0)	0.2% (0.11)	0.1% (0.03)	0% (0)	0.3% (0.15)	0% (0)		
	No	Comparison	0.4% (0.2)	0.6% (0.3)		0.5% (0.18)	0.1% (0.03)	0.1% (0.03)	0.2% (0.13)			
		Partner	0.9% (0.31)	0.6% (0.21)	0% (0)	0.1% (0.08)	0.3% (0.17)	0.1% (0.06)	0.2% (0.13)	0% (0)		
Attend Pre-school	Yes	Comparison	0.4% (0.11)	0.3% (0.16)		0.2% (0.09)	0.2% (0.07)	0.1% (0.03)	0.2% (0.08)			
		Partner	0.2% (0.05)	0.1% (0.03)	0% (0)	0.1% (0.08)	0.2% (0.08)	0.1% (0.03)	0.2% (0.11)	0% (0)		
	No	Comparison	1.3% (0.47)	0.6% (0.27)		0.7% (0.18)	0% (0)	0.2% (0.01)	0% (0)			
		Partner	0.4% (0.29)	1.9% (0.69)	0% (0)	0.6% (0.25)	0.3% (0.09)	0% (0)	0% (0)	0% (0)		
Parents Read to Student	Yes	Comparison	0.3% (0.1)	0.4% (0.22)		0.1% (0.11)	0.5% (0.14)	0.2% (0.05)	0% (0)			
		Partner	0.1% (0.06)	0% (0)	0% (0)	0.3% (0.15)	0.4% (0.16)	0.1% (0.06)	0.3% (0.2)	0% (0)		
	No	Comparison	0.9% (0.23)	0.2% (0.11)		0.4% (0.13)	0% (0)	0.1% (0)	0.3% (0.14)			
		Partner	0.3% (0.12)	0.7% (0.24)	0% (0)	0.1% (0.05)	0.1% (0.03)	0% (0)	0.1% (0.1)	0% (0)		

Table K.18. Mean and Zero Scores by Demographic Trait for Familiar Word Reading (CWPM), Overall

Demographic	Demographic Level	Sampled Group	Mean (SE)			% Zero Scores (SE)		
			Baseline	Midline – C1 & C2 Only	Endline	Baseline	Midline – C1 & C2 Only	Endline
Gender	Male	Comparison	63 (0.43)	63.8 (0.54)	65.7 (0.52)	4.4% (0.33)	3.9% (0.26)	4% (0.29)
		Partner	68.7 (0.45)	68 (0.5)	70.2 (0.49)	2.7% (0.25)	2.7% (0.26)	2.1% (0.23)
	Female	Comparison	70.1 (0.46)	70.1 (0.46)	72.4 (0.5)	2.1% (0.26)	2% (0.23)	1.6% (0.21)
		Partner	73.9 (0.46)	73.8 (0.51)	76.7 (0.44)	1.3% (0.17)	1.5% (0.25)	0.8% (0.1)
School Location	Urban	Comparison	73.2 (0.5)	72.8 (0.58)	75.3 (0.58)	2% (0.32)	1.7% (0.2)	2% (0.23)
		Partner	75.3 (0.47)	74.4 (0.52)	76.4 (0.47)	1.1% (0.2)	1.2% (0.23)	1% (0.15)
	Rural	Comparison	61.3 (0.41)	61.1 (0.42)	63.4 (0.45)	4.3% (0.28)	4.1% (0.29)	3.6% (0.28)
		Partner	65.3 (0.4)	64.9 (0.43)	68.7 (0.44)	3.4% (0.24)	3.6% (0.3)	2.3% (0.22)
School Type	Public	Comparison	65 (0.35)	66.1 (0.4)	68.2 (0.41)	3.7% (0.25)	3.3% (0.21)	3.1% (0.21)
		Partner	71.4 (0.36)	70.6 (0.4)	73 (0.37)	2.1% (0.17)	2.2% (0.21)	1.5% (0.12)
	Private	Comparison	73.3 (0.69)	70.3 (0.75)	72.7 (0.74)	1.2% (0.24)	1.2% (0.26)	1.8% (0.37)
		Partner	70.5 (0.68)	72 (0.75)	74.4 (0.73)	1.5% (0.32)	1.8% (0.32)	1.7% (0.41)
School Faith	Secular	Comparison	66 (0.36)	66.7 (0.42)	68.2 (0.42)	3.7% (0.25)	3.2% (0.2)	3.2% (0.21)
		Partner	72.9 (0.37)	71.8 (0.4)	73.9 (0.38)	1.6% (0.16)	1.8% (0.15)	1.6% (0.15)
	Madrasah/Islamic	Comparison	67.9 (0.64)	67.2 (0.69)	71.7 (0.67)	1.9% (0.36)	2.1% (0.35)	1.7% (0.35)
		Partner	66 (0.65)	67.9 (0.79)	72 (0.66)	3.1% (0.4)	3.2% (0.55)	1.4% (0.23)
Home Language	Indonesian	Comparison	68.5 (0.51)	68.3 (0.55)	70.2 (0.52)	2.3% (0.24)	2.8% (0.24)	2.2% (0.21)
		Partner	72.8 (0.47)	73.6 (0.48)	74.7 (0.46)	1.2% (0.18)	1.4% (0.16)	1.4% (0.16)
	Other	Comparison	64.2 (0.5)	65 (0.49)	67.4 (0.52)	4.4% (0.39)	3.2% (0.27)	3.8% (0.33)
		Partner	68.9 (0.46)	65.6 (0.56)	71.1 (0.49)	3.2% (0.28)	3.5% (0.43)	1.8% (0.21)
Have Books at Home	Yes	Comparison	68.8 (0.43)	68.5 (0.5)	74.1 (0.51)	2.4% (0.22)	2.5% (0.21)	1.5% (0.16)
		Partner	73.4 (0.41)	72.2 (0.47)	77.1 (0.44)	1.4% (0.18)	2% (0.21)	0.7% (0.11)
	No	Comparison	61.6 (0.67)	64.2 (0.61)	63.2 (0.55)	5.1% (0.51)	3.7% (0.32)	4.4% (0.35)
		Partner	66.3 (0.59)	68.2 (0.64)	68 (0.54)	3.3% (0.31)	2.5% (0.34)	2.6% (0.27)
Attend Pre-school	Yes	Comparison	68.9 (0.35)	69.1 (0.4)	71.1 (0.39)	2.3% (0.22)	2.2% (0.17)	1.9% (0.18)
		Partner	73.4 (0.35)	72.5 (0.38)	74.6 (0.35)	1.2% (0.14)	1.4% (0.16)	1.1% (0.12)
	No	Comparison	54.6 (0.95)	52.8 (1.19)	53.5 (1.14)	8% (0.79)	7.8% (0.71)	9.7% (0.81)
		Partner	58.5 (0.94)	57.7 (1.14)	58.7 (1.23)	6.4% (0.7)	8% (0.98)	6.4% (0.78)
Parents Read to Student	Yes	Comparison	63 (0.5)	62.1 (0.6)	65.9 (0.57)	4.1% (0.32)	4.5% (0.32)	4% (0.31)
		Partner	68.5 (0.48)	67.8 (0.6)	70.1 (0.53)	2.4% (0.24)	2.9% (0.31)	1.9% (0.22)
	No	Comparison	70.7 (0.51)	71.2 (0.48)	71.9 (0.53)	2.2% (0.27)	1.5% (0.17)	1.8% (0.22)
		Partner	74.4 (0.48)	73.2 (0.49)	75.9 (0.46)	1.5% (0.19)	1.6% (0.22)	1.2% (0.15)

Table K.19. Mean Scores by Demographic Trait for Familiar Word Reading (CWPM), Cohort

Subtask	Sampled Group	Mean (SE)								
		2012	2013	2014		2015	2016			
		Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3	
Gender	Male	Comparison	63.7 (0.51)	62.3 (0.69)		62.7 (0.63)	64.8 (0.87)	64.5 (0.68)	66.9 (0.78)	
		Partner	70.4 (0.59)	66.6 (0.8)	69.4 (1.06)	67.4 (0.62)	68.6 (0.8)	67.9 (0.7)	72.1 (0.79)	70.9 (1.35)
	Female	Comparison	72.4 (0.56)	68 (0.71)		71.1 (0.56)	69.1 (0.72)	73.3 (0.62)	71.5 (0.78)	
		Partner	75.4 (0.61)	72.5 (0.81)	73.7 (1.05)	74.5 (0.76)	73.1 (0.7)	74.9 (0.62)	77.9 (0.72)	78.7 (1.15)
School Location	Urban	Comparison	74.3 (0.53)	72 (0.85)		72.2 (0.61)	73.5 (1)	74.8 (0.65)	75.8 (0.97)	
		Partner	78.3 (0.61)	72.1 (0.81)	76.1 (1.05)	75.8 (0.7)	72.9 (0.77)	74.6 (0.67)	77.6 (0.76)	78.9 (1.22)
	Rural	Comparison	62.4 (0.53)	60.4 (0.59)		61.3 (0.59)	60.9 (0.6)	62.7 (0.65)	63.9 (0.62)	
		Partner	64.8 (0.55)	65 (0.67)	67.2 (1.06)	61.8 (0.52)	67.6 (0.67)	65.9 (0.57)	70.5 (0.7)	70.7 (1.29)
School Type	Public	Comparison	67.6 (0.43)	62.6 (0.55)		67 (0.48)	65.3 (0.64)	68.9 (0.52)	67.6 (0.62)	
		Partner	73.4 (0.47)	69.4 (0.63)	70.7 (0.92)	71.1 (0.54)	70 (0.6)	71.5 (0.53)	74.7 (0.59)	72.9 (1.09)
	Private	Comparison	69.1 (0.76)	77.4 (1.14)		66.2 (0.89)	74.5 (1.22)	68.5 (0.98)	77 (1.12)	
		Partner	68.7 (0.91)	69.9 (1.34)	73 (1.27)	69 (1.02)	74.8 (1.11)	70.3 (0.96)	75.5 (1.28)	77.3 (1.48)
School Faith	Secular	Comparison	68.3 (0.44)	63.7 (0.57)		67.7 (0.48)	65.8 (0.67)	69 (0.54)	67.5 (0.65)	
		Partner	74 (0.5)	71.9 (0.64)	72.6 (0.82)	71 (0.54)	72.7 (0.58)	71.1 (0.55)	76.1 (0.62)	74.7 (0.98)
	Madrasah/Islamic	Comparison	66.6 (0.74)	68.9 (0.97)		63.7 (0.88)	70 (1.03)	68.2 (0.8)	74.3 (1.01)	
		Partner	68.9 (0.75)	61.6 (1.23)	69.2 (1.58)	70.4 (1.03)	64.9 (1.23)	71.7 (0.89)	71.1 (1.11)	74.6 (1.76)
Home Language	Indonesian	Comparison	67.6 (0.6)	69.3 (0.78)		66.2 (0.65)	70.1 (0.85)	69.3 (0.67)	70.8 (0.77)	
		Partner	75 (0.64)	71.7 (0.85)	70.1 (0.92)	72.7 (0.71)	74.5 (0.64)	72.8 (0.68)	77.1 (0.72)	72.6 (1.16)
	Other	Comparison	68.2 (0.55)	60.2 (0.83)		67.6 (0.62)	62.1 (0.79)	68.2 (0.68)	66.5 (0.79)	
		Partner	69.8 (0.56)	66.4 (0.8)	74.5 (1.31)	67.3 (0.62)	63.9 (0.94)	68.9 (0.62)	70.8 (0.84)	78 (1.44)
Have Books at Home	Yes	Comparison	69.5 (0.44)	68 (0.78)		68.5 (0.56)	68.6 (0.84)	73.7 (0.66)	74.6 (0.76)	
		Partner	74 (0.5)	72.1 (0.84)	74.4 (0.89)	72.6 (0.63)	71.8 (0.71)	74.6 (0.64)	78.3 (0.7)	80.2 (1.19)
	No	Comparison	62.5 (0.89)	61.2 (0.89)		63.8 (0.82)	64.5 (0.87)	63.6 (0.74)	62.9 (0.82)	
		Partner	67.5 (0.86)	66 (0.85)	65.5 (1.44)	67.2 (0.89)	69.2 (0.92)	66.9 (0.76)	69.5 (0.94)	67 (1.23)
Attend Pre-school	Yes	Comparison	69.7 (0.41)	68.2 (0.57)		69.1 (0.47)	69 (0.62)	71.2 (0.49)	71 (0.6)	
		Partner	75.1 (0.45)	71.9 (0.63)	73.2 (0.8)	73.2 (0.53)	71.9 (0.55)	73 (0.49)	75.6 (0.56)	76.6 (0.93)
	No	Comparison	58.8 (1.24)	51.1 (1.38)		54 (1.34)	51.4 (2.07)	53.2 (1.66)	53.9 (1.56)	
		Partner	61.6 (1.35)	55.4 (1.49)	56.2 (2.18)	54.6 (1.44)	61.5 (1.85)	55.4 (1.7)	65.4 (2.07)	53.4 (2.69)
Parents Read to Student	Yes	Comparison	65.1 (0.57)	61.4 (0.78)		63.2 (0.68)	61.1 (0.98)	65.7 (0.77)	66 (0.83)	
		Partner	71.1 (0.69)	65.6 (0.78)	70.2 (1.11)	68.8 (0.79)	66.6 (0.92)	67.8 (0.73)	72.5 (0.83)	69.3 (1.54)
	No	Comparison	70.9 (0.58)	70.5 (0.87)		70.4 (0.6)	71.8 (0.73)	71.5 (0.65)	72.3 (0.84)	
		Partner	74.6 (0.59)	74.7 (0.92)	72.9 (1.07)	72.7 (0.7)	73.7 (0.68)	74.1 (0.64)	76.8 (0.78)	78.4 (1.14)

Table K.20. Zero Scores by Demographic Trait for Familiar Word Reading (CWPM), Cohort

Subtask			% Zero Scores (SE)								
			Sampled Group	2012	2013	2014		2015		2016	
				Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Gender	Male	Comparison	2.7% (0.34)	5.9% (0.54)		4.4% (0.42)	3.4% (0.32)	4.3% (0.41)	3.8% (0.41)		
		Partner	1.9% (0.25)	3.9% (0.51)	1.6% (0.5)	2.7% (0.32)	2.8% (0.42)	1.9% (0.26)	2.2% (0.34)	2.7% (0.91)	
	Female	Comparison	1.2% (0.23)	3% (0.44)		1.9% (0.36)	2% (0.29)	1.4% (0.25)	1.9% (0.34)		
		Partner	1% (0.19)	1.7% (0.33)	0.7% (0.41)	1.6% (0.26)	1.4% (0.43)	1% (0.14)	0.8% (0.12)	0.6% (0.39)	
School Location	Urban	Comparison	1.4% (0.3)	2.6% (0.57)		2.3% (0.36)	1.1% (0.18)	1.9% (0.24)	2.2% (0.39)		
		Partner	0.5% (0.12)	1.9% (0.43)	0.2% (0.13)	1.3% (0.18)	1.2% (0.44)	0.8% (0.15)	1.1% (0.28)	1.2% (0.49)	
	Rural	Comparison	2.4% (0.28)	5.8% (0.45)		4.1% (0.43)	4.2% (0.38)	3.9% (0.43)	3.4% (0.37)		
		Partner	2.9% (0.35)	4.5% (0.39)	2.1% (0.62)	3.8% (0.49)	3.5% (0.36)	2.4% (0.31)	2.1% (0.17)	2.2% (0.86)	
School Type	Public	Comparison	2% (0.23)	5.3% (0.42)		3.5% (0.33)	3.1% (0.25)	3% (0.28)	3.1% (0.3)		
		Partner	1.4% (0.17)	3% (0.34)	1.4% (0.44)	2% (0.23)	2.4% (0.35)	1.4% (0.17)	1.5% (0.15)	1.7% (0.63)	
	Private	Comparison	1.9% (0.43)	0.5% (0.21)		1.6% (0.38)	0.8% (0.36)	2.2% (0.51)	1.3% (0.53)		
		Partner	1.9% (0.42)	1.8% (0.73)	0.8% (0.45)	3.1% (0.53)	0.6% (0.37)	1.6% (0.33)	1.8% (0.83)	1.7% (0.81)	
School Faith	Secular	Comparison	1.9% (0.23)	5.5% (0.44)		3.2% (0.32)	3.2% (0.26)	3.1% (0.28)	3.3% (0.31)		
		Partner	1.3% (0.19)	2.1% (0.28)	1.3% (0.4)	2% (0.25)	1.5% (0.16)	1.5% (0.19)	1.7% (0.24)	1.6% (0.53)	
	Madrasah/Islamic	Comparison	2.2% (0.46)	1.6% (0.53)		3.2% (0.59)	1.2% (0.4)	2.1% (0.46)	1.4% (0.51)		
		Partner	2.1% (0.27)	5.2% (0.93)	0.9% (0.54)	2.6% (0.39)	3.9% (1.11)	1.3% (0.23)	1.2% (0.19)	1.9% (1.04)	
Home Language	Indonesian	Comparison	1.6% (0.22)	2.9% (0.41)		3.5% (0.43)	2.2% (0.25)	2.4% (0.29)	2% (0.31)		
		Partner	0.9% (0.15)	1.6% (0.38)	0.9% (0.39)	1.8% (0.23)	1.1% (0.22)	1.2% (0.15)	1.3% (0.27)	1.9% (0.57)	
	Other	Comparison	2.3% (0.36)	6.3% (0.68)		2.8% (0.36)	3.5% (0.4)	3.5% (0.44)	4.2% (0.5)		
		Partner	2.2% (0.31)	4.6% (0.55)	1.7% (0.58)	3% (0.44)	4% (0.76)	1.8% (0.3)	1.9% (0.21)	1.5% (0.92)	
Have Books at Home	Yes	Comparison	1.5% (0.19)	3.4% (0.44)		2.7% (0.32)	2.2% (0.27)	1.4% (0.23)	1.7% (0.23)		
		Partner	1.1% (0.15)	2.3% (0.46)	0.7% (0.21)	2.4% (0.28)	1.5% (0.33)	0.8% (0.12)	0.7% (0.18)	0.6% (0.37)	
	No	Comparison	3.5% (0.67)	5.9% (0.68)		4% (0.54)	3.5% (0.38)	4.5% (0.46)	4.2% (0.52)		
		Partner	3.3% (0.58)	3.5% (0.39)	2.3% (0.92)	1.7% (0.29)	3.1% (0.58)	2.3% (0.31)	2.7% (0.4)	3.2% (1.07)	
Attend Pre-school	Yes	Comparison	1.6% (0.19)	2.9% (0.37)		2.3% (0.29)	2.1% (0.2)	1.4% (0.19)	2.4% (0.29)		
		Partner	0.8% (0.11)	1.9% (0.29)	0.6% (0.27)	1.2% (0.17)	1.6% (0.27)	1% (0.12)	1.1% (0.19)	1.2% (0.46)	
	No	Comparison	3.8% (0.8)	11.5% (1.28)		8.3% (0.94)	7.3% (1.06)	12.7% (1.4)	6.4% (0.66)		
		Partner	4.7% (0.78)	8.4% (1.32)	6.7% (2.15)	9.3% (1.23)	6.5% (1.59)	5.8% (1.13)	6.6% (0.83)	7.9% (3.05)	
Parents Read to Student	Yes	Comparison	2.1% (0.3)	5.7% (0.52)		4.9% (0.51)	4.1% (0.39)	4.1% (0.45)	4% (0.43)		
		Partner	1.5% (0.22)	3.4% (0.46)	2% (0.6)	3.1% (0.37)	2.5% (0.5)	1.9% (0.25)	2% (0.34)	2% (0.92)	
	No	Comparison	1.8% (0.29)	2.7% (0.47)		1.5% (0.25)	1.6% (0.24)	1.8% (0.27)	1.7% (0.34)		
		Partner	1.4% (0.24)	2.1% (0.39)	0.3% (0.25)	1.3% (0.23)	1.8% (0.37)	1.1% (0.18)	1.1% (0.21)	1.5% (0.57)	

Table K.21. Mean and Zero Scores by Demographic Trait for Invented Word Decoding (CIWPM), Overall

Demographic	Demographic Level	Sampled Group	Mean (SE)			% Zero Scores (SE)		
			Baseline	Midline – C1 & C2 Only	Endline	Baseline	Midline – C1 & C2 Only	Endline
Gender	Male	Comparison	31.6 (0.26)	36.2 (0.34)	37.2 (0.35)	7.2% (0.41)	7.4% (0.39)	6.6% (0.39)
		Partner	34.7 (0.27)	38 (0.33)	39.4 (0.32)	5% (0.35)	5.7% (0.45)	3.2% (0.27)
	Female	Comparison	35.9 (0.29)	40.9 (0.37)	42 (0.33)	4.6% (0.35)	4.2% (0.31)	3.1% (0.29)
		Partner	38.7 (0.3)	43.2 (0.33)	44.5 (0.3)	2.9% (0.26)	2.9% (0.31)	2% (0.19)
School Location	Urban	Comparison	37.9 (0.33)	42.8 (0.43)	43.7 (0.4)	4.3% (0.41)	4% (0.31)	3.4% (0.29)
		Partner	38.8 (0.3)	43 (0.34)	43.3 (0.32)	2.4% (0.28)	2.7% (0.36)	1.7% (0.2)
	Rural	Comparison	30.5 (0.23)	34.5 (0.27)	35.9 (0.29)	7.2% (0.36)	7.6% (0.39)	6.2% (0.38)
		Partner	33.6 (0.24)	36.5 (0.28)	39.7 (0.28)	6.3% (0.35)	7% (0.43)	4% (0.3)
School Type	Public	Comparison	32.7 (0.21)	37.6 (0.28)	38.7 (0.27)	6.7% (0.32)	6.4% (0.29)	5.4% (0.28)
		Partner	36.3 (0.23)	40.2 (0.26)	41.3 (0.25)	4.2% (0.25)	4.4% (0.32)	2.8% (0.18)
	Private	Comparison	38.2 (0.47)	43.1 (0.52)	43.7 (0.52)	2.5% (0.36)	3.3% (0.48)	2.5% (0.41)
		Partner	38.2 (0.42)	41.9 (0.53)	43.9 (0.5)	3.1% (0.42)	3.7% (0.52)	1.9% (0.4)
School Faith	Secular	Comparison	33.4 (0.22)	38.1 (0.29)	38.9 (0.28)	6.4% (0.31)	6.2% (0.29)	5.4% (0.28)
		Partner	37.2 (0.23)	40.7 (0.26)	41.8 (0.25)	3.5% (0.24)	3.7% (0.27)	2.7% (0.2)
	Madrasah/Islamic	Comparison	34.7 (0.42)	39.9 (0.47)	41.9 (0.45)	4.5% (0.53)	4.6% (0.51)	3% (0.44)
		Partner	35.1 (0.4)	40.1 (0.51)	41.9 (0.44)	5.5% (0.5)	6% (0.74)	2.5% (0.3)
Home Language	Indonesian	Comparison	34.6 (0.31)	39.4 (0.4)	40.3 (0.35)	5% (0.38)	5.3% (0.33)	3.8% (0.29)
		Partner	37.6 (0.29)	42.2 (0.31)	42.8 (0.31)	2.9% (0.29)	2.7% (0.25)	2.1% (0.21)
	Other	Comparison	32.7 (0.3)	37.5 (0.32)	38.5 (0.34)	7% (0.43)	6.5% (0.39)	6.3% (0.44)
		Partner	35.4 (0.28)	37.3 (0.37)	40.3 (0.3)	5.6% (0.36)	7.3% (0.65)	3.4% (0.28)
Have Books at Home	Yes	Comparison	35.1 (0.27)	40 (0.36)	42.8 (0.35)	4.6% (0.31)	5.1% (0.31)	2.7% (0.22)
		Partner	37.8 (0.26)	41.5 (0.32)	44.4 (0.3)	3.3% (0.27)	4% (0.35)	1.5% (0.15)
	No	Comparison	30.8 (0.37)	36.2 (0.38)	36 (0.35)	8.6% (0.59)	7% (0.46)	7.3% (0.46)
		Partner	34.3 (0.35)	38.7 (0.41)	38.2 (0.34)	5.6% (0.4)	4.9% (0.49)	4.3% (0.35)
Attend Pre-school	Yes	Comparison	35.1 (0.22)	39.9 (0.28)	40.8 (0.26)	4.5% (0.28)	4.6% (0.25)	3.4% (0.24)
		Partner	37.9 (0.22)	41.5 (0.25)	42.7 (0.23)	2.9% (0.21)	3.4% (0.28)	2% (0.16)
	No	Comparison	26.8 (0.53)	29.7 (0.71)	30.8 (0.76)	13% (0.97)	13.8% (0.98)	15.6% (1.09)
		Partner	29.5 (0.53)	32.9 (0.73)	32.9 (0.7)	10.2% (0.91)	11.5% (1.13)	9.1% (0.91)
Parents Read to Student	Yes	Comparison	31.7 (0.3)	35.9 (0.43)	37.8 (0.38)	7.3% (0.41)	8.4% (0.44)	6.6% (0.4)
		Partner	35 (0.3)	38.5 (0.38)	40 (0.35)	5% (0.34)	5.7% (0.48)	3.4% (0.28)
	No	Comparison	36.2 (0.33)	41 (0.32)	41.3 (0.36)	4.2% (0.36)	3.5% (0.27)	3.2% (0.31)
		Partner	38.6 (0.3)	42.1 (0.34)	43.3 (0.31)	2.9% (0.27)	3.2% (0.34)	2% (0.2)

Table K.22. Mean Scores by Demographic Trait for Invented Word Decoding (CIWPM), Cohort

Subtask	Sampled Group		Mean (SE)							
			2012	2013	2014		2015	2016		
			Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Gender	Male	Comparison	31.8 (0.28)	31.4 (0.42)		35.4 (0.39)	37 (0.55)	36.2 (0.45)	38.2 (0.53)	
		Partner	35.1 (0.36)	32.7 (0.46)	39.5 (0.72)	37.5 (0.42)	38.6 (0.52)	38.2 (0.46)	40.4 (0.52)	39.9 (0.89)
	Female	Comparison	36.9 (0.35)	35 (0.46)		41.2 (0.35)	40.7 (0.63)	43 (0.41)	41.1 (0.5)	
		Partner	38.2 (0.4)	37.1 (0.52)	44.4 (0.74)	44.1 (0.46)	42.3 (0.48)	43.3 (0.45)	45 (0.46)	46.3 (0.77)
School Location	Urban	Comparison	37.7 (0.33)	38 (0.59)		41.2 (0.38)	44.4 (0.77)	43.3 (0.43)	44 (0.68)	
		Partner	39.7 (0.4)	36.3 (0.49)	44.5 (0.78)	44 (0.45)	41.9 (0.52)	42.8 (0.48)	43.4 (0.48)	44.7 (0.91)
	Rural	Comparison	31.3 (0.31)	29.8 (0.34)		35.2 (0.36)	33.8 (0.39)	35.6 (0.43)	36.1 (0.38)	
		Partner	32.1 (0.31)	32.5 (0.41)	39.6 (0.68)	34.8 (0.33)	38 (0.44)	37.1 (0.34)	41.4 (0.48)	41.4 (0.77)
School Type	Public	Comparison	34.1 (0.26)	31.5 (0.33)		37.9 (0.29)	37.3 (0.47)	39.4 (0.34)	38.2 (0.41)	
		Partner	36.6 (0.3)	34.8 (0.38)	41.2 (0.63)	40.9 (0.34)	39.6 (0.4)	40.6 (0.36)	42 (0.38)	41.6 (0.73)
	Private	Comparison	35 (0.44)	41.5 (0.83)		39.7 (0.56)	46.5 (0.89)	40.3 (0.66)	47.2 (0.82)	
		Partner	36.4 (0.5)	35.2 (0.76)	43.3 (0.89)	39.4 (0.72)	44.4 (0.78)	40.8 (0.67)	45.8 (0.93)	45.1 (0.98)
School Faith	Secular	Comparison	34.5 (0.26)	32.3 (0.35)		38.4 (0.3)	37.9 (0.5)	39.6 (0.36)	38.2 (0.43)	
		Partner	36.6 (0.32)	36.2 (0.39)	42.1 (0.58)	40.2 (0.35)	41.1 (0.39)	40 (0.37)	43.3 (0.4)	42.4 (0.66)
	Madrasah/Islamic	Comparison	33.5 (0.42)	35.6 (0.65)		37.8 (0.54)	41.5 (0.73)	39.1 (0.51)	44.1 (0.68)	
		Partner	36.4 (0.47)	30.7 (0.74)	41.7 (1.06)	42 (0.64)	37.9 (0.83)	42.3 (0.65)	40.5 (0.7)	44.1 (1.17)
Home Language	Indonesian	Comparison	33.7 (0.36)	35.4 (0.49)		37.6 (0.39)	40.8 (0.65)	39.9 (0.45)	40.7 (0.53)	
		Partner	37.8 (0.4)	35.9 (0.51)	41.1 (0.64)	42 (0.45)	42.5 (0.43)	41.7 (0.49)	43.9 (0.47)	42.6 (0.82)
	Other	Comparison	34.9 (0.31)	30.6 (0.52)		39 (0.39)	35.9 (0.52)	39.1 (0.45)	37.9 (0.51)	
		Partner	35 (0.33)	33.5 (0.48)	43.7 (0.93)	38.3 (0.4)	36.3 (0.62)	39.1 (0.38)	40.2 (0.52)	43.6 (0.82)
Have Books at Home	Yes	Comparison	35.1 (0.27)	35.1 (0.5)		39.6 (0.34)	40.5 (0.64)	42.7 (0.43)	42.9 (0.54)	
		Partner	37.1 (0.31)	36.4 (0.52)	42.9 (0.63)	41.8 (0.42)	41.3 (0.5)	42.8 (0.46)	45.2 (0.45)	46.6 (0.84)
	No	Comparison	31.5 (0.48)	30.5 (0.5)		35.9 (0.49)	36.4 (0.57)	36.1 (0.49)	35.9 (0.51)	
		Partner	34.1 (0.51)	32.9 (0.48)	39.9 (0.99)	38.5 (0.58)	38.9 (0.57)	37.8 (0.49)	38.6 (0.59)	38 (0.74)
Attend Pre-school	Yes	Comparison	35.3 (0.24)	35 (0.36)		39.7 (0.29)	40.2 (0.46)	40.9 (0.32)	40.7 (0.4)	
		Partner	37.8 (0.28)	36.1 (0.39)	43.2 (0.56)	42.1 (0.34)	41 (0.38)	41.8 (0.35)	43 (0.37)	44.1 (0.63)
	No	Comparison	29.4 (0.69)	24.7 (0.76)		30.4 (0.79)	28.9 (1.23)	30.6 (1.12)	31 (1.02)	
		Partner	30.8 (0.79)	27.6 (0.82)	30.8 (1.15)	31 (0.97)	35.2 (1.13)	30.2 (0.91)	37.1 (1.22)	31.3 (1.74)
Parents Read to Student	Yes	Comparison	32.7 (0.33)	30.9 (0.47)		36.1 (0.41)	35.6 (0.77)	37.7 (0.51)	37.8 (0.55)	
		Partner	35.5 (0.42)	32.8 (0.49)	41.2 (0.74)	39.3 (0.5)	37.6 (0.59)	38.2 (0.49)	41.6 (0.54)	40.4 (1.04)
	No	Comparison	36 (0.34)	36.5 (0.58)		40.4 (0.37)	41.5 (0.51)	41.1 (0.42)	41.4 (0.58)	
		Partner	37.8 (0.37)	37.8 (0.54)	42.8 (0.78)	42 (0.48)	42.3 (0.47)	42.6 (0.45)	43.4 (0.51)	44.8 (0.73)

Table K.23. Zero Scores by Demographic Trait for Invented Word Decoding (CIWPM), Cohort

Subtask	Sampled Group	% Zero Scores (SE)								
		2012	2013	2014		2015		2016		
		Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3	
Gender	Male	Comparison	4% (0.39)	10% (0.69)		7.3% (0.55)	7.5% (0.56)	7.3% (0.55)	6% (0.54)	
		Partner	3.8% (0.41)	6.9% (0.68)	3% (0.71)	4.9% (0.45)	6.5% (0.8)	3.3% (0.37)	3.2% (0.38)	3.2% (1)
	Female	Comparison	3.2% (0.37)	5.9% (0.57)		3.3% (0.44)	5% (0.43)	2.8% (0.43)	3.4% (0.39)	
		Partner	3.2% (0.4)	3.1% (0.39)	1.7% (0.63)	2.5% (0.32)	3.3% (0.54)	2% (0.22)	2.2% (0.34)	1.2% (0.52)
School Location	Urban	Comparison	2.6% (0.38)	6.1% (0.73)		4.3% (0.47)	3.7% (0.39)	3.5% (0.38)	3.4% (0.46)	
		Partner	1.6% (0.31)	3.6% (0.53)	1% (0.45)	2.1% (0.27)	3.4% (0.7)	1.6% (0.23)	1.8% (0.34)	1.7% (0.65)
	Rural	Comparison	4.5% (0.38)	9.4% (0.58)		6.4% (0.53)	8.6% (0.57)	6.7% (0.6)	5.8% (0.48)	
		Partner	6.3% (0.53)	7.6% (0.59)	3.6% (0.82)	6.6% (0.61)	7.3% (0.61)	4.5% (0.44)	4.1% (0.39)	2.8% (0.92)
School Type	Public	Comparison	3.6% (0.3)	9.4% (0.54)		5.6% (0.4)	7% (0.4)	5.5% (0.41)	5.3% (0.38)	
		Partner	3.6% (0.32)	5.2% (0.44)	2.5% (0.6)	3.5% (0.31)	5.4% (0.56)	2.6% (0.24)	3% (0.27)	2.6% (0.78)
	Private	Comparison	3.5% (0.58)	1.4% (0.43)		3.9% (0.66)	2.7% (0.69)	3.3% (0.58)	1.6% (0.57)	
		Partner	3.2% (0.48)	4.2% (0.89)	2% (0.77)	4.6% (0.66)	2.8% (0.8)	3% (0.54)	1.2% (0.72)	1.7% (0.81)
School Faith	Secular	Comparison	3.5% (0.3)	9.2% (0.54)		5.3% (0.4)	7.1% (0.41)	5.3% (0.4)	5.5% (0.41)	
		Partner	3.4% (0.35)	4% (0.4)	2.3% (0.55)	3.6% (0.34)	3.8% (0.42)	2.8% (0.28)	2.8% (0.32)	2.1% (0.62)
	Madrasah/Islamic	Comparison	4.2% (0.6)	4.6% (0.81)		5.5% (0.75)	4% (0.69)	4.2% (0.73)	2.2% (0.54)	
		Partner	4% (0.44)	8.4% (1.09)	2.4% (0.93)	4% (0.48)	8.4% (1.5)	2.4% (0.36)	2.6% (0.36)	2.6% (1.15)
Home Language	Indonesian	Comparison	3.7% (0.37)	6% (0.63)		5.3% (0.49)	5.3% (0.45)	4.3% (0.42)	3.5% (0.39)	
		Partner	2.6% (0.36)	3.6% (0.54)	1.8% (0.57)	2.6% (0.32)	2.8% (0.38)	2.3% (0.28)	1.8% (0.33)	2.6% (0.72)
	Other	Comparison	3.5% (0.4)	10.4% (0.75)		5.4% (0.52)	7.8% (0.6)	6% (0.61)	6.6% (0.63)	
		Partner	4.8% (0.47)	7.1% (0.64)	3.3% (0.85)	5.7% (0.58)	9% (1.18)	3.2% (0.38)	4.3% (0.42)	1.7% (0.92)
Have Books at Home	Yes	Comparison	2.9% (0.26)	6.7% (0.62)		4.6% (0.41)	5.6% (0.46)	2.6% (0.32)	2.8% (0.32)	
		Partner	3.1% (0.32)	4.2% (0.58)	1.7% (0.44)	3.8% (0.34)	4.2% (0.63)	1.9% (0.24)	1.3% (0.21)	0.8% (0.38)
	No	Comparison	5.9% (0.79)	9.8% (0.78)		6.7% (0.69)	7.2% (0.61)	7.7% (0.66)	6.9% (0.65)	
		Partner	5.6% (0.7)	6.2% (0.54)	3.7% (1.17)	3.6% (0.54)	6.1% (0.8)	3.8% (0.42)	4.8% (0.57)	4.3% (1.23)
Attend Pre-school	Yes	Comparison	3% (0.25)	5.8% (0.48)		4% (0.35)	5.1% (0.37)	3% (0.31)	3.8% (0.35)	
		Partner	2.5% (0.25)	3.7% (0.39)	1.8% (0.47)	2.5% (0.27)	4.2% (0.49)	2.1% (0.2)	2.1% (0.27)	1.7% (0.55)
	No	Comparison	6.5% (1.06)	18.3% (1.51)		12.6% (1.31)	15% (1.48)	18.9% (1.75)	12% (1.2)	
		Partner	8.4% (1.17)	13.2% (1.63)	6.7% (2.15)	11.7% (1.37)	11.3% (1.85)	8.6% (1.4)	10.2% (1.13)	7.9% (3.05)
Parents Read to Student	Yes	Comparison	3.7% (0.37)	10.1% (0.67)		7.6% (0.62)	9.1% (0.64)	7.1% (0.61)	6.2% (0.54)	
		Partner	4.1% (0.45)	6.2% (0.59)	3.4% (0.81)	5.1% (0.47)	6.3% (0.89)	3.6% (0.4)	3.3% (0.36)	3.3% (1.14)
	No	Comparison	3.5% (0.39)	5% (0.61)		3.1% (0.36)	3.8% (0.4)	3.3% (0.43)	3.2% (0.46)	
		Partner	2.9% (0.35)	3.5% (0.52)	1.3% (0.5)	2.4% (0.33)	4% (0.56)	1.9% (0.24)	2.2% (0.37)	1.5% (0.57)

Table K.24. Mean and Zero Scores by Demographic Trait for Oral Reading Fluency (ORF), Overall

Demographic	Demographic Level	Sampled Group	Mean (SE)			% Zero Scores (SE)		
			Baseline	Midline – C1 & C2 Only	Endline	Baseline	Midline – C1 & C2 Only	Endline
Gender	Male	Comparison	55.6 (0.41)	56.8 (0.5)	59.6 (0.5)	4.5% (0.3)	5% (0.32)	4.1% (0.3)
		Partner	61.8 (0.45)	60.7 (0.5)	64.5 (0.5)	3% (0.28)	3.9% (0.33)	2.2% (0.23)
	Female	Comparison	64.8 (0.44)	65.6 (0.45)	69.5 (0.49)	2% (0.24)	2.6% (0.25)	1.9% (0.2)
		Partner	69.4 (0.46)	70.4 (0.51)	74.3 (0.42)	1.4% (0.19)	1.8% (0.26)	1.2% (0.15)
School Location	Urban	Comparison	67.5 (0.49)	68.2 (0.56)	71.8 (0.56)	2% (0.29)	2.6% (0.26)	2% (0.21)
		Partner	70.5 (0.47)	69.5 (0.52)	72.5 (0.47)	1.2% (0.23)	1.8% (0.27)	1.1% (0.17)
	Rural	Comparison	54.4 (0.37)	54.3 (0.39)	57.8 (0.44)	4.3% (0.26)	4.9% (0.31)	4% (0.29)
		Partner	58.3 (0.37)	58.6 (0.4)	64.3 (0.43)	3.6% (0.26)	4.7% (0.34)	2.7% (0.24)
School Type	Public	Comparison	58.4 (0.33)	60.1 (0.38)	63.2 (0.4)	3.7% (0.23)	4.2% (0.24)	3.3% (0.2)
		Partner	65.3 (0.36)	65 (0.4)	68.6 (0.37)	2.1% (0.19)	3% (0.24)	1.7% (0.14)
	Private	Comparison	68 (0.68)	65.7 (0.72)	70.3 (0.75)	1.3% (0.21)	2% (0.33)	1.9% (0.38)
		Partner	66.8 (0.68)	67.2 (0.75)	71.6 (0.72)	2.5% (0.4)	2.2% (0.33)	1.7% (0.41)
School Faith	Secular	Comparison	59.2 (0.35)	60.9 (0.4)	63.4 (0.41)	3.8% (0.24)	4% (0.23)	3.4% (0.21)
		Partner	67.1 (0.37)	65.7 (0.4)	69.4 (0.38)	1.6% (0.17)	2.4% (0.17)	1.8% (0.17)
	Madrasah/Islamic	Comparison	62.7 (0.61)	61.8 (0.66)	68 (0.65)	1.8% (0.3)	3% (0.41)	1.9% (0.36)
		Partner	60.9 (0.65)	64.4 (0.75)	68.6 (0.64)	3.9% (0.45)	4.4% (0.64)	1.5% (0.24)
Home Language	Indonesian	Comparison	61.9 (0.5)	62.8 (0.52)	65.8 (0.53)	2.3% (0.25)	3.6% (0.26)	2.4% (0.21)
		Partner	67.4 (0.47)	68 (0.47)	70.7 (0.46)	1.3% (0.21)	1.8% (0.18)	1.3% (0.16)
	Other	Comparison	58 (0.49)	58.9 (0.48)	62.5 (0.51)	4.4% (0.35)	4% (0.32)	3.9% (0.33)
		Partner	62.9 (0.46)	60.5 (0.59)	66.7 (0.48)	3.5% (0.29)	4.9% (0.5)	2.4% (0.26)
Have Books at Home	Yes	Comparison	62.2 (0.42)	63.4 (0.49)	70.4 (0.51)	2.4% (0.22)	3.2% (0.25)	1.7% (0.16)
		Partner	67.6 (0.41)	67 (0.49)	73.7 (0.45)	1.6% (0.2)	2.7% (0.27)	0.9% (0.12)
	No	Comparison	55.7 (0.66)	57.5 (0.62)	57.7 (0.54)	5.2% (0.47)	4.7% (0.35)	4.6% (0.35)
		Partner	60.9 (0.58)	62.4 (0.65)	62.8 (0.56)	3.6% (0.33)	3.2% (0.35)	2.9% (0.3)
Attend Pre-school	Yes	Comparison	62.8 (0.34)	63.5 (0.37)	66.7 (0.39)	2.3% (0.2)	3% (0.21)	2% (0.18)
		Partner	68.1 (0.35)	67.4 (0.38)	70.8 (0.35)	1.5% (0.16)	2% (0.2)	1.4% (0.14)
	No	Comparison	46.8 (0.86)	45.8 (1.24)	47.4 (1.14)	7.9% (0.77)	9% (0.75)	11.2% (0.84)
		Partner	51 (0.9)	50.3 (1.08)	51.9 (1.13)	6.2% (0.68)	9.9% (1.06)	5.7% (0.69)
Parents Read to Student	Yes	Comparison	63.5 (0.54)	63.7 (0.62)	67.9 (0.61)	3.3% (0.28)	5.6% (0.37)	4.4% (0.31)
		Partner	69 (0.5)	69.7 (0.63)	72.3 (0.58)	2.1% (0.23)	3.7% (0.37)	2.3% (0.25)
	No	Comparison	72.2 (0.57)	72.8 (0.52)	75.9 (0.58)	1.4% (0.18)	2.1% (0.2)	1.8% (0.22)
		Partner	75.6 (0.53)	75.6 (0.55)	78.8 (0.49)	1.5% (0.22)	2.3% (0.25)	1.3% (0.16)

Table K.25. Mean Scores by Demographic Trait for Oral Reading Fluency (ORF), Cohort

Subtask	Sampled Group	Mean (SE)								
		2012	2013	2014		2015	2016			
		Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3	
Gender	Male	Comparison	53.1 (0.44)	57.8 (0.67)		55.1 (0.6)	58.4 (0.8)	57.3 (0.63)	61.6 (0.78)	
		Partner	60.2 (0.55)	62.4 (0.81)	65.2 (1.13)	60.2 (0.63)	61.2 (0.78)	62.4 (0.71)	66.3 (0.83)	65 (1.23)
	Female	Comparison	63.8 (0.53)	65.7 (0.69)		65.6 (0.55)	65.6 (0.71)	70.1 (0.63)	68.8 (0.75)	
		Partner	67.2 (0.59)	70.9 (0.82)	71.3 (1.03)	70.8 (0.7)	69.9 (0.74)	72.1 (0.62)	75 (0.67)	78.2 (1.11)
School Location	Urban	Comparison	64.9 (0.49)	70.2 (0.86)		66.2 (0.6)	70.2 (0.95)	70.7 (0.62)	73 (0.96)	
		Partner	69.9 (0.61)	70 (0.83)	74.3 (1.14)	71 (0.68)	68 (0.8)	71.1 (0.69)	73.2 (0.76)	74.5 (1.2)
	Rural	Comparison	52.6 (0.48)	55.8 (0.56)		54.1 (0.54)	54.4 (0.56)	56.3 (0.64)	59.1 (0.61)	
		Partner	54.3 (0.45)	60.7 (0.67)	62.6 (1.01)	55.3 (0.5)	61.6 (0.61)	60.5 (0.53)	66 (0.72)	68.6 (1.15)
School Type	Public	Comparison	57.9 (0.39)	58.8 (0.53)		60.3 (0.46)	59.9 (0.6)	63.3 (0.5)	63.2 (0.61)	
		Partner	63.7 (0.45)	66.4 (0.63)	66.8 (0.94)	65.7 (0.52)	64.2 (0.61)	66.9 (0.53)	70.1 (0.59)	69.3 (1.07)
	Private	Comparison	60.1 (0.66)	75.9 (1.18)		60 (0.8)	71.6 (1.21)	65 (1.01)	75.7 (1.1)	
		Partner	62.2 (0.82)	67.4 (1.34)	71 (1.29)	63 (1.01)	71.3 (1.12)	68.2 (0.98)	72 (1.36)	74.5 (1.33)
School Faith	Secular	Comparison	58.5 (0.4)	59.8 (0.56)		61.2 (0.47)	60.6 (0.63)	63.7 (0.52)	63.1 (0.64)	
		Partner	64.1 (0.48)	69.4 (0.65)	69.3 (0.84)	64.8 (0.56)	66.6 (0.58)	66.1 (0.57)	71.9 (0.61)	71.4 (0.96)
	Madrasah/Islamic	Comparison	57.2 (0.64)	66.7 (0.94)		57 (0.79)	65.6 (1)	63.2 (0.77)	71.5 (0.99)	
		Partner	61.8 (0.73)	57.6 (1.23)	66 (1.59)	66.6 (0.87)	61.8 (1.29)	69.5 (0.87)	66.1 (1.13)	71.6 (1.57)
Home Language	Indonesian	Comparison	57.9 (0.56)	65.3 (0.79)		59.3 (0.62)	65.7 (0.81)	64.5 (0.67)	66.9 (0.79)	
		Partner	65.7 (0.63)	69.3 (0.86)	66.9 (0.96)	67.2 (0.7)	68.7 (0.64)	68.5 (0.71)	73 (0.73)	69.8 (1.15)
	Other	Comparison	58.6 (0.48)	57.4 (0.84)		61.3 (0.59)	56.3 (0.79)	62.6 (0.66)	62.4 (0.77)	
		Partner	60.6 (0.5)	62.9 (0.85)	71.2 (1.34)	61.9 (0.6)	59.1 (1.03)	64.9 (0.62)	65.9 (0.85)	74.1 (1.3)
Have Books at Home	Yes	Comparison	59.8 (0.41)	65.1 (0.78)		62.5 (0.53)	64.3 (0.82)	69.5 (0.65)	71.3 (0.78)	
		Partner	64.9 (0.48)	70.1 (0.87)	71.1 (0.95)	67.4 (0.63)	66.7 (0.75)	71.2 (0.65)	74.7 (0.71)	77.4 (1.12)
	No	Comparison	53 (0.75)	57 (0.9)		56.2 (0.8)	58.5 (0.91)	57.2 (0.72)	58.2 (0.8)	
		Partner	57.3 (0.8)	62.1 (0.83)	62.2 (1.44)	61.2 (0.9)	63.3 (0.92)	61.7 (0.81)	64 (0.95)	63.1 (1.22)
Attend Pre-school	Yes	Comparison	60.4 (0.38)	65 (0.56)		62.8 (0.45)	64.2 (0.59)	66.3 (0.48)	67.2 (0.59)	
		Partner	66 (0.44)	69.3 (0.64)	70.2 (0.82)	68 (0.51)	66.8 (0.56)	69.2 (0.51)	71.4 (0.57)	73.3 (0.88)
	No	Comparison	47.3 (1.05)	46.4 (1.31)		46 (1.2)	45.5 (2.27)	46.1 (1.7)	48.9 (1.48)	
		Partner	51.5 (1.28)	50.6 (1.46)	50.5 (2.32)	47.2 (1.44)	54 (1.64)	47.4 (1.56)	58 (1.86)	51.4 (2.87)
Parents Read to Student	Yes	Comparison	62 (0.54)	64.7 (0.85)		63.3 (0.7)	64 (1.03)	66.5 (0.81)	69.1 (0.9)	
		Partner	68.7 (0.67)	69.9 (0.86)	66.7 (1.1)	70.5 (0.82)	68.9 (0.97)	69.7 (0.82)	76.7 (0.94)	66.4 (1.53)
	No	Comparison	68.3 (0.58)	76.4 (0.98)		70.8 (0.62)	74.6 (0.81)	74.3 (0.68)	77.5 (0.92)	
		Partner	72.7 (0.64)	81.3 (1.01)	69.8 (1.15)	74.3 (0.76)	76.7 (0.79)	78.2 (0.71)	80.9 (0.85)	75 (1.07)

Table K.26. Zero Scores by Demographic Trait for Oral Reading Fluency (ORF), Cohort

Subtask	Sampled Group	% Zero Scores (SE)								
		2012	2013	2014		2015		2016		
		Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3	
Gender	Male	Comparison	2.7% (0.35)	6.2% (0.49)		5.1% (0.46)	4.8% (0.43)	4.5% (0.42)	3.8% (0.42)	
		Partner	2.1% (0.25)	4.2% (0.56)	2.1% (0.68)	3.5% (0.35)	4.3% (0.56)	2.1% (0.31)	2.3% (0.34)	2.3% (0.86)
	Female	Comparison	1.1% (0.23)	2.8% (0.4)		2.3% (0.38)	2.8% (0.34)	1.4% (0.24)	2.4% (0.33)	
		Partner	1.1% (0.2)	1.8% (0.33)	1.1% (0.58)	1.9% (0.27)	1.8% (0.44)	1.5% (0.2)	1% (0.23)	1.1% (0.52)
School Location	Urban	Comparison	1.3% (0.31)	2.6% (0.5)		3% (0.39)	2.2% (0.35)	1.7% (0.19)	2.4% (0.39)	
		Partner	0.4% (0.11)	2.1% (0.47)	1% (0.5)	1.6% (0.2)	1.9% (0.52)	0.9% (0.2)	1.1% (0.28)	1.7% (0.65)
	Rural	Comparison	2.4% (0.29)	5.9% (0.41)		4.5% (0.45)	5.3% (0.42)	4.4% (0.46)	3.6% (0.37)	
		Partner	3.3% (0.36)	4.6% (0.4)	2.3% (0.73)	4.6% (0.52)	4.8% (0.44)	3.2% (0.37)	2.5% (0.3)	1.7% (0.77)
School Type	Public	Comparison	2% (0.24)	5.3% (0.38)		3.9% (0.34)	4.4% (0.33)	3.1% (0.27)	3.4% (0.3)	
		Partner	1.4% (0.17)	3% (0.36)	1.6% (0.55)	2.5% (0.25)	3.6% (0.42)	1.8% (0.21)	1.6% (0.19)	1.9% (0.66)
	Private	Comparison	1.7% (0.42)	0.9% (0.06)		3% (0.55)	1% (0.36)	2.5% (0.55)	1.3% (0.53)	
		Partner	2.8% (0.46)	3.1% (0.82)	1.7% (0.76)	3.7% (0.54)	0.8% (0.39)	1.9% (0.38)	1.8% (0.83)	1.5% (0.79)
School Faith	Secular	Comparison	1.8% (0.24)	5.7% (0.41)		3.6% (0.33)	4.5% (0.33)	3.2% (0.28)	3.6% (0.31)	
		Partner	1.1% (0.18)	2.2% (0.32)	1.3% (0.49)	2.5% (0.27)	2.2% (0.21)	1.9% (0.24)	1.8% (0.27)	1.4% (0.49)
	Madrasah/Islamic	Comparison	2.3% (0.48)	1.4% (0.39)		4.4% (0.68)	1.9% (0.5)	2.5% (0.5)	1.5% (0.51)	
		Partner	3% (0.37)	5.6% (0.95)	2.4% (0.93)	3.2% (0.42)	5.9% (1.32)	1.5% (0.25)	1.2% (0.2)	2.2% (1.13)
Home Language	Indonesian	Comparison	1.6% (0.24)	2.9% (0.41)		4.2% (0.45)	3.1% (0.3)	2.8% (0.31)	2.2% (0.3)	
		Partner	0.7% (0.14)	1.7% (0.43)	1.7% (0.62)	1.9% (0.24)	1.7% (0.27)	1.3% (0.19)	1.2% (0.26)	1.9% (0.59)
	Other	Comparison	2.3% (0.36)	6.5% (0.6)		3.2% (0.39)	4.9% (0.53)	3.3% (0.43)	4.6% (0.51)	
		Partner	2.8% (0.33)	4.8% (0.56)	1.5% (0.49)	4.2% (0.49)	5.7% (0.9)	2.6% (0.36)	2.5% (0.35)	1.5% (0.92)
Have Books at Home	Yes	Comparison	1.4% (0.18)	3.6% (0.44)		3.1% (0.35)	3.4% (0.37)	1.5% (0.22)	1.9% (0.22)	
		Partner	1.2% (0.16)	2.4% (0.5)	0.7% (0.36)	3.1% (0.31)	2.4% (0.46)	1.1% (0.16)	0.8% (0.18)	0.8% (0.39)
	No	Comparison	3.9% (0.71)	5.8% (0.6)		4.9% (0.56)	4.5% (0.45)	4.7% (0.47)	4.5% (0.52)	
		Partner	3.3% (0.55)	3.8% (0.41)	3.7% (1.17)	2% (0.29)	4.3% (0.62)	2.8% (0.38)	2.9% (0.47)	3% (1.07)
Attend Pre-school	Yes	Comparison	1.7% (0.2)	3% (0.34)		3% (0.31)	3% (0.27)	1.4% (0.18)	2.4% (0.29)	
		Partner	1.1% (0.13)	2% (0.32)	1.4% (0.45)	1.6% (0.2)	2.4% (0.34)	1.3% (0.16)	1.3% (0.22)	1.8% (0.55)
	No	Comparison	3.2% (0.8)	11.7% (1.22)		8% (0.92)	10% (1.22)	13.7% (1.43)	8.5% (0.74)	
		Partner	4.1% (0.71)	9.3% (1.36)	4% (1.81)	10.6% (1.31)	9% (1.74)	6.4% (1.26)	6.7% (0.86)	1.1% (0.62)
Parents Read to Student	Yes	Comparison	1.8% (0.29)	4.5% (0.45)		5.5% (0.53)	5.7% (0.51)	4.4% (0.45)	4.3% (0.43)	
		Partner	1.2% (0.2)	2.8% (0.43)	2.2% (0.71)	3.7% (0.4)	3.8% (0.66)	2.4% (0.33)	2% (0.34)	2.9% (1.05)
	No	Comparison	1.1% (0.24)	1.7% (0.28)		2% (0.27)	2.3% (0.29)	1.8% (0.28)	1.8% (0.34)	
		Partner	1.2% (0.2)	2% (0.46)	1.1% (0.53)	1.8% (0.28)	2.6% (0.4)	1.3% (0.21)	1.3% (0.28)	0.9% (0.46)

Table K.27. Mean and Zero Scores by Demographic Trait for Reading Comprehension (5), Overall

Demographic	Demographic Level	Sampled Group	Mean (SE)			% Zero Scores (SE)		
			Baseline	Midline – C1 & C2 Only	Endline	Baseline	Midline – C1 & C2 Only	Endline
Gender	Male	Comparison	3.1 (0.02)	3.5 (0.02)	3.6 (0.03)	8.7% (0.46)	5.9% (0.36)	7% (0.39)
		Partner	3.4 (0.02)	3.7 (0.03)	3.8 (0.02)	5% (0.36)	3.9% (0.37)	4% (0.32)
	Female	Comparison	3.3 (0.02)	3.9 (0.02)	4 (0.02)	4.7% (0.35)	3.2% (0.28)	3.4% (0.27)
		Partner	3.6 (0.02)	4.1 (0.02)	4.2 (0.02)	2.7% (0.33)	2.1% (0.29)	2.2% (0.18)
School Location	Urban	Comparison	3.5 (0.03)	4 (0.02)	4 (0.03)	3.9% (0.4)	2.3% (0.24)	3.6% (0.29)
		Partner	3.6 (0.03)	4.1 (0.03)	4.1 (0.02)	2.9% (0.37)	1.7% (0.31)	2% (0.24)
	Rural	Comparison	3 (0.02)	3.4 (0.02)	3.5 (0.02)	8.9% (0.41)	6.8% (0.39)	6.7% (0.37)
		Partner	3.3 (0.02)	3.6 (0.02)	3.8 (0.02)	5.4% (0.27)	5.2% (0.36)	4.8% (0.31)
School Type	Public	Comparison	3.1 (0.02)	3.7 (0.02)	3.8 (0.02)	7.4% (0.34)	4.9% (0.26)	5.6% (0.27)
		Partner	3.4 (0.02)	3.9 (0.02)	4 (0.02)	4.2% (0.29)	3.3% (0.27)	3.3% (0.21)
	Private	Comparison	3.5 (0.04)	3.8 (0.04)	3.9 (0.04)	3.6% (0.46)	2.9% (0.51)	3.4% (0.44)
		Partner	3.7 (0.03)	3.9 (0.04)	4.1 (0.03)	2.5% (0.37)	1.5% (0.4)	2.5% (0.43)
School Faith	Secular	Comparison	3.2 (0.02)	3.7 (0.02)	3.7 (0.02)	7.2% (0.33)	4.8% (0.26)	5.9% (0.28)
		Partner	3.5 (0.02)	3.9 (0.02)	4 (0.02)	3.3% (0.26)	2.6% (0.22)	3.4% (0.22)
	Madrasah/Islamic	Comparison	3.3 (0.04)	3.7 (0.03)	3.9 (0.03)	5.5% (0.62)	3.7% (0.5)	3.1% (0.4)
		Partner	3.4 (0.04)	3.8 (0.04)	4 (0.03)	5.7% (0.62)	4.1% (0.64)	2.5% (0.38)
Home Language	Indonesian	Comparison	3.3 (0.03)	3.8 (0.02)	3.9 (0.02)	4.5% (0.37)	3.7% (0.26)	4.2% (0.29)
		Partner	3.6 (0.02)	4 (0.02)	4 (0.02)	2.6% (0.31)	2% (0.24)	2.5% (0.24)
	Other	Comparison	3.1 (0.02)	3.6 (0.03)	3.6 (0.03)	9.2% (0.51)	5.7% (0.4)	6.7% (0.42)
		Partner	3.4 (0.02)	3.7 (0.03)	3.9 (0.02)	5.8% (0.43)	4.8% (0.5)	4.3% (0.32)
Have Books at Home	Yes	Comparison	3.3 (0.02)	3.8 (0.02)	4 (0.02)	5.2% (0.36)	4.5% (0.31)	3.1% (0.23)
		Partner	3.6 (0.02)	4 (0.02)	4.2 (0.02)	3.3% (0.31)	2.6% (0.3)	1.5% (0.15)
	No	Comparison	3 (0.03)	3.5 (0.03)	3.5 (0.03)	9.9% (0.63)	4.7% (0.35)	7.6% (0.46)
		Partner	3.3 (0.03)	3.7 (0.03)	3.7 (0.03)	5.3% (0.43)	3.7% (0.39)	5.4% (0.42)
Attend Pre-school	Yes	Comparison	3.3 (0.02)	3.8 (0.02)	3.9 (0.02)	5.1% (0.3)	3.5% (0.22)	3.9% (0.24)
		Partner	3.6 (0.02)	4 (0.02)	4.1 (0.02)	2.8% (0.25)	2.4% (0.23)	2.3% (0.18)
	No	Comparison	2.5 (0.05)	2.9 (0.06)	2.9 (0.06)	14.8% (1.07)	11.7% (0.98)	15.1% (1.05)
		Partner	2.8 (0.04)	3 (0.06)	3.1 (0.06)	10.4% (0.89)	7.8% (1.03)	12.2% (1.08)
Parents Read to Student	Yes	Comparison	3 (0.03)	3.5 (0.03)	3.6 (0.03)	8.3% (0.45)	6.2% (0.4)	7.6% (0.43)
		Partner	3.4 (0.03)	3.8 (0.03)	3.9 (0.03)	4.9% (0.39)	3.6% (0.38)	4.1% (0.34)
	No	Comparison	3.4 (0.03)	3.9 (0.02)	3.9 (0.02)	4.9% (0.39)	3.1% (0.25)	3.1% (0.27)
		Partner	3.6 (0.02)	4 (0.02)	4.1 (0.02)	2.8% (0.29)	2.5% (0.3)	2.4% (0.21)

Table K.28. Mean Scores by Demographic Trait for Reading Comprehension (5), Cohort

Subtask	Sampled Group	Mean (SE)								
		2012	2013	2014		2015	2016			
		Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3	
Gender	Male	Comparison	3 (0.03)	3.1 (0.04)		3.5 (0.03)	3.5 (0.04)	3.5 (0.03)	3.7 (0.04)	
		Partner	3.3 (0.03)	3.3 (0.04)	4 (0.05)	3.7 (0.03)	3.8 (0.04)	3.7 (0.03)	3.8 (0.04)	3.9 (0.06)
	Female	Comparison	3.3 (0.03)	3.4 (0.04)		3.9 (0.03)	3.9 (0.04)	4 (0.03)	4 (0.03)	
		Partner	3.4 (0.03)	3.6 (0.04)	4.2 (0.04)	4.1 (0.03)	4.1 (0.04)	4.1 (0.03)	4.2 (0.03)	4.3 (0.05)
School Location	Urban	Comparison	3.4 (0.03)	3.5 (0.05)		3.9 (0.03)	4 (0.04)	4 (0.03)	4.1 (0.04)	
		Partner	3.5 (0.04)	3.5 (0.04)	4.3 (0.04)	4.1 (0.03)	4 (0.04)	4.1 (0.03)	4.1 (0.04)	4.2 (0.05)
	Rural	Comparison	3 (0.03)	3 (0.03)		3.4 (0.03)	3.4 (0.03)	3.4 (0.03)	3.6 (0.03)	
		Partner	3.1 (0.03)	3.2 (0.03)	3.9 (0.05)	3.5 (0.03)	3.8 (0.03)	3.6 (0.03)	3.9 (0.03)	4 (0.06)
School Type	Public	Comparison	3.2 (0.02)	3.1 (0.03)		3.7 (0.02)	3.6 (0.03)	3.7 (0.02)	3.8 (0.03)	
		Partner	3.3 (0.03)	3.4 (0.03)	4 (0.04)	3.9 (0.03)	3.9 (0.03)	3.9 (0.03)	4 (0.03)	4 (0.05)
	Private	Comparison	3.2 (0.04)	3.8 (0.06)		3.6 (0.05)	4.1 (0.05)	3.7 (0.04)	4.1 (0.06)	
		Partner	3.3 (0.04)	3.5 (0.06)	4.2 (0.05)	3.7 (0.05)	4.1 (0.05)	3.9 (0.04)	4.2 (0.06)	4.2 (0.06)
School Faith	Secular	Comparison	3.2 (0.02)	3.1 (0.03)		3.7 (0.02)	3.7 (0.03)	3.8 (0.02)	3.7 (0.03)	
		Partner	3.4 (0.03)	3.5 (0.03)	4.1 (0.04)	3.9 (0.03)	4 (0.03)	3.9 (0.03)	4 (0.03)	4.1 (0.05)
	Madrasah/Islamic	Comparison	3.1 (0.04)	3.4 (0.05)		3.5 (0.05)	3.8 (0.05)	3.6 (0.04)	4.1 (0.05)	
		Partner	3.3 (0.04)	3.2 (0.07)	4.1 (0.07)	3.9 (0.04)	3.8 (0.08)	4 (0.04)	3.9 (0.06)	4.1 (0.07)
Home Language	Indonesian	Comparison	3.1 (0.03)	3.4 (0.04)		3.7 (0.03)	3.9 (0.04)	3.8 (0.03)	3.9 (0.04)	
		Partner	3.4 (0.04)	3.6 (0.04)	4 (0.04)	3.9 (0.03)	4.1 (0.03)	4 (0.03)	4.1 (0.03)	4 (0.05)
	Other	Comparison	3.2 (0.03)	3 (0.04)		3.7 (0.03)	3.5 (0.04)	3.6 (0.03)	3.6 (0.04)	
		Partner	3.3 (0.03)	3.2 (0.04)	4.2 (0.05)	3.7 (0.03)	3.6 (0.06)	3.9 (0.03)	3.8 (0.04)	4.2 (0.06)
Have Books at Home	Yes	Comparison	3.2 (0.02)	3.3 (0.04)		3.8 (0.03)	3.8 (0.04)	4 (0.03)	4.1 (0.04)	
		Partner	3.4 (0.03)	3.6 (0.04)	4.2 (0.04)	4 (0.03)	4 (0.04)	4.2 (0.03)	4.2 (0.03)	4.3 (0.05)
	No	Comparison	3 (0.04)	3 (0.05)		3.5 (0.04)	3.6 (0.04)	3.4 (0.04)	3.6 (0.04)	
		Partner	3.2 (0.05)	3.2 (0.04)	3.9 (0.06)	3.7 (0.04)	3.8 (0.05)	3.6 (0.04)	3.7 (0.05)	3.8 (0.07)
Attend Pre-school	Yes	Comparison	3.3 (0.02)	3.4 (0.03)		3.8 (0.02)	3.8 (0.03)	3.9 (0.02)	3.9 (0.03)	
		Partner	3.4 (0.03)	3.5 (0.03)	4.2 (0.04)	4 (0.02)	4 (0.03)	4 (0.02)	4.1 (0.03)	4.2 (0.04)
	No	Comparison	2.6 (0.05)	2.4 (0.07)		2.9 (0.07)	2.8 (0.1)	2.7 (0.08)	3.2 (0.09)	
		Partner	2.8 (0.06)	2.7 (0.07)	3.3 (0.09)	2.8 (0.07)	3.2 (0.1)	2.9 (0.09)	3.3 (0.1)	3.1 (0.15)
Parents Read to Student	Yes	Comparison	3.1 (0.03)	3 (0.04)		3.5 (0.04)	3.4 (0.04)	3.5 (0.04)	3.7 (0.04)	
		Partner	3.3 (0.04)	3.3 (0.04)	4.1 (0.05)	3.8 (0.04)	3.8 (0.05)	3.9 (0.04)	3.9 (0.04)	3.8 (0.08)
	No	Comparison	3.3 (0.03)	3.5 (0.04)		3.9 (0.03)	3.9 (0.04)	3.9 (0.03)	4 (0.04)	
		Partner	3.4 (0.03)	3.6 (0.04)	4.1 (0.05)	3.9 (0.03)	4.1 (0.04)	4 (0.03)	4.1 (0.04)	4.3 (0.04)

Table K.29. Zero Scores by Demographic Trait for Reading Comprehension (5), Cohort

Subtask			% Zero Scores (SE)									
			2012		2013		2014		2015		2016	
			Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3		
Gender	Male	Comparison	4.7% (0.44)	12.4% (0.77)		3.2% (0.42)	8.3% (0.56)	7.3% (0.55)	6.8% (0.54)			
		Partner	3.8% (0.52)	7.8% (0.67)	0.5% (0.23)	2.1% (0.44)	5.6% (0.58)	3.6% (0.39)	4.2% (0.54)	4.7% (1.05)		
	Female	Comparison	2.1% (0.3)	7% (0.62)		1.8% (0.35)	4.5% (0.44)	3.3% (0.36)	3.5% (0.41)			
		Partner	2% (0.37)	4.4% (0.67)	0.3% (0.17)	1% (0.26)	3.1% (0.51)	2.4% (0.24)	2.1% (0.29)	1.5% (0.55)		
School Location	Urban	Comparison	2.1% (0.34)	5.8% (0.73)		0.9% (0.23)	3.5% (0.42)	3.8% (0.36)	3.4% (0.46)			
		Partner	1.4% (0.45)	5% (0.7)	0% (0)	0.9% (0.29)	2.5% (0.56)	1.5% (0.22)	2.5% (0.47)	2.2% (0.69)		
	Rural	Comparison	4.6% (0.41)	12.5% (0.68)		4.2% (0.51)	9% (0.57)	6.8% (0.56)	6.6% (0.49)			
		Partner	5.1% (0.46)	8.1% (0.47)	0.7% (0.28)	2.9% (0.52)	7.2% (0.5)	5.6% (0.5)	4.5% (0.34)	4% (0.97)		
School Type	Public	Comparison	3.1% (0.29)	11.3% (0.59)		2.3% (0.28)	7.3% (0.42)	5.4% (0.38)	5.8% (0.39)			
		Partner	2.8% (0.37)	6.6% (0.53)	0.6% (0.22)	1.6% (0.3)	5% (0.45)	3.1% (0.26)	3.4% (0.34)	3.5% (0.82)		
	Private	Comparison	4.9% (0.7)	2.4% (0.6)		3.6% (0.84)	2.3% (0.58)	4.9% (0.67)	1.8% (0.55)			
		Partner	3.6% (0.54)	3.7% (0.94)	0% (0)	1.5% (0.48)	1.6% (0.62)	2.5% (0.39)	2.4% (0.85)	2.6% (0.86)		
School Faith	Secular	Comparison	3% (0.29)	11.2% (0.59)		2.3% (0.29)	7.2% (0.42)	5.5% (0.39)	6.2% (0.42)			
		Partner	2.6% (0.41)	4.9% (0.42)	0.5% (0.2)	1.7% (0.34)	3.5% (0.28)	3.5% (0.31)	3.3% (0.33)	3.2% (0.68)		
	Madrasah/Islamic	Comparison	5% (0.68)	5.8% (0.94)		3.2% (0.73)	4% (0.7)	4.6% (0.61)	2% (0.54)			
		Partner	3.8% (0.42)	10.2% (1.47)	0% (0)	1.3% (0.32)	7.3% (1.33)	2% (0.27)	3% (0.78)	2.9% (1.17)		
Home Language	Indonesian	Comparison	2.3% (0.31)	6.4% (0.63)		2.1% (0.3)	4.9% (0.41)	5.1% (0.43)	3.4% (0.4)			
		Partner	2.1% (0.48)	4% (0.56)	0.4% (0.17)	1.7% (0.36)	2.4% (0.32)	2.3% (0.26)	2.2% (0.41)	3.5% (0.76)		
	Other	Comparison	4.5% (0.45)	13.7% (0.9)		3% (0.47)	8.6% (0.66)	5.6% (0.55)	8% (0.64)			
		Partner	4% (0.43)	9.2% (0.89)	0.4% (0.26)	1.5% (0.31)	8.2% (0.95)	4.2% (0.45)	5.1% (0.51)	2.5% (0.97)		
Have Books at Home	Yes	Comparison	2.7% (0.27)	8.4% (0.72)		2.7% (0.36)	6.4% (0.52)	2.8% (0.33)	3.3% (0.32)			
		Partner	2.3% (0.34)	5.9% (0.73)	0.5% (0.2)	1.5% (0.35)	3.8% (0.51)	1.6% (0.19)	1.7% (0.24)	1% (0.42)		
	No	Comparison	6% (0.77)	11.7% (0.85)		2.2% (0.4)	6.6% (0.54)	8% (0.62)	7.3% (0.67)			
		Partner	5.7% (0.95)	6.5% (0.59)	0% (0)	1.7% (0.39)	5.4% (0.65)	5% (0.49)	5.6% (0.73)	6% (1.28)		
Attend Pre-school	Yes	Comparison	3% (0.26)	7% (0.53)		1.6% (0.24)	5.1% (0.36)	3.6% (0.32)	4.2% (0.35)			
		Partner	2% (0.34)	4.5% (0.49)	0.3% (0.12)	1.2% (0.26)	3.6% (0.38)	2% (0.19)	2.5% (0.33)	2.5% (0.58)		
	No	Comparison	5.5% (1.03)	22.5% (1.7)		7.7% (1.22)	16% (1.59)	16.6% (1.51)	13.4% (1.43)			
		Partner	7.2% (1)	16.2% (1.73)	1.4% (0.9)	4.6% (1.09)	11.3% (1.77)	12.7% (1.76)	12.7% (1.27)	9.5% (3.21)		
Parents Read to Student	Yes	Comparison	3.4% (0.37)	12.1% (0.76)		3.3% (0.47)	9% (0.65)	8.2% (0.64)	7% (0.59)			
		Partner	3.2% (0.53)	7.7% (0.71)	0.5% (0.23)	1.6% (0.33)	5.9% (0.72)	3.5% (0.39)	4.3% (0.56)	5.1% (1.22)		
	No	Comparison	3.4% (0.42)	6.5% (0.67)		1.7% (0.27)	4.2% (0.41)	2.8% (0.32)	3.4% (0.42)			
		Partner	2.6% (0.39)	4% (0.6)	0.3% (0.17)	1.5% (0.41)	3.4% (0.43)	2.6% (0.3)	2.3% (0.35)	1.8% (0.58)		

Table K.30. Mean and Zero Scores by Demographic Trait for Listening Comprehension (3), Overall

Demographic	Demographic Level	Sampled Group	Mean (SE)			% Zero Scores (SE)		
			Baseline	Midline –C1 & C2 Only	Endline	Baseline	Midline – C1 & C2 Only	Endline
Gender	Male	Comparison	1.4 (0.02)	2.5 (0.01)	2.5 (0.01)	20.7% (0.73)	1.9% (0.2)	3% (0.29)
		Partner	1.6 (0.02)	2.5 (0.01)	2.6 (0.01)	15.4% (0.63)	2.1% (0.23)	2.4% (0.27)
	Female	Comparison	1.6 (0.02)	2.5 (0.01)	2.5 (0.02)	14.9% (0.61)	1.7% (0.22)	3.1% (0.38)
		Partner	1.8 (0.02)	2.6 (0.01)	2.6 (0.01)	10.2% (0.62)	1.5% (0.19)	1.6% (0.2)
School Location	Urban	Comparison	1.6 (0.02)	2.6 (0.01)	2.6 (0.02)	13% (0.64)	1% (0.14)	2.2% (0.34)
		Partner	1.8 (0.02)	2.6 (0.01)	2.6 (0.01)	11.2% (0.67)	1% (0.17)	1.6% (0.22)
	Rural	Comparison	1.4 (0.02)	2.5 (0.01)	2.4 (0.01)	21.6% (0.69)	2.5% (0.26)	3.8% (0.33)
		Partner	1.7 (0.01)	2.5 (0.01)	2.5 (0.01)	15.3% (0.49)	3.2% (0.28)	2.7% (0.26)
School Type	Public	Comparison	1.5 (0.01)	2.5 (0.01)	2.5 (0.01)	18.4% (0.55)	1.9% (0.17)	3.2% (0.28)
		Partner	1.7 (0.01)	2.6 (0.01)	2.6 (0.01)	13.5% (0.52)	1.9% (0.16)	2.3% (0.21)
	Private	Comparison	1.6 (0.03)	2.6 (0.02)	2.5 (0.02)	15.3% (0.9)	1.2% (0.25)	2.5% (0.35)
		Partner	1.9 (0.02)	2.6 (0.02)	2.7 (0.02)	9.8% (0.65)	1.5% (0.38)	1.7% (0.09)
School Faith	Secular	Comparison	1.5 (0.01)	2.5 (0.01)	2.5 (0.01)	17.6% (0.54)	2% (0.18)	3% (0.28)
		Partner	1.7 (0.01)	2.5 (0.01)	2.6 (0.01)	13% (0.52)	2.1% (0.19)	2.2% (0.2)
	Madrasah/Islamic	Comparison	1.5 (0.03)	2.6 (0.02)	2.5 (0.02)	18.9% (1.01)	1.2% (0.25)	3% (0.44)
		Partner	1.8 (0.02)	2.6 (0.02)	2.6 (0.02)	12.7% (0.86)	1.1% (0.16)	1.5% (0.32)
Home Language	Indonesian	Comparison	1.5 (0.02)	2.6 (0.01)	2.5 (0.02)	16.3% (0.7)	1.5% (0.18)	2.6% (0.32)
		Partner	1.8 (0.02)	2.6 (0.01)	2.6 (0.01)	11% (0.64)	1.3% (0.19)	1.7% (0.22)
	Other	Comparison	1.4 (0.02)	2.5 (0.01)	2.5 (0.01)	19.6% (0.69)	2.1% (0.25)	3.7% (0.37)
		Partner	1.6 (0.02)	2.5 (0.02)	2.6 (0.01)	15.6% (0.61)	2.8% (0.27)	2.6% (0.27)
Have Books at Home	Yes	Comparison	1.5 (0.02)	2.6 (0.01)	2.6 (0.01)	16.2% (0.6)	1.5% (0.19)	2.4% (0.32)
		Partner	1.8 (0.01)	2.6 (0.01)	2.6 (0.01)	11.8% (0.57)	1.6% (0.17)	1.2% (0.16)
	No	Comparison	1.4 (0.02)	2.5 (0.01)	2.4 (0.02)	21.3% (0.88)	2.3% (0.26)	3.8% (0.36)
		Partner	1.7 (0.02)	2.5 (0.02)	2.5 (0.02)	15.2% (0.73)	2.3% (0.29)	3.1% (0.35)
Attend Pre-school	Yes	Comparison	1.5 (0.01)	2.6 (0.01)	2.5 (0.01)	15.7% (0.51)	1.4% (0.15)	2.3% (0.24)
		Partner	1.8 (0.01)	2.6 (0.01)	2.6 (0.01)	11.1% (0.48)	1.4% (0.13)	1.7% (0.17)
	No	Comparison	1.2 (0.03)	2.3 (0.03)	2.2 (0.03)	28% (1.39)	4.4% (0.6)	8.3% (1)
		Partner	1.4 (0.03)	2.3 (0.03)	2.3 (0.03)	23.3% (1.3)	5.3% (0.85)	5.6% (0.77)
Parents Read to Student	Yes	Comparison	1.5 (0.02)	2.5 (0.01)	2.5 (0.02)	19.4% (0.7)	2% (0.21)	3.4% (0.37)
		Partner	1.7 (0.02)	2.5 (0.01)	2.6 (0.01)	14.4% (0.68)	2.3% (0.24)	2.2% (0.28)
	No	Comparison	1.5 (0.02)	2.6 (0.01)	2.5 (0.02)	15.9% (0.7)	1.7% (0.21)	2.7% (0.31)
		Partner	1.8 (0.02)	2.6 (0.01)	2.6 (0.01)	11.1% (0.58)	1.5% (0.19)	1.9% (0.21)

Table K.31. Mean Scores by Demographic Trait for Listening Comprehension (3), Cohort

Subtask	Sampled Group		Mean (SE)							
			2012	2013	2014		2015	2016		
			Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Gender	Male	Comparison	1.4 (0.02)	1.4 (0.03)		2.5 (0.02)	2.6 (0.02)	2.5 (0.02)	2.5 (0.02)	
		Partner	1.5 (0.02)	1.5 (0.03)	2.5 (0.03)	2.5 (0.02)	2.5 (0.02)	2.5 (0.02)	2.5 (0.02)	2.6 (0.03)
	Female	Comparison	1.5 (0.02)	1.6 (0.02)		2.5 (0.02)	2.5 (0.02)	2.5 (0.02)	2.6 (0.02)	
		Partner	1.7 (0.03)	1.7 (0.03)	2.6 (0.03)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.7 (0.02)
School Location	Urban	Comparison	1.6 (0.03)	1.7 (0.03)		2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.6 (0.03)	
		Partner	1.6 (0.03)	1.7 (0.03)	2.7 (0.03)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.7 (0.03)
	Rural	Comparison	1.4 (0.02)	1.4 (0.02)		2.4 (0.02)	2.5 (0.02)	2.4 (0.02)	2.5 (0.02)	
		Partner	1.4 (0.02)	1.5 (0.02)	2.5 (0.03)	2.5 (0.02)	2.5 (0.02)	2.5 (0.02)	2.5 (0.02)	2.6 (0.03)
School Type	Public	Comparison	1.5 (0.02)	1.5 (0.02)		2.5 (0.01)	2.5 (0.01)	2.4 (0.02)	2.5 (0.02)	
		Partner	1.6 (0.02)	1.6 (0.02)	2.6 (0.02)	2.6 (0.01)	2.6 (0.02)	2.5 (0.02)	2.5 (0.02)	2.6 (0.02)
	Private	Comparison	1.5 (0.03)	1.6 (0.04)		2.6 (0.02)	2.6 (0.03)	2.5 (0.02)	2.6 (0.03)	
		Partner	1.6 (0.03)	1.6 (0.04)	2.5 (0.04)	2.6 (0.03)	2.6 (0.04)	2.6 (0.02)	2.6 (0.03)	2.7 (0.03)
School Faith	Secular	Comparison	1.5 (0.02)	1.5 (0.02)		2.5 (0.01)	2.5 (0.02)	2.5 (0.02)	2.5 (0.02)	
		Partner	1.5 (0.02)	1.6 (0.02)	2.6 (0.02)	2.5 (0.02)	2.6 (0.02)	2.5 (0.02)	2.6 (0.02)	2.7 (0.02)
	Madrasah/Islamic	Comparison	1.4 (0.03)	1.5 (0.04)		2.5 (0.02)	2.6 (0.03)	2.5 (0.03)	2.5 (0.03)	
		Partner	1.7 (0.03)	1.5 (0.04)	2.5 (0.05)	2.6 (0.02)	2.6 (0.03)	2.6 (0.03)	2.6 (0.04)	2.7 (0.04)
Home Language	Indonesian	Comparison	1.5 (0.02)	1.6 (0.03)		2.5 (0.02)	2.6 (0.02)	2.5 (0.02)	2.5 (0.02)	
		Partner	1.6 (0.03)	1.7 (0.03)	2.5 (0.03)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.6 (0.03)
	Other	Comparison	1.5 (0.02)	1.4 (0.03)		2.5 (0.02)	2.5 (0.02)	2.5 (0.02)	2.5 (0.02)	
		Partner	1.5 (0.02)	1.5 (0.03)	2.6 (0.03)	2.6 (0.02)	2.5 (0.03)	2.5 (0.02)	2.5 (0.03)	2.8 (0.02)
Have Books at Home	Yes	Comparison	1.5 (0.02)	1.6 (0.03)		2.5 (0.01)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	
		Partner	1.6 (0.02)	1.6 (0.03)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.6 (0.02)	2.7 (0.03)
	No	Comparison	1.3 (0.03)	1.4 (0.03)		2.5 (0.02)	2.5 (0.02)	2.3 (0.02)	2.5 (0.02)	
		Partner	1.4 (0.03)	1.6 (0.03)	2.4 (0.05)	2.5 (0.02)	2.5 (0.03)	2.5 (0.02)	2.5 (0.03)	2.6 (0.03)
Attend Pre-school	Yes	Comparison	1.5 (0.02)	1.6 (0.02)		2.6 (0.01)	2.6 (0.01)	2.5 (0.01)	2.5 (0.02)	
		Partner	1.6 (0.02)	1.6 (0.02)	2.6 (0.02)	2.6 (0.01)	2.6 (0.01)	2.6 (0.01)	2.6 (0.02)	2.7 (0.02)
	No	Comparison	1.2 (0.04)	1.2 (0.04)		2.2 (0.04)	2.3 (0.04)	2.1 (0.05)	2.4 (0.04)	
		Partner	1.3 (0.05)	1.4 (0.04)	2.4 (0.06)	2.3 (0.04)	2.4 (0.05)	2.2 (0.05)	2.5 (0.04)	2.5 (0.08)
Parents Read to Student	Yes	Comparison	1.5 (0.02)	1.5 (0.03)		2.5 (0.02)	2.5 (0.02)	2.4 (0.02)	2.5 (0.02)	
		Partner	1.6 (0.03)	1.5 (0.03)	2.5 (0.03)	2.5 (0.02)	2.5 (0.02)	2.6 (0.02)	2.5 (0.02)	2.6 (0.03)
	No	Comparison	1.5 (0.02)	1.6 (0.03)		2.5 (0.02)	2.6 (0.02)	2.5 (0.02)	2.5 (0.02)	
		Partner	1.6 (0.03)	1.7 (0.03)	2.6 (0.03)	2.6 (0.02)	2.6 (0.02)	2.5 (0.02)	2.6 (0.02)	2.7 (0.02)

Table K.32. Zero Scores by Demographic Trait for Listening Comprehension (3), Cohort

Subtask	Sampled Group	% Zero Scores (SE)								
		2012	2013	2014		2015		2016		
		Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3	
Gender	Male	Comparison	20.2% (0.95)	21.1% (1.08)		2.4% (0.3)	1.5% (0.28)	3.5% (0.44)	2.5% (0.39)	
		Partner	18.2% (1.09)	17.4% (0.98)	0.9% (0.4)	2.7% (0.35)	1.6% (0.29)	2.4% (0.39)	3.1% (0.49)	0.1% (0.04)
	Female	Comparison	15.7% (0.84)	14.1% (0.89)		1.5% (0.28)	1.9% (0.35)	3.9% (0.6)	2.3% (0.49)	
		Partner	12.7% (0.97)	10.9% (1.09)	1.4% (0.65)	1.3% (0.27)	1.6% (0.28)	1.4% (0.22)	2.2% (0.41)	0.4% (0.17)
School Location	Urban	Comparison	14.9% (0.85)	11.1% (0.96)		1.2% (0.19)	0.9% (0.21)	2.4% (0.43)	1.9% (0.54)	
		Partner	13% (1.1)	12.4% (1.06)	0.6% (0.48)	0.8% (0.18)	1.2% (0.29)	1.1% (0.22)	2.4% (0.45)	0.2% (0.09)
	Rural	Comparison	20.7% (0.93)	22.3% (0.99)		2.7% (0.37)	2.4% (0.37)	5.1% (0.6)	2.8% (0.36)	
		Partner	19.3% (0.83)	17.5% (0.81)	1.8% (0.6)	4.2% (0.52)	2.2% (0.25)	3.3% (0.48)	3.1% (0.43)	0.4% (0.14)
School Type	Public	Comparison	17.8% (0.74)	19% (0.8)		2.1% (0.24)	1.7% (0.25)	3.9% (0.44)	2.5% (0.36)	
		Partner	15.5% (0.84)	14.8% (0.82)	0.9% (0.41)	2% (0.25)	1.7% (0.21)	2.1% (0.27)	3.1% (0.38)	0.3% (0.08)
	Private	Comparison	19.2% (1.13)	11.5% (1.4)		1% (0.36)	1.5% (0.36)	3.2% (0.44)	1.8% (0.55)	
		Partner	16.2% (1.07)	10.8% (1.39)	1.6% (0.78)	2% (0.41)	1% (0.63)	1% (0.11)	0.9% (0.18)	0.3% (0.17)
School Faith	Secular	Comparison	17.6% (0.76)	17.6% (0.78)		2.2% (0.25)	1.8% (0.26)	3.7% (0.43)	2.4% (0.36)	
		Partner	16.2% (0.91)	13.6% (0.78)	0.8% (0.37)	2.3% (0.29)	1.9% (0.26)	2.2% (0.3)	2.9% (0.35)	0.3% (0.11)
	Madrasah/Islamic	Comparison	19.7% (1.08)	18.3% (1.55)		0.9% (0.3)	1.4% (0.39)	3.9% (0.66)	2.4% (0.59)	
		Partner	13.7% (1.08)	16.4% (1.77)	1.9% (0.94)	1.5% (0.28)	0.7% (0.13)	1.3% (0.29)	2.2% (0.76)	0.3% (0.13)
Home Language	Indonesian	Comparison	17.7% (0.99)	15.1% (0.99)		1.7% (0.25)	1.4% (0.26)	3.4% (0.49)	1.9% (0.42)	
		Partner	14.3% (1.13)	11.6% (1.01)	1.7% (0.58)	1.7% (0.27)	0.9% (0.25)	1.8% (0.29)	2.1% (0.42)	0.1% (0.07)
	Other	Comparison	18.4% (0.84)	20.8% (1.1)		2.2% (0.34)	2.1% (0.38)	4.1% (0.57)	3.2% (0.45)	
		Partner	17.4% (0.86)	18% (1.1)	0.2% (0.01)	2.7% (0.41)	3% (0.33)	2.2% (0.37)	3.8% (0.52)	0.5% (0.19)
Have Books at Home	Yes	Comparison	16.7% (0.74)	15.7% (0.98)		1.3% (0.21)	1.7% (0.31)	1.9% (0.37)	2.8% (0.51)	
		Partner	14.5% (0.86)	12.8% (1.04)	0.5% (0.17)	1.8% (0.27)	1.3% (0.2)	1.1% (0.2)	1.8% (0.3)	0% (0)
	No	Comparison	22.8% (1.32)	20.5% (1.13)		3.1% (0.44)	1.7% (0.3)	5.7% (0.66)	2% (0.32)	
		Partner	20.5% (1.31)	16.1% (1.04)	2.7% (1.16)	2.6% (0.39)	2.1% (0.42)	3.1% (0.46)	4.2% (0.7)	0.6% (0.2)
Attend Pre-school	Yes	Comparison	16.6% (0.68)	14.9% (0.76)		1.3% (0.19)	1.5% (0.22)	2.6% (0.34)	2.1% (0.33)	
		Partner	13.2% (0.79)	12.7% (0.8)	1.1% (0.39)	1.3% (0.18)	1.4% (0.19)	1.3% (0.2)	2.6% (0.34)	0.3% (0.09)
	No	Comparison	25.1% (1.9)	30.4% (1.99)		5.6% (0.84)	2.9% (0.85)	11.4% (1.64)	4.9% (1.02)	
		Partner	27.4% (2.05)	23.4% (1.97)	2.1% (1.7)	7% (1.29)	3.2% (1.04)	8.1% (1.48)	4.4% (0.75)	0% (0)
Parents Read to Student	Yes	Comparison	18.9% (0.92)	19.9% (1.02)		1.8% (0.24)	2.2% (0.35)	4.6% (0.58)	2.5% (0.49)	
		Partner	15.7% (1.05)	17% (1.12)	1.9% (0.75)	2.3% (0.36)	2.2% (0.31)	1.8% (0.35)	3% (0.52)	0.5% (0.2)
	No	Comparison	17.1% (0.93)	14.6% (1.03)		2.1% (0.33)	1.3% (0.27)	3% (0.49)	2.4% (0.39)	
		Partner	15.5% (1.06)	10.6% (0.84)	0.5% (0.21)	1.8% (0.29)	1.2% (0.26)	2% (0.3)	2.4% (0.41)	0.1% (0.03)

Table K.33. Mean Scores by Demographic Trait for 80%+ on Reading Comprehension, Overall

Demographic	Demographic Level	Sampled Group	Mean (SE)		
			Baseline	Midline – C1 & C2 Only	Endline
Gender	Male	Comparison	45% (0.89)	62.9% (0.85)	63.5% (0.84)
		Partner	52.9% (0.91)	68.6% (0.9)	68.4% (0.86)
	Female	Comparison	51.7% (0.83)	70.8% (0.86)	73.4% (0.79)
		Partner	59.7% (0.94)	75.5% (0.92)	80.4% (0.7)
School Location	Urban	Comparison	56.7% (0.96)	74.2% (0.93)	76.4% (0.88)
		Partner	59.9% (0.99)	75.7% (0.93)	77.8% (0.8)
	Rural	Comparison	41.8% (0.79)	59.5% (0.78)	61.2% (0.77)
		Partner	50.8% (0.73)	65.7% (0.77)	68.9% (0.71)
School Type	Public	Comparison	46.5% (0.68)	65.9% (0.68)	68.3% (0.64)
		Partner	55.1% (0.76)	72.2% (0.72)	73.2% (0.65)
	Private	Comparison	56.5% (1.38)	70.7% (1.28)	68.7% (1.32)
		Partner	61.1% (1.19)	70.8% (1.4)	78.3% (1.07)
School Faith	Secular	Comparison	47.3% (0.69)	67% (0.7)	67.9% (0.67)
		Partner	57.1% (0.77)	72.1% (0.74)	74.2% (0.65)
	Madrasah/Islamic	Comparison	51.2% (1.32)	65.9% (1.21)	70% (1.13)
		Partner	53.4% (1.26)	71.5% (1.3)	74.2% (1.1)
Home Language	Indonesian	Comparison	49.5% (0.97)	70.2% (0.91)	71.3% (0.85)
		Partner	59.2% (0.96)	74.5% (0.86)	75.3% (0.78)
	Other	Comparison	46.9% (0.8)	62.4% (0.83)	64.4% (0.81)
		Partner	51.9% (0.85)	67.2% (0.96)	72.2% (0.77)
Have Books at Home	Yes	Comparison	49.5% (0.78)	70% (0.79)	75.5% (0.82)
		Partner	58.9% (0.82)	74.7% (0.81)	80.4% (0.73)
	No	Comparison	45.6% (1.11)	61.6% (1.08)	60.4% (0.92)
		Partner	50.1% (1.15)	67.1% (1.12)	65.4% (0.93)
Attend Pre-school	Yes	Comparison	52.3% (0.69)	70% (0.64)	71.5% (0.63)
		Partner	59.5% (0.73)	74.8% (0.68)	76.4% (0.59)
	No	Comparison	28.8% (1.31)	45.8% (1.93)	45.2% (1.8)
		Partner	37.4% (1.52)	49.2% (1.94)	50.1% (1.97)
Parents Read to Student	Yes	Comparison	43.6% (0.87)	62.2% (0.93)	64.9% (0.89)
		Partner	54.9% (0.93)	69.1% (0.99)	70.7% (0.89)
	No	Comparison	54% (0.95)	70.9% (0.86)	71.7% (0.86)
		Partner	57.7% (0.98)	74.2% (0.87)	77% (0.75)

Table K.34. Mean Scores by Demographic Trait for 80%+ on Reading Comprehension, Cohort

Subtask	Sampled Group		Mean (SE)							
			2012	2013	2014		2015	2016		
			Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Gender	Male	Comparison	40.9% (1.06)	48.6% (1.39)		63.8% (1.12)	62.1% (1.25)	61.6% (1.07)	65.3% (1.29)	
		Partner	48.1% (1.36)	51.8% (1.51)	71% (1.95)	66.7% (1.21)	70.5% (1.34)	66.5% (1.28)	69% (1.39)	71.8% (2.03)
	Female	Comparison	47.1% (1.08)	55.9% (1.24)		72% (1.02)	69.7% (1.37)	72.5% (0.98)	74.2% (1.23)	
		Partner	52.6% (1.43)	59.6% (1.59)	79.4% (1.75)	75.8% (1.33)	75.2% (1.27)	79.7% (1.06)	79.7% (1.15)	84.6% (1.58)
School Location	Urban	Comparison	52.1% (1.1)	61.6% (1.6)		74.3% (1.01)	74.2% (1.55)	75.5% (1.02)	77.3% (1.44)	
		Partner	54.4% (1.52)	59% (1.58)	82.1% (1.76)	76% (1.28)	75.4% (1.34)	78.6% (1.18)	76.7% (1.28)	78.7% (2.03)
	Rural	Comparison	37% (1.04)	45.7% (1.15)		61.2% (1.13)	58.1% (1.08)	58.2% (1.03)	63.6% (1.12)	
		Partner	44.3% (0.98)	49.8% (1.24)	68.6% (1.93)	62.1% (0.99)	68.9% (1.15)	63.5% (1.05)	70% (1.19)	77.6% (1.62)
School Type	Public	Comparison	43.6% (0.85)	49.1% (1.03)		68.3% (0.85)	63.8% (1.04)	67.9% (0.8)	68.7% (0.98)	
		Partner	50% (1.11)	55.4% (1.22)	74.6% (1.65)	71.9% (1.01)	72.4% (1.03)	72.9% (0.95)	73.1% (1.01)	74.6% (1.74)
	Private	Comparison	45.7% (1.61)	67.2% (2.24)		66.1% (1.58)	75.3% (2.01)	62.9% (1.68)	74.8% (2.07)	
		Partner	51.6% (1.71)	56.8% (2.27)	76.5% (2.14)	66.7% (1.85)	74.7% (2.09)	72.7% (1.5)	79.3% (2.04)	83% (1.92)
School Faith	Secular	Comparison	44.5% (0.87)	50% (1.06)		68.8% (0.86)	65.4% (1.08)	68.1% (0.83)	67.7% (1.05)	
		Partner	51.2% (1.17)	56.9% (1.26)	76.7% (1.42)	70.4% (1.08)	73.6% (1.02)	72.6% (1)	74.4% (1.01)	77.9% (1.51)
	Madrasah/Islamic	Comparison	41.8% (1.49)	58% (2)		64.6% (1.57)	66.9% (1.77)	62.4% (1.47)	75.7% (1.65)	
		Partner	47.3% (1.77)	51.4% (2.19)	72.1% (2.8)	72.8% (1.61)	70.1% (2.08)	73.4% (1.52)	73% (2)	78.5% (2.42)
Home Language	Indonesian	Comparison	40.6% (1.2)	56.9% (1.46)		68.9% (1.11)	71.2% (1.37)	69% (1.12)	73.1% (1.24)	
		Partner	51% (1.55)	61.3% (1.56)	74.4% (1.7)	72.5% (1.3)	76.4% (1.13)	73.3% (1.24)	77.4% (1.2)	75.2% (1.85)
	Other	Comparison	47.2% (0.98)	46.6% (1.26)		66.8% (1.08)	57.9% (1.27)	64.6% (1)	64.2% (1.3)	
		Partner	49.2% (1.04)	47.7% (1.5)	77.1% (2.03)	68.4% (1.03)	65.9% (1.62)	72.2% (1)	68.2% (1.4)	82.6% (1.71)
Have Books at Home	Yes	Comparison	44.4% (0.9)	55.9% (1.34)		71.2% (0.96)	68.8% (1.26)	75% (1.04)	76% (1.24)	
		Partner	51.3% (1.14)	61.6% (1.52)	78.4% (1.47)	74.5% (1.07)	74.9% (1.23)	79.3% (1.13)	80.5% (1.13)	83% (1.69)
	No	Comparison	42.5% (1.45)	47% (1.48)		61.7% (1.4)	61.5% (1.56)	58.3% (1.12)	62.4% (1.43)	
		Partner	45.3% (1.74)	47.8% (1.63)	68.2% (2.68)	64.4% (1.7)	69.5% (1.47)	64.4% (1.32)	64.4% (1.61)	71.2% (2.04)
Attend Pre-school	Yes	Comparison	47.9% (0.86)	56.4% (1.07)		70.8% (0.8)	69.3% (0.99)	71% (0.8)	72% (0.95)	
		Partner	53.2% (1.09)	58.9% (1.22)	77.8% (1.41)	74.5% (0.96)	75.1% (0.97)	75.4% (0.89)	75.7% (0.95)	81% (1.34)
	No	Comparison	24.3% (1.66)	32.6% (1.96)		50.6% (2.37)	40.7% (3.15)	40.4% (2.35)	50.5% (2.75)	
		Partner	36% (2.34)	35.9% (2.21)	51.3% (3.76)	45.3% (2.58)	53.5% (2.93)	48.6% (2.81)	53.7% (3.33)	45.9% (4.75)
Parents Read to Student	Yes	Comparison	39.1% (1.07)	47.2% (1.29)		65.5% (1.16)	59% (1.46)	62.4% (1.11)	66.9% (1.35)	
		Partner	49% (1.43)	54.4% (1.48)	74.8% (1.8)	70.4% (1.28)	67.6% (1.53)	70.2% (1.31)	72.2% (1.37)	67.7% (2.43)
	No	Comparison	49.1% (1.13)	59.4% (1.54)		70.2% (1.06)	71.6% (1.31)	70.9% (1.07)	72.4% (1.33)	
		Partner	51.6% (1.39)	57.2% (1.73)	75.8% (1.96)	71.7% (1.3)	76.4% (1.18)	75% (1.13)	75.7% (1.28)	85.3% (1.36)

Table K.35. Mean ORF Scores by Demographic Trait for Students with 80%+ on Reading Comprehension, Overall

Demographic	Demographic Level	Sampled Group	Mean (SE)		
			Baseline	Midline – C1 & C2 Only	Endline
Gender	Male	Comparison	71 (0.7)	72.8 (0.63)	74.5 (0.58)
		Partner	73.7 (0.59)	72.7 (0.54)	75.9 (0.55)
	Female	Comparison	76.9 (0.62)	76.4 (0.5)	79.3 (0.54)
		Partner	77.8 (0.55)	78.8 (0.51)	81.3 (0.45)
School Location	Urban	Comparison	78.8 (0.67)	78.6 (0.63)	81.2 (0.59)
		Partner	78.2 (0.55)	77.9 (0.52)	80 (0.48)
	Rural	Comparison	69.2 (0.63)	70 (0.45)	72.3 (0.51)
		Partner	71.7 (0.51)	71.7 (0.42)	76.6 (0.48)
School Type	Public	Comparison	73.2 (0.51)	74 (0.46)	76 (0.44)
		Partner	75.3 (0.46)	75.5 (0.41)	78.4 (0.4)
	Private	Comparison	77.5 (1.07)	77.8 (0.78)	81.8 (0.84)
		Partner	78.2 (0.74)	77.5 (0.84)	80 (0.74)
School Faith	Secular	Comparison	73.8 (0.52)	74.5 (0.47)	76.7 (0.46)
		Partner	76.5 (0.47)	75.8 (0.43)	79 (0.41)
	Madrasah/Islamic	Comparison	74.9 (1.02)	75.4 (0.71)	78 (0.75)
		Partner	73.8 (0.78)	75.8 (0.75)	78.1 (0.7)
Home Language	Indonesian	Comparison	74.2 (0.69)	74.7 (0.59)	76.6 (0.56)
		Partner	76.1 (0.54)	77.1 (0.49)	79.2 (0.48)
	Other	Comparison	73.9 (0.67)	74.6 (0.51)	77.7 (0.55)
		Partner	75.4 (0.6)	73.2 (0.57)	77.9 (0.51)
Have Books at Home	Yes	Comparison	75.4 (0.58)	76.1 (0.51)	80.1 (0.54)
		Partner	77.2 (0.47)	76.6 (0.49)	80.7 (0.46)
	No	Comparison	71.1 (0.93)	72.2 (0.72)	72.7 (0.57)
		Partner	72.3 (0.8)	74.2 (0.64)	75.2 (0.59)
Attend Pre-school	Yes	Comparison	75 (0.49)	75.4 (0.42)	77.6 (0.42)
		Partner	76.8 (0.42)	76.3 (0.39)	79.1 (0.37)
	No	Comparison	66.2 (1.41)	68 (1.77)	70.2 (1.3)
		Partner	67.2 (1.31)	69.5 (1.23)	71.9 (1.26)
Parents Read to Student	Yes	Comparison	81.4 (0.76)	81.3 (0.71)	83.6 (0.64)
		Partner	80.7 (0.61)	82.6 (0.62)	84.1 (0.58)
	No	Comparison	83.4 (0.8)	84.4 (0.56)	87.1 (0.6)
		Partner	84.7 (0.64)	85.4 (0.56)	87.3 (0.52)

Table K.36. Mean ORF Scores by Demographic Trait for Students with 80%+ on Reading Comprehension, Cohort

Subtask	Sampled Group		Mean (SE)							
			2012	2013	2014		2015	2016		
			Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Gender	Male	Comparison	66.7 (0.79)	74.2 (1.05)		70.2 (0.73)	75.1 (1.01)	73.2 (0.76)	75.7 (0.86)	
		Partner	71.7 (0.78)	74.7 (1.1)	75.8 (1.07)	73 (0.77)	72.5 (0.77)	74.5 (0.83)	77.6 (0.9)	75.2 (1.22)
	Female	Comparison	75.6 (0.72)	77.9 (0.95)		75.7 (0.57)	77.1 (0.81)	80.1 (0.64)	78.5 (0.84)	
		Partner	76.5 (0.8)	78.7 (0.97)	78.3 (0.99)	79.3 (0.71)	78.2 (0.73)	79.4 (0.68)	82.3 (0.71)	83.5 (1.13)
School Location	Urban	Comparison	75 (0.7)	82 (1.12)		76.4 (0.65)	80.7 (1.08)	80.4 (0.66)	82.1 (0.99)	
		Partner	77.7 (0.78)	78.1 (0.97)	79.9 (1.04)	79.6 (0.71)	76.2 (0.77)	78.4 (0.73)	81.3 (0.75)	81.4 (1.21)
	Rural	Comparison	66.9 (0.82)	70.7 (0.88)		68.9 (0.62)	71 (0.66)	72.2 (0.74)	72.4 (0.69)	
		Partner	67.9 (0.66)	74.1 (0.98)	74 (1.01)	68.9 (0.54)	74 (0.62)	74.4 (0.61)	77.7 (0.84)	77.9 (1.14)
School Type	Public	Comparison	71 (0.6)	74.9 (0.79)		73 (0.53)	75 (0.74)	76.4 (0.54)	75.8 (0.69)	
		Partner	73.5 (0.61)	76.9 (0.83)	75.3 (0.94)	76.3 (0.57)	74.6 (0.6)	76.5 (0.59)	80.2 (0.64)	78.7 (1.02)
	Private	Comparison	72.7 (1.16)	80.7 (1.59)		73.9 (0.76)	81.1 (1.31)	79.4 (1.19)	83.8 (1.16)	
		Partner	77.9 (1.28)	75.9 (1.41)	80.3 (1.14)	76 (1.24)	78.7 (1.14)	80.2 (1.15)	79.1 (1.26)	80.8 (1.36)
School Faith	Secular	Comparison	71.5 (0.6)	75.7 (0.81)		73.5 (0.54)	75.4 (0.78)	77 (0.57)	76.5 (0.73)	
		Partner	73.8 (0.64)	78.5 (0.84)	77.5 (0.84)	75.8 (0.6)	75.8 (0.61)	76 (0.62)	81.3 (0.65)	80 (0.94)
	Madrasah/Islamic	Comparison	70.6 (1.17)	77.1 (1.41)		71.5 (0.75)	78.3 (1.12)	76.3 (0.92)	79 (1.04)	
		Partner	75.4 (1.09)	70.7 (1.45)	76.4 (1.43)	77.5 (1.03)	73.8 (1.09)	79.5 (1.05)	76 (1.15)	78.9 (1.62)
Home Language	Indonesian	Comparison	71.3 (0.86)	75.9 (0.97)		71.7 (0.67)	77.1 (0.9)	76.3 (0.72)	76.9 (0.83)	
		Partner	74.6 (0.82)	77.6 (0.96)	75.4 (0.91)	77.6 (0.73)	76.5 (0.67)	77.5 (0.78)	80.9 (0.71)	78.7 (1.18)
	Other	Comparison	71.4 (0.68)	76.4 (1.13)		74.8 (0.61)	74.4 (0.85)	77.7 (0.68)	77.8 (0.87)	
		Partner	73.4 (0.72)	75.3 (1.15)	80.6 (1.25)	73.6 (0.64)	72.7 (0.96)	76.3 (0.63)	78.2 (0.97)	81 (1.2)
Have Books at Home	Yes	Comparison	72.3 (0.64)	78.3 (0.95)		74.2 (0.54)	78 (0.87)	79.1 (0.68)	81 (0.83)	
		Partner	75.4 (0.64)	78.6 (0.93)	78.8 (0.89)	77.6 (0.68)	75.6 (0.71)	78.4 (0.68)	81.7 (0.72)	83.9 (1.14)
	No	Comparison	67.7 (1.02)	72.6 (1.24)		70.7 (0.91)	73.2 (1.05)	73.8 (0.75)	71.7 (0.84)	
		Partner	67.9 (1.11)	73.8 (1.24)	73 (1.4)	73.3 (0.95)	75 (0.87)	74.9 (0.91)	76.6 (0.98)	72.7 (1.17)
Attend Pre-school	Yes	Comparison	71.9 (0.56)	77.3 (0.76)		74 (0.48)	76.6 (0.67)	77.2 (0.51)	78 (0.64)	
		Partner	75.2 (0.59)	77.7 (0.78)	77.8 (0.76)	77 (0.55)	75.7 (0.56)	77.7 (0.56)	80.1 (0.59)	80.1 (0.87)
	No	Comparison	65.7 (1.88)	66.5 (1.96)		66 (1.52)	70.6 (3.41)	72.8 (2.02)	67.8 (1.65)	
		Partner	66.3 (1.96)	67.7 (2.14)	68.7 (2.76)	67.8 (1.94)	71 (1.57)	67.3 (1.87)	77.8 (1.89)	70.8 (2.54)
Parents Read to Student	Yes	Comparison	77 (0.82)	84.3 (1.11)		79.2 (0.71)	83.5 (1.23)	84 (0.83)	83.3 (0.94)	
		Partner	81.2 (0.92)	82.3 (1.03)	75.6 (1.03)	83.4 (0.85)	81.6 (0.9)	81.5 (0.78)	88 (0.95)	78.6 (1.43)
	No	Comparison	80.5 (0.81)	86 (1.31)		82.3 (0.69)	86.2 (0.85)	85.3 (0.72)	88.8 (0.93)	
		Partner	82.5 (0.83)	90.2 (1.24)	78.6 (1.08)	84.8 (0.83)	85.9 (0.75)	87.6 (0.79)	90.1 (0.85)	80.2 (1.09)

Table K.37. Mean Scores for Students with 80%+ on Reading Comprehension

Subtask	Sampled Group	Mean (SE)							
		2012	2013	2014		2015	2016		
		Baseline C1	Baseline C2	Baseline C3	Midline C1	Midline C2	Endline C1	Endline C2	Endline C3
Letter-Name Knowledge (CLPM)	Comparison	92.4 (0.58)	92.1 (0.67)		94.9 (0.46)*	94 (0.7)	97.1 (0.54)*	94.7 (0.62)*	
	Partner	92.8 (0.61)	91.1 (0.62)	91.9 (0.81)	93.1 (0.56)	91.9 (0.49)	95.3 (0.49)*	96.4 (0.65)*	95 (0.89)*#
Familiar Word Reading (CWPM)	Comparison	79.4 (0.56)	78.3 (0.7)		79.2 (0.46)	79.7 (0.71)	81.2 (0.52)	79.9 (0.63)	
	Partner	81.6 (0.54)*	78.5 (0.71)	78.5 (0.73)	80.6 (0.57)	79.5 (0.52)	79.7 (0.52)#	83 (0.59)*	81.7 (0.92)*
Invented Word Decoding (CIWPM)	Comparison	41 (0.36)	40.6 (0.48)		45.6 (0.3)*	47.2 (0.56)*	47.1 (0.36)*	46.3 (0.44)*	
	Partner	41.4 (0.4)	39.8 (0.46)	46.7 (0.54)*	46.7 (0.36)*	45.9 (0.37)*	45.9 (0.38)*	47.6 (0.4)*	47.4 (0.63)#
Oral Reading Fluency (ORF)	Comparison	71.3 (0.53)	76.1 (0.71)		73.1 (0.46)*	76.1 (0.65)	76.9 (0.49)*	77.2 (0.6)	
	Partner	74.1 (0.56)*	76.8 (0.73)	77.2 (0.73)	76.3 (0.52)*	75.3 (0.53)	77.1 (0.53)*	80 (0.57)*	79.6 (0.83)*#
Reading Comp. (5)	Comparison	4.4 (0.02)	4.5 (0.02)		4.6 (0.01)*	4.7 (0.02)*	4.6 (0.01)*	4.6 (0.01)*	
	Partner	4.4 (0.01)	4.5 (0.02)	4.6 (0.02)*	4.6 (0.01)*	4.7 (0.01)*	4.6 (0.01)*	4.7 (0.01)*	4.7 (0.02)#
Listening Comp. (3)	Comparison	1.9 (0.03)	1.8 (0.03)		2.7 (0.01)*	2.7 (0.02)*	2.6 (0.02)*	2.7 (0.02)*	
	Partner	1.9 (0.02)	1.9 (0.03)	2.7 (0.02)*	2.7 (0.01)*	2.7 (0.02)*	2.7 (0.02)*	2.7 (0.02)*	2.7 (0.02)#

+ Significant difference between partner and comparison sampled group at time point, $\alpha = 0.01$

* Significant difference between baseline and mid-/endline within partner or comparison sampled group, $\alpha = 0.01$

Significant difference-in-difference between partner and comparison sampled group growth over time, $\alpha = 0.01$

Baseline and Endline Subtask Distributions by Cohort

Figure K.3. Letter-Name Knowledge (CLPM) Distributions by Cohort

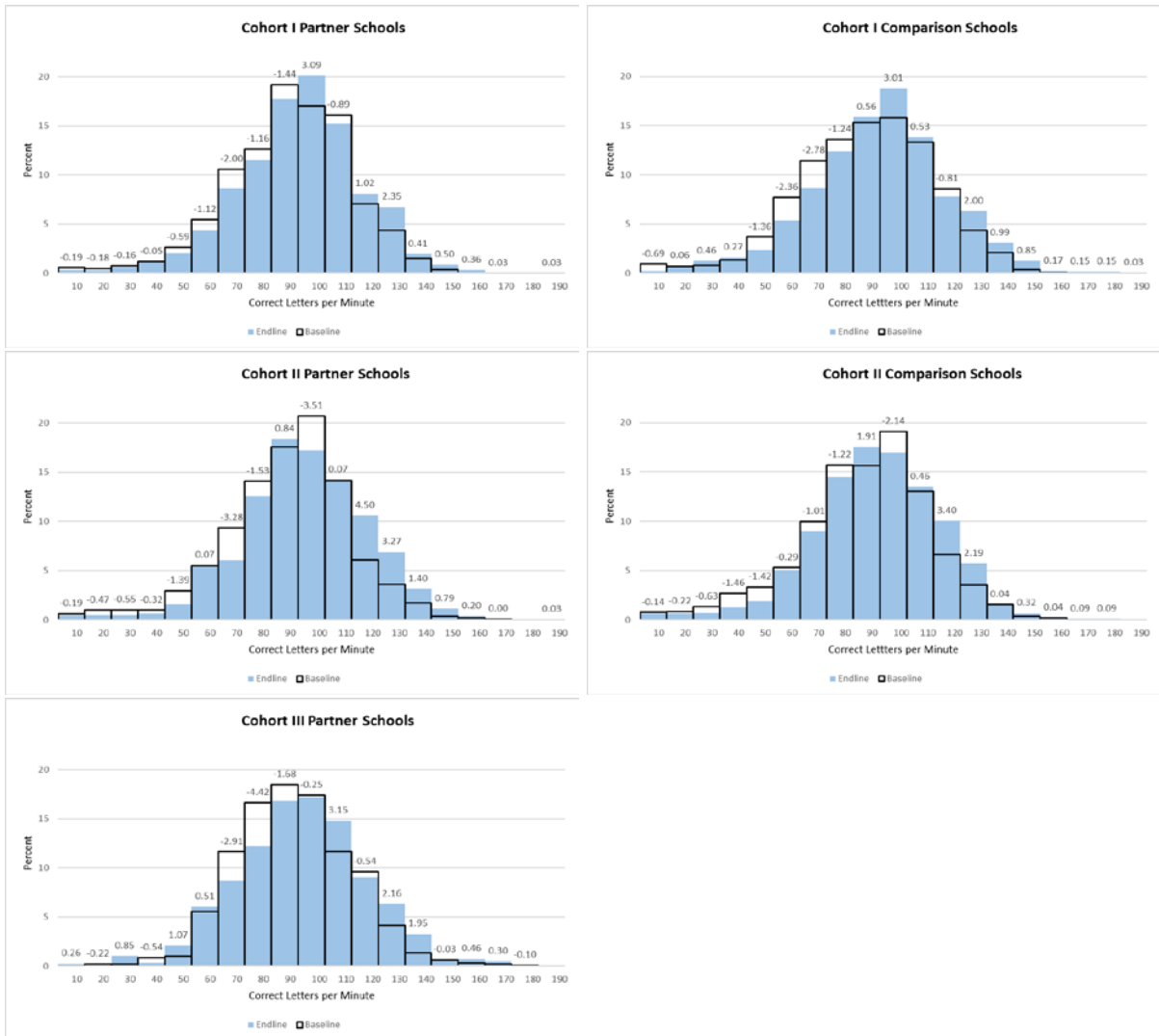


Figure K.4. Letter-Name Knowledge (CLPM) Boxplot Distribution by Cohort

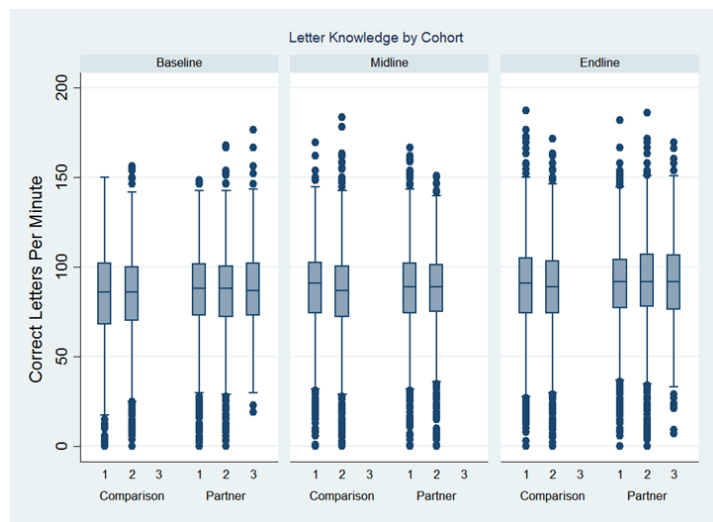


Figure K.5. Familiar Word Reading (CWPM) Distributions by Cohort

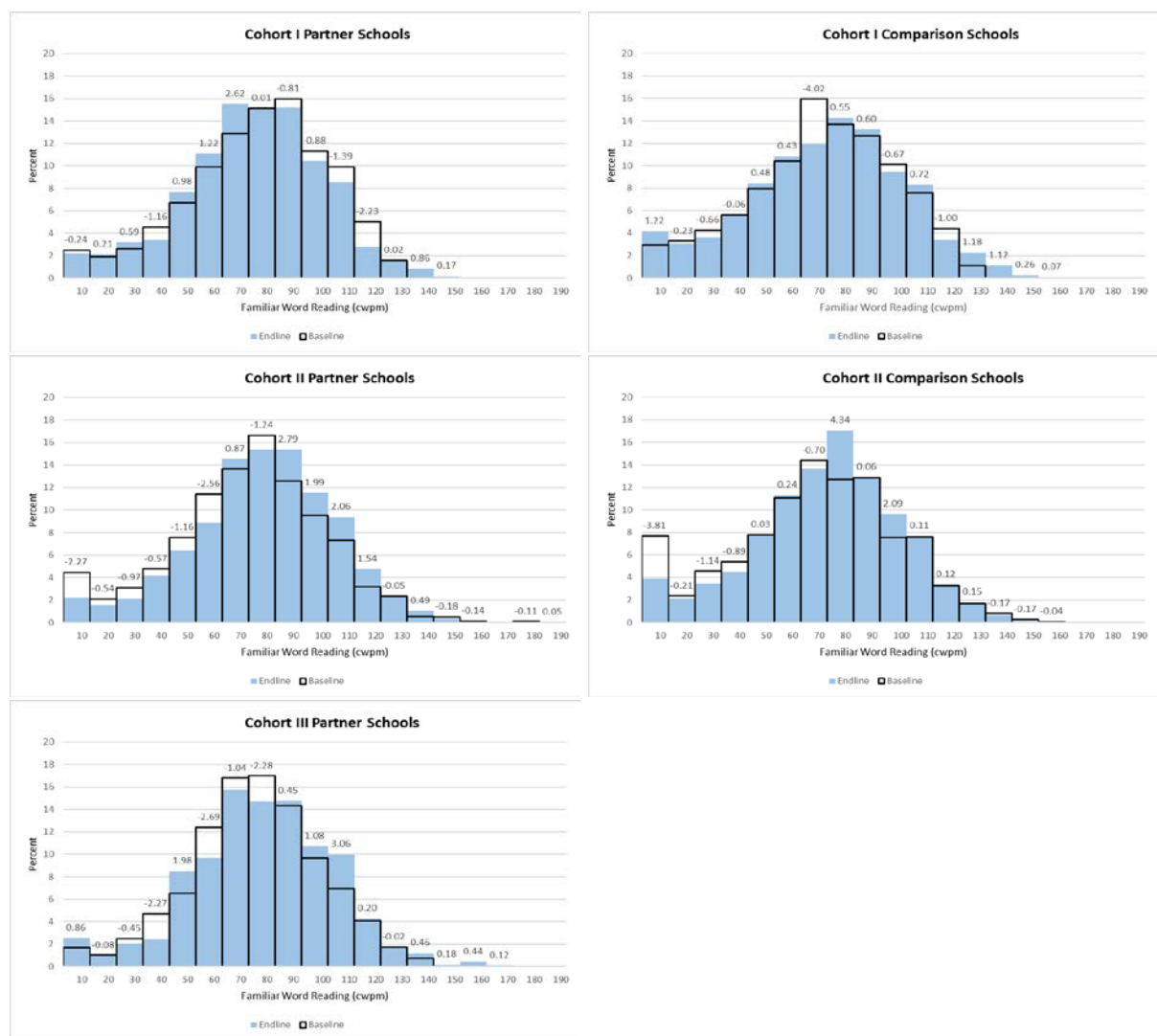


Figure K.6. Familiar Word Reading (CWPM) Boxplot Distribution by Cohort

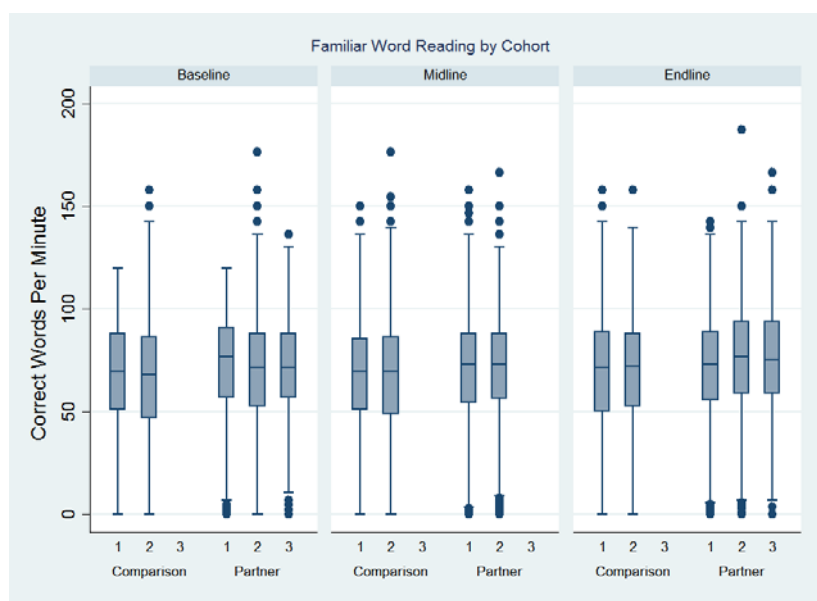


Figure K.7. Invented Word Decoding (CIWPM) Distributions by Cohort

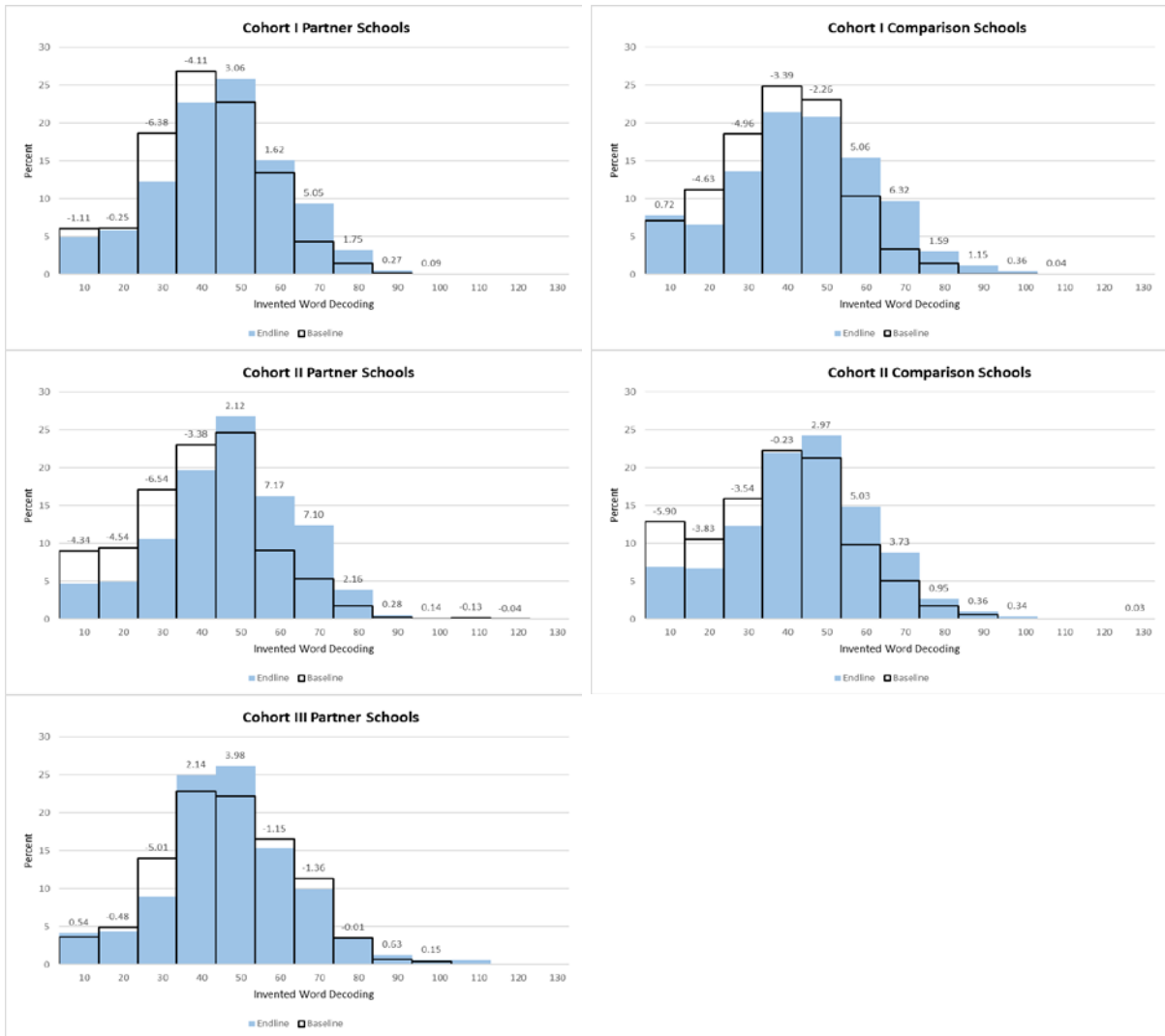


Figure K.8. Invented Word Decoding (CIWPM) Boxplot Distribution by Cohort

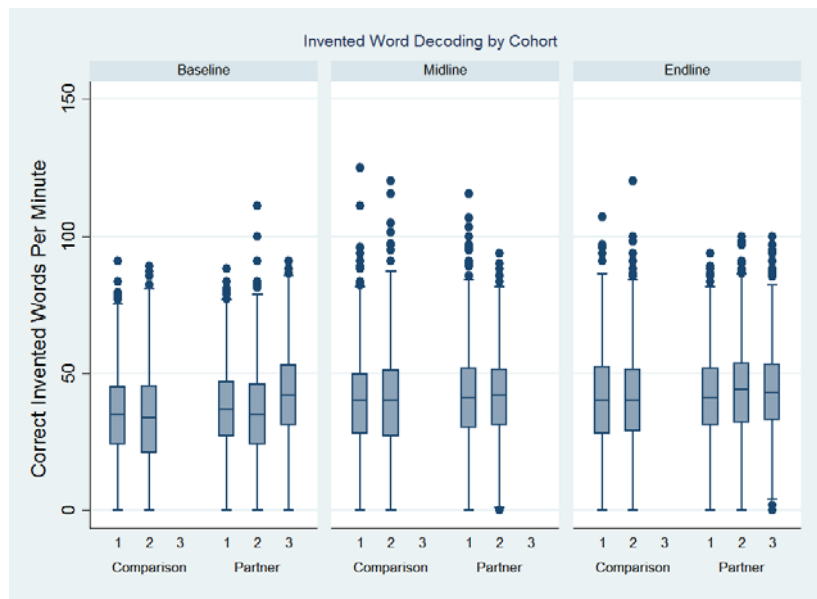


Figure K.9. Oral Reading Fluency (ORF) Distributions by Cohort

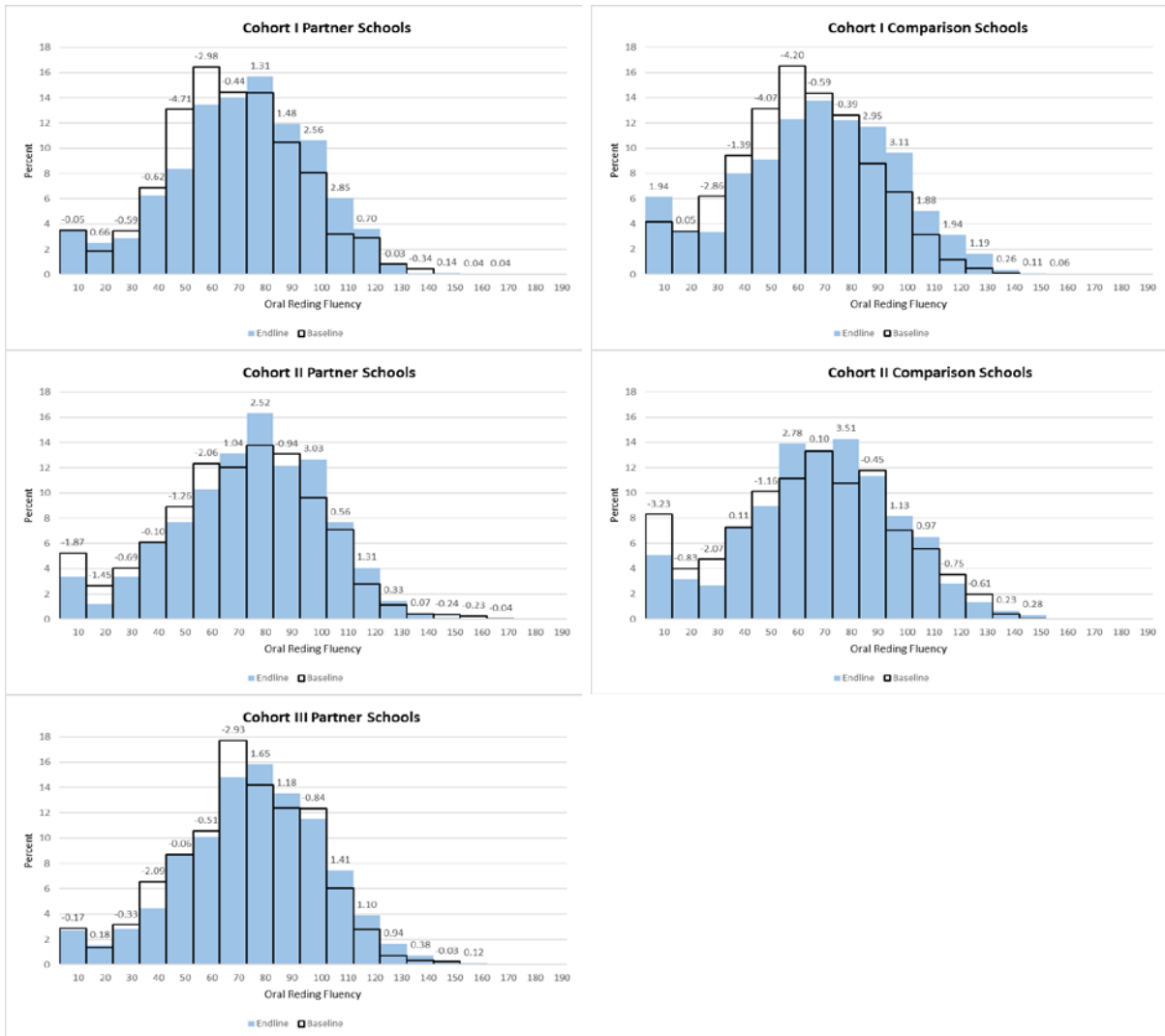


Figure K.10. Oral Reading Fluency (ORF) Boxplot Distribution by Cohort

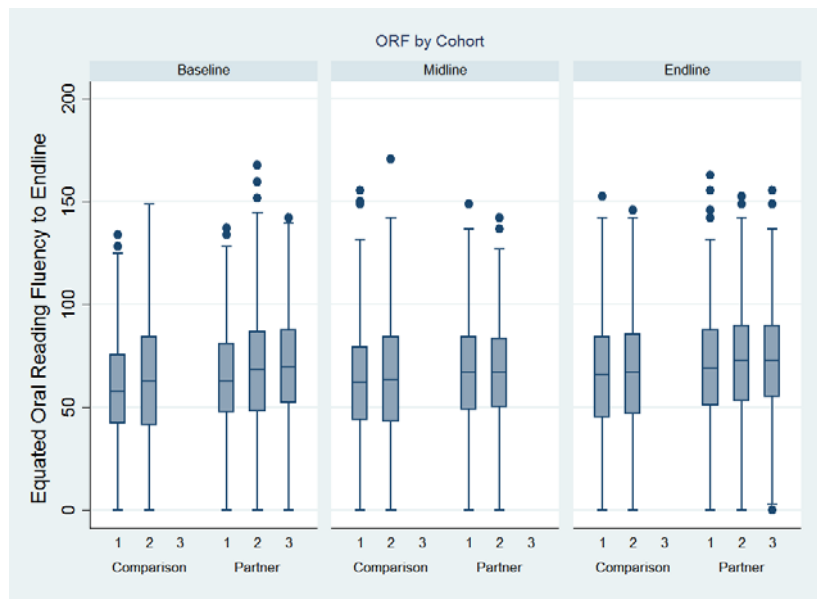


Figure K.11. Reading Comprehension Distributions by Cohort

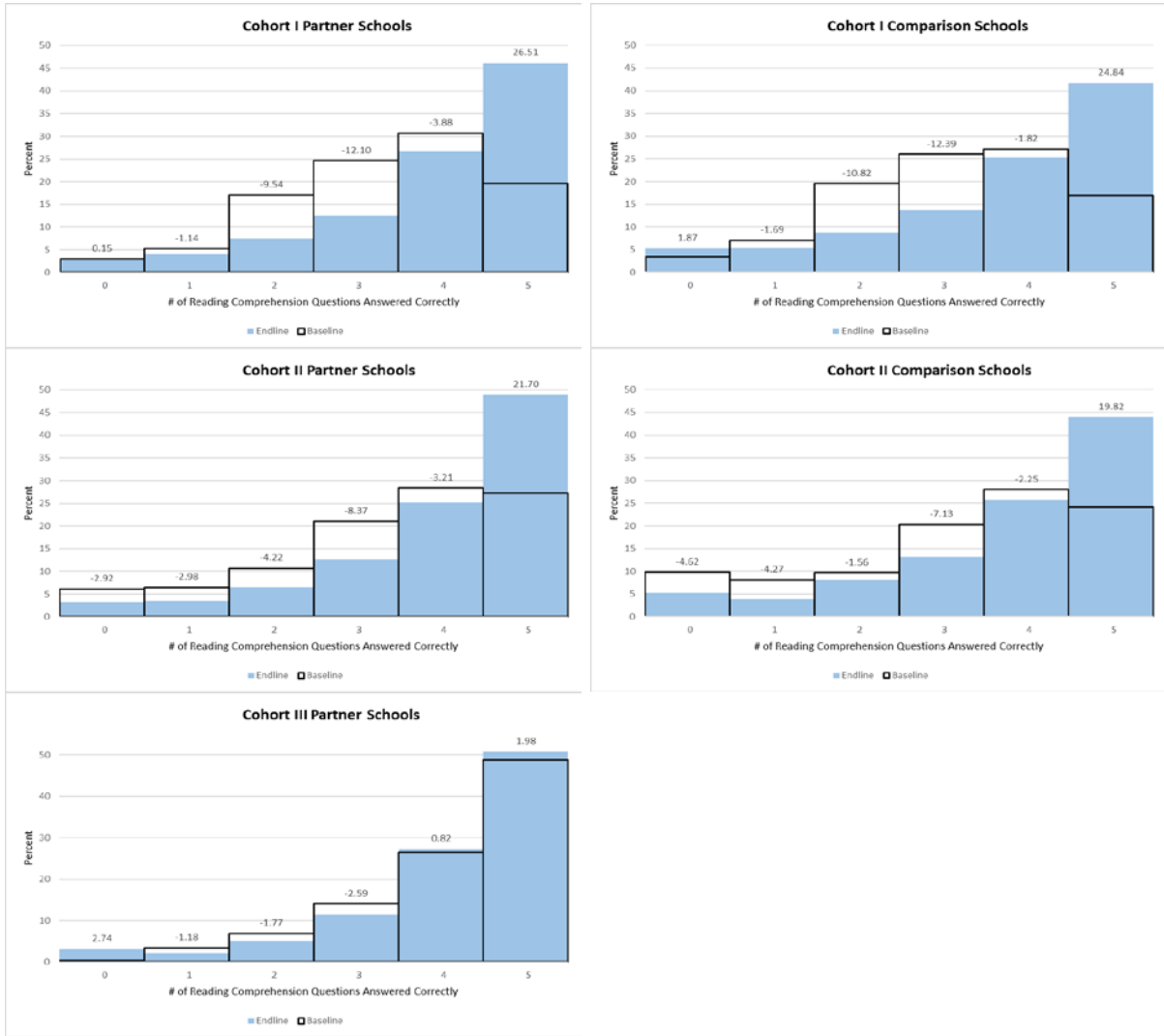


Figure K.12. Reading Comprehension Boxplot Distribution by Cohort

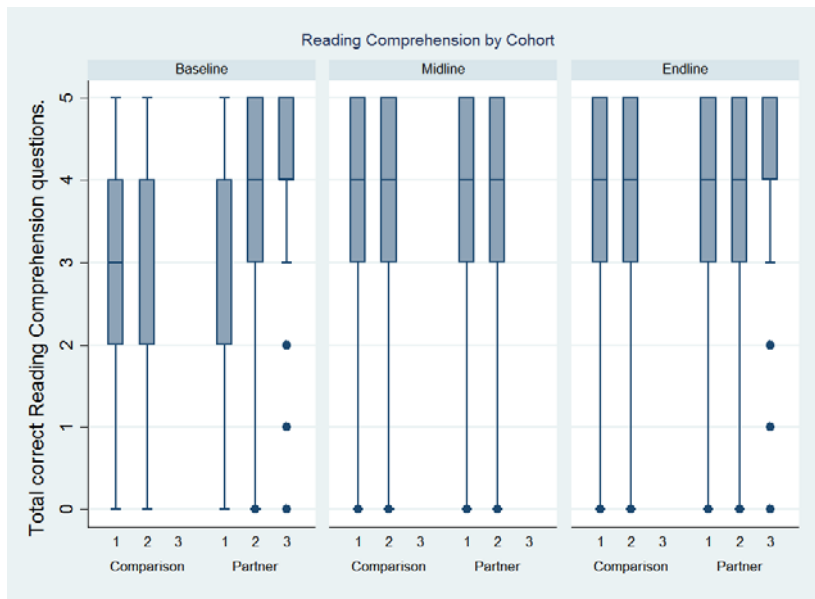


Figure K.13. Listening Comprehension Distributions by Cohort

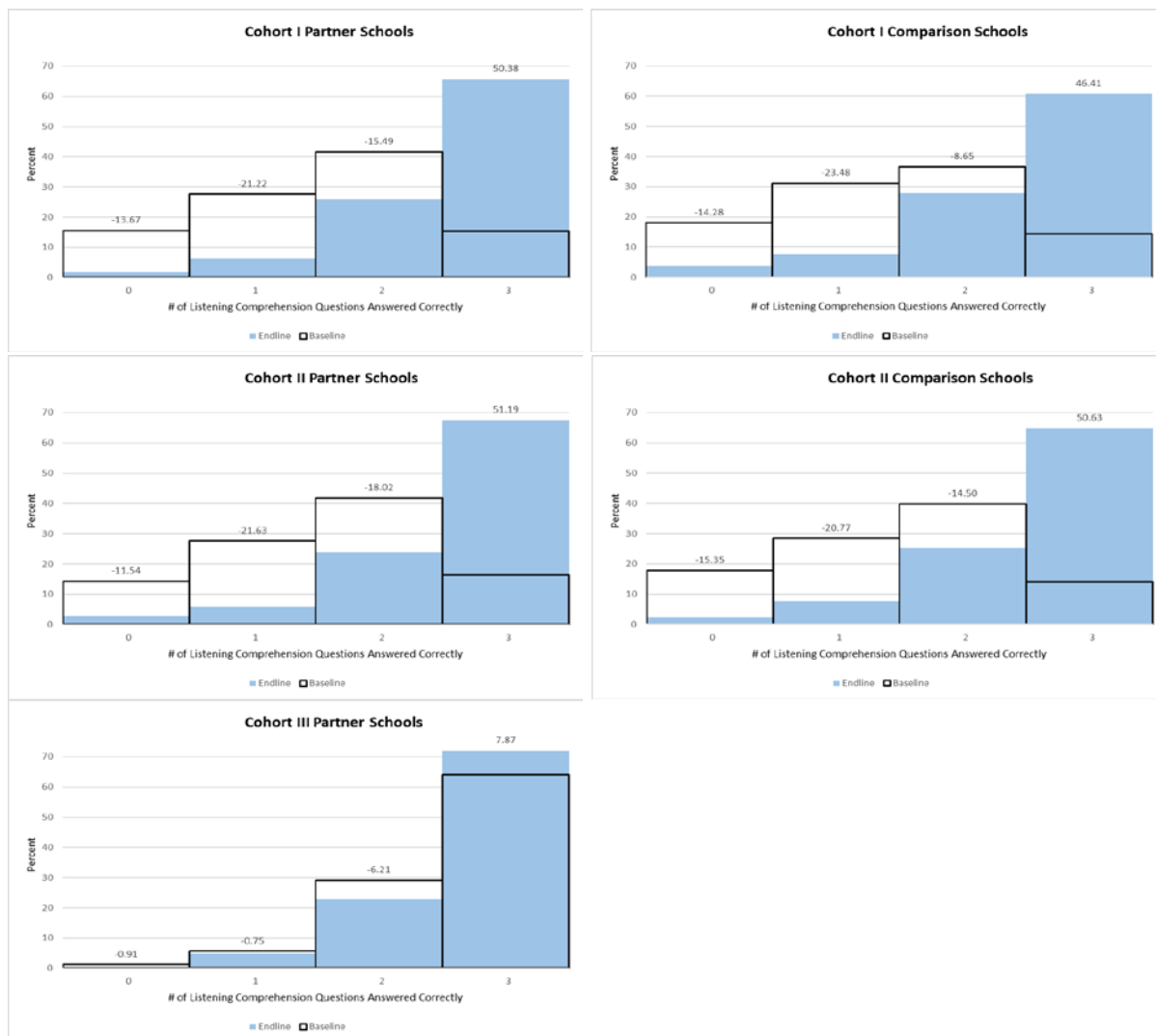
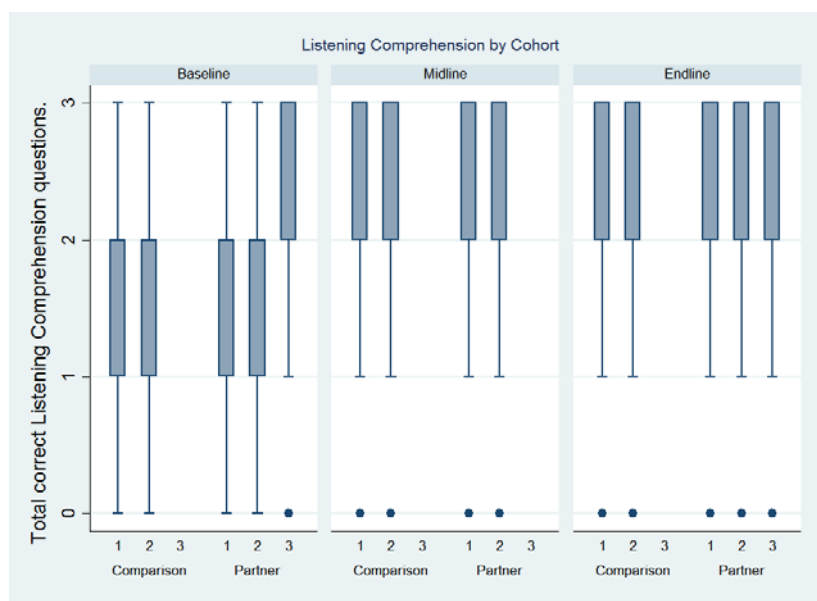


Figure K.14. Listening Comprehension Boxplot Distribution by Cohort



Regression Models

The coefficients for these models are presented in the far right columns, with the modeled variable above the coefficients. Descriptions of the coefficients are presented in the far left columns. The coefficients can be interpreted as the impact of a given variable on the subtask, controlling for location, school faith, school type, region, age, cohort, sampled group, and time. These regression models provide a way to measure the effect of the intervention over time, when other variables that affect student performance (such as school location) are held constant. For example, the last row of results demonstrates that when these listed factors are controlled for, the impact of attending pre-school increases ORF by an average of +11.3 cwpm above that of a student who did not attend pre-school in Cohort 1 (+13.6 in Cohort 2 and +7.6 in Cohort 3).

Table K.38. Linear Regression – Oral Reading Fluency

<i>Demographic Category</i>	<i>Indicator</i>	<i>Oral Reading Fluency (Cohort 1)</i>	<i>Oral Reading Fluency (Cohort 2)</i>	<i>Oral Reading Fluency (Cohort 3)</i>
Gender	Male (Ref)			
	Female	9.58**	7.38**	10.52**
Location	Rural (Ref)			
	Urban	10.41**	9.36**	6.43**
School Faith	Secular			
	Religious	-4.98**	3.05**	-1.26
School Type	Public (Ref)			
	Private	-7.14**	1.69	0.62
	Aceh (Ref)			
Region	Banten	0.97	18.69**	
	West Java	20.63**	20.16**	
	Central Java	16.61**	19.93**	
	East Java (Ref for Cohort 3)	21.5**	29.06**	
	South Sulawesi	7.58**	0.36	
	North Sumatra	8.25**	12.19**	-20.99**
Age	7 years old (Ref)			
	8 years old			
	9 years old	-0.1	-2.52	-1.36
	10+ years old	-12.43**	-14.12**	-16.03**
Sampled Group	Comparison (Ref)			
	Partner	4.47**	2.74*	3.7*
	0 (Ref)			
Time in Intervention	2	1.1	-1.34	4.62
	3		2.1	
	4	4.38**		
Time in Intervention x Sampled Group (Ref not shown)	2 Years-Full Partner	-0.19	0.28	-1.99
	3 Years-Full Partner		1.35	
	4 Years-Full Partner	-1.64		
Intercept (Constant)		40.3	39.98	67.01
Home Language	Other (Ref)			
	Indonesian	4.32**	7.91**	1.56
Have Books at Home	No (Ref)			
	Yes	5.51**	5.89**	6.74**
Parents Read to Child	No (Ref)			
	Yes	-4.16**	-5.33**	-4.47**
Attended Pre-school	No (Ref)			
	Yes	11.25**	13.64**	7.57**

* Significant at the $\alpha = 0.001$ level; ** Significant at the $\alpha = 0.0001$ level

Tables K.39 to K.41 display the odds ratios results from three separate logistic regressions, where the outcomes were: (1) ability to comprehend at least 80% of the text, (2) ability to read with fluency, and (3) inability to read a single word of connected text, respectively. The control variables are gender, location, school faith, school type, region, age, time in intervention, and sampled group. The last row of results demonstrates that when these listed factors are controlled for, a student who attended pre-school is at least twice as likely to comprehend at least 80% of the text than a student who did not attend pre-school.

Table K.39. Logistic Regression – Reading Comprehension of 80%+

<i>Demographic Category</i>	<i>Indicator</i>	Reading Comprehension 80% (COHORT 1)	Reading Comprehension 80% (COHORT 2)	Reading Comprehension 80% (COHORT 3)
Gender	Male (Ref)			
	Female	1.5**	1.41**	1.7**
Location	Rural (Ref)			
	Urban	1.69**	1.61**	1.48**
School Faith	Secular			
	Religious	0.8	0.96	0.84
School Type	Public (Ref)			
	Private	0.61**	0.82	0.98
	Aceh (Ref)			
Region	Banten	0.74**	2.93**	
	West Java	2.68**	2.51**	
	Central Java	2.34**	3.61**	
	East Java (Ref for Cohort 3)	2.36**	4.43**	1.33
	South Sulawesi	1.07	1.08	
Age	North Sumatra	0.89	1.75**	
	7 years old (Ref)			
	8 years old	1.17	1.01	
	9 years old	1.09	0.75	2.96**
Sampled Group	10+ years old	0.43**	0.44**	
	Comparison (Ref)			
	Partner	1.31**	1.04	
Time in Intervention	0 (Ref)			
	2			
	3			
	4	2.62**		4.27**
Time in Intervention x Sampled Group (Ref not shown)	2 Years-Full Partner	0.9	0.48**	0.38**
	3 Years-Full Partner		1.12	
	4 Years-Full Partner	1.03		
Intercept (Constant)		0.38**	0.48**	0.25**
Home Language	Other (Ref)			
	Indonesian	1.31**	1.78**	1.06
Have Books at Home	No (Ref)			
	Yes	1.45**	1.54**	1.56**
Parents Read to Child	No (Ref)			
	Yes	0.85**	0.8**	0.66**
Attended Pre-school	No (Ref)			
	Yes	1.95**	2.44**	2.52**

* Significant at the $\alpha = 0.001$ level; ** Significant at the $\alpha = 0.0001$ level

Table K.40. Logistic Regression – Reading with Fluency and Comprehension

<i>Demographic Category</i>	<i>Indicator</i>	<i>Fluency with Comprehension (COHORT 1)</i>	<i>Fluency with Comprehension (COHORT 2)</i>	<i>Fluency with Comprehension (COHORT 3)</i>
Gender	Male (Ref)			
	Female	1.74**	1.51**	1.88**
Location	Rural (Ref)			
	Urban	1.84**	1.65**	1.58**
School Faith	Secular			
	Religious	0.78*	1.1	0.99
School Type	Public (Ref)			
	Private	0.62**	0.97	1.15
	Aceh (Ref)			
Region	Banten	0.93	2.82**	
	West Java	3.31**	2.6**	
	Central Java	2.79**	3.26**	
	East Java (Ref for Cohort 3)	3.11**	4.66**	1.04
	South Sulawesi	1.32**	0.99	
	North Sumatra	1.18	1.7**	
Age	7 years old (Ref)			
	8 years old	1.23*	0.99	
	9 years old	1.13	0.74	2.19**
	10+ years old	0.45**	0.39**	
Sampled Group	Comparison (Ref)			
	Partner	1.37**	1.07	
Time in Intervention	0 (Ref)			
	2			
	3	2.46**		
	4	2.67**		3.56**
Time in Intervention x Sampled Group (Ref not shown)	2 Years-Full Partner	0.85	0.3**	0.54**
	3 Years-Full Partner		1.12	
	4 Years-Full Partner	0.95		
Intercept (Constant)		0.19**	0.3**	0.18**
Home Language	Other (Ref)			
	Indonesian	1.27**	1.83**	1.05
Have Books at Home	No (Ref)			
	Yes	1.49**	1.59**	1.54**
Parents Read to Child	No (Ref)			
	Yes	0.83**	0.79**	0.63**
Attended Pre-school	No (Ref)			
	Yes	2.18**	2.6**	2.34**

* Significant at the $\alpha = 0.001$ level; ** Significant at the $\alpha = 0.0001$ level

Table K.41. Logistic Regression – Reading Comprehension Score of Zero

<i>Demographic Category</i>	<i>Indicator</i>	<i>Read Comp Zero Scores (COHORT 1)</i>	<i>Read Comp Zero Scores (COHORT 2)</i>	<i>Read Comp Zero Scores (COHORT 3)</i>
Gender	Male	2.03**	1.84**	2.66**
	Female (Ref)			
Location	Rural	2.62**	1.98**	1.17
	Urban (Ref)			
School Faith	Secular (Ref)			
	Religious	1.58*	1.09	1.57
School Type	Public (Ref)			
	Private	2.03**	1.34	1.29
	Aceh (Ref)			
Region	Banten	1.3	0.12**	
	West Java	0.34**	0.15**	
	Central Java	0.11**	0.03**	
	East Java (Ref for Cohort 3)	0.36**	0.02**	0.58
	South Sulawesi	0.67	0.75**	
	North Sumatra	1.18	0.33**	
Age	7 years old (Ref)			
	8 years old	0.68	0.67	
	9 years old	0.83	1.29	1.83
	10+ years old	1.64	3.8**	
	Comparison (Ref)			
Sampled Group	Partner	0.97	0.75	
	0 (Ref)			
Time in Intervention	2		0.75	
	3			
	4	1.92**		0.07**
Time in Intervention x Sampled Group (Ref not shown)	2 Years-Full Partner	0.71	0.42**	4.74
	3 Years-Full Partner		1.01	
	4 Years-Full Partner	0.61		
Intercept (Constant)		0.08**	0.42**	0.18*
Home Language	Other	2**	2.4**	1.29
	Indonesian (Ref)			
Have Books at Home	No	1.78**	1.33**	2.92**
	Yes (Ref)			
Parents Read to Child	No (Ref)			
	Yes	1.44**	1.61**	2.24**
Attended Pre-school	No	2.32**	3.43**	1.9
	Yes (Ref)			

* Significant at the $\alpha = 0.001$ level; ** Significant at the $\alpha = 0.0001$ level

Correlations

Table K.42. Correlation Estimates of Measured Elements, Overall

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	I1.R2	I1.R6	I2.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.70	1.00												
Correct Invented Words per Minute	0.61	0.83	1.00											
Oral Reading Fluency	0.60	0.88	0.85	1.00										
Reading Comp. Score (percent)	0.49	0.64	0.62	0.67	1.00									
Listening Comp. Score (Percent)	0.23	0.23	0.28	0.21	0.43	1.00								
Age	-0.01	-0.09	-0.09	-0.10	-0.07	-0.01	1.00							
Home Language	0.00	0.04	0.04	0.04	0.06	0.06	-0.05	1.00						
Books at Home	0.08	0.12	0.11	0.14	0.10	0.02	-0.03	0.07	1.00					
Parents Read at Home	-0.08	-0.11	-0.11	-0.11	-0.10	-0.06	-0.01	0.02	0.09	1.00				
Pre-school Attendance	0.15	0.18	0.18	0.20	0.22	0.14	-0.05	0.02	0.08	-0.03	1.00			
I1.R2	0.10	0.08	0.12	0.05	0.15	0.26	0.04	0.00	-0.02	-0.04	0.10	1.00		
I1.R6	0.06	0.05	0.06	0.04	0.08	0.13	0.01	-0.03	0.01	0.00	0.06	0.27	1.00	
I2.R3	0.08	0.09	0.12	0.06	0.14	0.23	0.03	0.00	-0.04	-0.03	0.09	0.34	0.18	1.00

Table K.42 displays the correlations between key EGRA subtasks and student demographic variables. The correlations are color coded, so that green indicates a positive correlation and yellow indicates no to a slight correlation. Darker shades of green indicate stronger correlations. The EGRA subtask variables are all positively correlated, and except for listening comprehension, these correlations are strong. Listening comprehension is the least correlated EGRA variable to the other EGRA subtasks; this is indicated by the light green to yellow coloration. None of the listed demographic variables appear to have a high correlation with the EGRA subtasks.

Table K.43. Correlation Estimates of Measured Elements, Overall – Baseline

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	I1.R2	I1.R6	I2.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.69	1.00												
Correct Invented Words per Minute	0.60	0.84	1.00											
Oral Reading Fluency	0.61	0.88	0.86	1.00										
Reading Comp. Score (percent)	0.45	0.56	0.52	0.60	1.00									
Listening Comp. Score (Percent)	0.26	0.30	0.30	0.32	0.45	1.00								
Age	-0.07	-0.13	-0.13	-0.11	-0.12	-0.04	1.00							
Home Language	0.01	0.04	0.04	0.04	0.07	0.08	-0.05	1.00						
Books at Home	0.08	0.12	0.11	0.11	0.09	0.08	-0.06	0.09	1.00					
Parents Read at Home	-0.06	-0.11	-0.11	-0.11	-0.09	-0.02	-0.01	0.06	0.13	1.00				
Pre-school Attendance	0.15	0.19	0.18	0.21	0.21	0.13	-0.08	0.04	0.06	-0.02	1.00			
I1.R2	0.02	0.02	0.02	0.04	0.05	0.04	-0.02	0.04	0.01	0.04	0.01	1.00		
I1.R6	0.03	0.03	0.03	0.04	0.04	0.03	0.00	0.05	0.00	0.03	0.02	0.08	1.00	
I2.R3	-0.01	0.02	0.01	0.06	0.02	-0.04	0.03	0.04	-0.04	0.04	0.01	0.10	0.00	1.00

Table K.44. Correlation Estimates of Measured Elements, Overall – Endline

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	I1.R2	I1.R6	I2.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.71	1.00												
Correct Invented Words per Minute	0.62	0.85	1.00											
Oral Reading Fluency	0.63	0.89	0.88	1.00										
Reading Comp. Score (percent)	0.52	0.70	0.67	0.75	1.00									
Listening Comp. Score (Percent)	0.22	0.23	0.21	0.26	0.38	1.00								
Age	-0.04	-0.11	-0.12	-0.12	-0.10	-0.04	1.00							
Home Language	-0.03	0.02	0.03	0.02	0.04	0.02	-0.03	1.00						
Books at Home	0.12	0.16	0.17	0.19	0.18	0.09	-0.04	0.08	1.00					
Parents Read at Home	-0.08	-0.11	-0.10	-0.12	-0.10	-0.03	0.00	0.00	0.02	1.00				
Pre-school Attendance	0.17	0.20	0.18	0.22	0.22	0.12	-0.08	0.01	0.11	-0.04	1.00			
I1.R2	0.12	0.12	0.11	0.13	0.12	0.07	0.01	-0.06	0.05	-0.03	0.14	1.00		
I1.R6	0.07	0.07	0.06	0.10	0.07	0.05	0.00	-0.09	0.06	0.02	0.09	0.23	1.00	
I2.R3	0.11	0.12	0.11	0.13	0.11	0.07	-0.03	-0.02	0.05	-0.02	0.11	0.12	0.08	1.00

Table K.45. Correlation Estimates of Measured Elements, Overall – Cohort 1

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	I1.R2	I1.R6	I2.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.67	1.00												
Correct Invented Words per Minute	0.58	0.82	1.00											
Oral Reading Fluency	0.58	0.87	0.84	1.00										
Reading Comp. Score (percent)	0.46	0.60	0.59	0.65	1.00									
Listening Comp. Score (Percent)	0.21	0.19	0.24	0.19	0.41	1.00								
Age	-0.01	-0.07	-0.07	-0.09	-0.05	0.04	1.00							
Home Language	-0.04	-0.01	-0.01	-0.02	0.00	0.03	-0.01	1.00						
Books at Home	0.06	0.11	0.09	0.14	0.08	-0.02	-0.05	0.07	1.00					
Parents Read at Home	-0.05	-0.08	-0.09	-0.10	-0.07	-0.02	0.00	0.03	0.10	1.00				
Pre-school Attendance	0.13	0.17	0.17	0.21	0.22	0.14	-0.05	0.00	0.07	-0.02	1.00			
I1.R2	0.06	0.01	0.07	0.00	0.12	0.25	0.07	0.00	-0.06	0.01	0.10	1.00		
I1.R6	0.05	0.04	0.07	0.04	0.08	0.14	0.03	-0.04	-0.02	0.01	0.09	0.27	1.00	
I2.R3	0.08	0.06	0.12	0.05	0.16	0.28	0.07	-0.03	-0.07	0.00	0.13	0.32	0.17	1.00

Table K.46. Correlation Estimates of Measured Elements, Cohort 1 – Baseline

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	I1.R2	I1.R6	I2.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.66	1.00												
Correct Invented Words per Minute	0.59	0.82	1.00											
Oral Reading Fluency	0.59	0.87	0.84	1.00										
Reading Comp. Score (percent)	0.41	0.50	0.46	0.57	1.00									
Listening Comp. Score (Percent)	0.24	0.25	0.25	0.31	0.42	1.00								
Age	-0.02	-0.04	-0.03	-0.03	-0.01	0.00	1.00							
Home Language	-0.03	0.00	-0.01	0.00	0.00	0.03	0.01	1.00						
Books at Home	0.05	0.09	0.08	0.11	0.06	0.09	0.01	0.15	1.00					
Parents Read at Home	-0.04	-0.09	-0.09	-0.10	-0.07	0.00	-0.01	0.10	0.20	1.00				
Pre-school Attendance	0.11	0.16	0.15	0.19	0.19	0.13	-0.09	0.02	0.00	-0.01	1.00			
I1.R2	-0.07	-0.06	-0.04	-0.04	0.01	0.04	0.06	0.04	0.01	0.06	0.01	1.00		
I1.R6	-0.02	0.02	0.04	0.03	-0.01	0.00	-0.02	0.01	0.01	0.04	0.05	-0.03	1.00	
I2.R3	-0.02	-0.01	-0.01	0.01	0.04	0.02	-0.04	-0.01	-0.02	0.04	0.05	0.23	-0.01	1.00

Table K.47. Correlation Estimates of Measured Elements, Cohort 1 – Endline

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	11.R2	11.R6	12.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.71	1.00												
Correct Invented Words per Minute	0.62	0.85	1.00											
Oral Reading Fluency	0.63	0.89	0.88	1.00										
Reading Comp. Score (percent)	0.53	0.70	0.67	0.76	1.00									
Listening Comp. Score (Percent)	0.21	0.22	0.21	0.26	0.38	1.00								
Age	-0.06	-0.10	-0.12	-0.12	-0.11	-0.04	1.00							
Home Language	-0.05	-0.01	-0.01	-0.01	0.00	0.00	-0.03	1.00						
Books at Home	0.12	0.15	0.16	0.18	0.18	0.11	-0.05	0.06	1.00					
Parents Read at Home	-0.07	-0.10	-0.10	-0.12	-0.09	-0.02	0.00	0.01	0.00	1.00				
Pre-school Attendance	0.18	0.21	0.19	0.24	0.25	0.16	-0.07	0.01	0.14	-0.03	1.00			
11.R2	0.10	0.10	0.08	0.11	0.11	0.07	-0.02	-0.04	0.05	0.01	0.14	1.00		
11.R6	0.05	0.05	0.04	0.08	0.08	0.04	0.00	-0.04	0.04	-0.01	0.12	0.25	1.00	
12.R3	0.12	0.12	0.11	0.13	0.13	0.08	0.01	-0.02	0.06	-0.01	0.15	0.09	0.09	1.00

Table K.48. Correlation Estimates of Measured Elements, Overall – Cohort 2

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	11.R2	11.R6	12.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.72	1.00												
Correct Invented Words per Minute	0.63	0.85	1.00											
Oral Reading Fluency	0.63	0.89	0.85	1.00										
Reading Comp. Score (percent)	0.53	0.67	0.65	0.69	1.00									
Listening Comp. Score (Percent)	0.25	0.28	0.31	0.23	0.44	1.00								
Age	-0.01	-0.09	-0.10	-0.09	-0.08	-0.04	1.00							
Home Language	0.05	0.11	0.11	0.10	0.13	0.10	-0.09	1.00						
Books at Home	0.10	0.11	0.12	0.13	0.12	0.07	0.00	0.08	1.00					
Parents Read at Home	-0.11	-0.13	-0.13	-0.12	-0.13	-0.09	-0.02	0.01	0.09	1.00				
Pre-school Attendance	0.17	0.19	0.18	0.19	0.21	0.13	-0.05	0.06	0.08	-0.04	1.00			
11.R2	0.15	0.14	0.18	0.08	0.19	0.28	0.02	0.00	0.04	-0.09	0.09	1.00		
11.R6	0.07	0.05	0.07	0.03	0.07	0.13	-0.01	-0.01	0.04	0.00	0.02	0.27	1.00	
12.R3	0.10	0.13	0.15	0.09	0.15	0.20	0.00	0.04	0.03	-0.05	0.07	0.31	0.16	1.00

Table K.49. Correlation Estimates of Measured Elements, Cohort 2 – Baseline

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	I1.R2	I1.R6	I2.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.71	1.00												
Correct Invented Words per Minute	0.63	0.86	1.00											
Oral Reading Fluency	0.65	0.91	0.89	1.00										
Reading Comp. Score (percent)	0.50	0.60	0.56	0.63	1.00									
Listening Comp. Score (Percent)	0.29	0.35	0.33	0.38	0.45	1.00								
Age	-0.10	-0.17	-0.17	-0.17	-0.16	-0.07	1.00							
Home Language	0.07	0.10	0.09	0.10	0.13	0.11	-0.09	1.00						
Books at Home	0.11	0.11	0.11	0.13	0.11	0.06	-0.03	0.08	1.00					
Parents Read at Home	-0.10	-0.13	-0.12	-0.15	-0.11	-0.04	-0.03	0.06	0.12	1.00				
Pre-school Attendance	0.18	0.20	0.19	0.22	0.21	0.13	-0.09	0.07	0.11	-0.03	1.00			
I1.R2	0.12	0.10	0.10	0.11	0.10	0.07	-0.04	0.06	0.02	0.01	0.00	1.00		
I1.R6	0.08	0.07	0.05	0.06	0.09	0.06	-0.02	0.10	0.03	0.01	0.01	0.18	1.00	
I2.R3	0.03	0.09	0.09	0.10	0.07	0.00	0.01	0.10	0.02	0.02	0.00	-0.03	0.00	1.00

Table K.50. Correlation Estimates of Measured Elements, Cohort 2 – Endline

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	11.R2	11.R6	12.R3	
Correct Letters per Minute	1.00														
Correct Familiar Words per Minute	0.72	1.00													
Correct Invented Words per Minute	0.63	0.85	1.00												
Oral Reading Fluency	0.64	0.89	0.88	1.00											
Reading Comp. Score (percent)	0.54	0.70	0.67	0.76	1.00										
Listening Comp. Score (Percent)	0.22	0.23	0.21	0.26	0.38	1.00									
Age	-0.02	-0.10	-0.10	-0.11	-0.09	-0.04	1.00								
Home Language	0.02	0.08	0.08	0.09	0.10	0.05	-0.06	1.00							
Books at Home	0.13	0.18	0.18	0.19	0.18	0.07	-0.01	0.08	1.00						
Parents Read at Home	-0.08	-0.11	-0.09	-0.11	-0.09	-0.02	0.00	-0.02	0.04	1.00					
Pre-school Attendance	0.15	0.17	0.15	0.19	0.18	0.07	-0.08	0.02	0.08	-0.05	1.00				
11.R2	0.13	0.12	0.12	0.13	0.12	0.06	0.06	-0.09	0.04	-0.06	0.10	1.00			
11.R6	0.10	0.06	0.06	0.08	0.04	0.04	0.00	-0.12	0.07	0.05	0.03	0.24	1.00		
12.R3	0.11	0.11	0.09	0.11	0.08	0.06	-0.07	-0.02	0.03	-0.04	0.05	0.11	0.07	1.00	

Table K.51. Correlation Estimates of Measured Elements, Overall – Cohort 3

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	11.R2	11.R6	12.R3	
Correct Letters per Minute	1.00														
Correct Familiar Words per Minute	0.66	1.00													
Correct Invented Words per Minute	0.53	0.80	1.00												
Oral Reading Fluency	0.53	0.85	0.86	1.00											
Reading Comp. Score (percent)	0.38	0.60	0.57	0.68	1.00										
Listening Comp. Score (Percent)	0.23	0.25	0.20	0.26	0.35	1.00									
Age	-0.02	-0.10	-0.12	-0.12	-0.13	-0.02	1.00								
Home Language	-0.16	-0.14	-0.09	-0.12	-0.10	-0.08	0.04	1.00							
Books at Home	0.09	0.16	0.14	0.18	0.12	0.07	-0.07	0.05	1.00						
Parents Read at Home	-0.05	-0.11	-0.08	-0.11	-0.11	-0.06	0.00	-0.06	0.05	1.00					
Pre-school Attendance	0.19	0.23	0.22	0.25	0.25	0.06	-0.13	-0.09	0.08	-0.08	1.00				
11.R2	0.12	0.13	0.10	0.13	0.10	0.11	-0.02	-0.08	-0.04	-0.10	0.16	1.00			
11.R6	0.06	0.12	0.09	0.13	0.12	0.10	-0.03	-0.16	0.05	-0.04	0.05	0.24	1.00		
12.R3	0.09	0.06	0.04	0.05	0.02	0.09	-0.04	-0.02	-0.14	-0.12	0.06	0.68	0.24	1.00	

Table K.52. Correlation Estimates of Measured Elements, Cohort 3 – Baseline

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	11.R2	11.R6	12.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.64	1.00												
Correct Invented Words per Minute	0.52	0.79	1.00											
Oral Reading Fluency	0.50	0.84	0.86	1.00										
Reading Comp. Score (percent)	0.36	0.58	0.54	0.67	1.00									
Listening Comp. Score (Percent)	0.21	0.23	0.18	0.26	0.36	1.00								
Age	0.05	-0.03	-0.07	-0.06	-0.09	-0.01	1.00							
Home Language	-0.17	-0.11	-0.09	-0.11	-0.08	-0.04	-0.01	1.00						
Books at Home	0.07	0.14	0.08	0.15	0.09	0.10	-0.01	-0.06	1.00					
Parents Read at Home	0.01	-0.03	-0.02	-0.04	-0.02	-0.02	0.01	-0.14	0.11	1.00				
Pre-school Attendance	0.19	0.22	0.24	0.26	0.26	0.05	-0.10	-0.12	0.06	-0.04	1.00			
11.R2	-0.02	0.04	0.01	0.05	0.12	0.01	-0.02	-0.07	0.06	0.01	0.04	1.00		
11.R6	-0.01	-0.05	-0.11	-0.08	-0.04	0.00	0.02	0.06	0.00	-0.01	-0.07	0.13	1.00	
12.R3	-0.02	-0.04	0.00	-0.04	-0.03	0.03	-0.07	0.20	-0.07	-0.05	0.00	-0.10	0.03	1.00

Table K.53. Correlation Estimates of Measured Elements, Cohort 3 – Endline

	Correct Letters per Minute	Correct Familiar Words per Minute	Correct Invented Words per Minute	Oral Reading Fluency	Reading Comprehension Score (percent)	Listening Comprehension Score (Percent)	Age	Home Language	Books at Home	Parents Read at Home	Pre-school Attendance	11.R2	11.R6	12.R3
Correct Letters per Minute	1.00													
Correct Familiar Words per Minute	0.68	1.00												
Correct Invented Words per Minute	0.55	0.82	1.00											
Oral Reading Fluency	0.55	0.86	0.86	1.00										
Reading Comp. Score (percent)	0.40	0.62	0.59	0.69	1.00									
Listening Comp. Score (Percent)	0.25	0.26	0.22	0.26	0.34	1.00								
Age	-0.08	-0.16	-0.16	-0.18	-0.17	-0.04	1.00							
Home Language	-0.15	-0.16	-0.09	-0.13	-0.11	-0.11	0.09	1.00						
Books at Home	0.13	0.18	0.20	0.22	0.16	0.07	-0.13	0.12	1.00					
Parents Read at Home	-0.09	-0.17	-0.14	-0.17	-0.19	-0.08	0.00	0.01	-0.03	1.00				
Pre-school Attendance	0.19	0.25	0.21	0.23	0.25	0.06	-0.18	-0.06	0.12	-0.11	1.00			
11.R2	0.16	0.23	0.22	0.24	0.15	0.13	-0.04	-0.06	0.17	-0.05	0.33	1.00		
11.R6	0.08	0.25	0.26	0.30	0.26	0.16	-0.07	-0.33	0.17	-0.02	0.15	0.10	1.00	
12.R3	0.13	0.18	0.15	0.19	0.10	0.05	-0.09	-0.17	0.11	-0.03	0.17	0.41	0.20	1.00