Table A1: Teacher Absence

|  | All | Kenya | Mozambique | Nigeria | Senegal | Tanzania I | Tanzania II | Togo | Uganda |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Absence from class (\%) | 44 | 48 | 56 | 23 | 31 | 53 | 47 | 40 | 57 |
| Absence from school (\%) | 23 | 15 | 45 | 17 | 16 | 23 | 15 | 23 | 28 |
| No. of teachers | 16543 | 2311 | 991 | 2968 | 1222 | 1740 | 3518 | 776 | 3017 |
| Scheduled teaching time | 5h 27m | 5h 36m | 4h 21m | 4h 43m | 4h 36m | 5h 47m | 5h 55m | 5h 24 m | 7h 13m |
| Time spent teaching | 2h 46m | 2h 31m | 1h 43m | 3h 10m | 3h 5m | 2h 32m | 2h 56m | 3h 9m | 3h 2m |
| No. of schools | 2001 | 238 | 200 | 435 | 145 | 176 | 344 | 144 | 319 |
| Orphaned classrooms (\%) | 33 | 38 | 31 | 26 | - | - | 36 | 24 | 45 |
| No. of schools | 1647 | 234 | 150 | 430 | - | - | 392 | 127 | 314 |

Notes: The table reports the absence rate for all teachers in government school, the scheduled teaching time, actual teaching time, and share of orphaned classrooms for all government schools. All individual country statistics are calculated using country-specific sampling weights. The average for all countries, reported under the heading "All" is taken by averaging over the country averages. Teachers are marked as absent from school if during the second unannounced visit, they are not found anywhere on the school premises. Otherwise, they are marked as present. Teachers are marked as absent from class if during the second unannounced visit, they are absent from school or present at school but absent from the classroom. Otherwise, they are marked as present. The scheduled teaching time is the length of the school day minus break time. Time spent teaching adjusts the length of the school day by the share of teachers who are present in the classroom, on average, and the time the teacher spends teaching while in the classroom. The orphaned classrooms measure is the ratio of the classrooms with students but no teacher to the number of classrooms with students with or without a teacher (not collected for the pilot countries).

Table A2: Teachers' Content Knowledge: Minimum Thresholds

| Percentage (\%) of teachers with ... | All | Kenya | Mozambique | Nigeria | Senegal | Tanzania I | Tanzania II | Togo |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Uganda |  |  |  |  |  |  |  |  |
| Subject knowledge: Language |  |  |  |  |  |  |  |  |
| 80\% of knowledge equivalent to a $4^{\text {th }}$ grader | 66 | 94 | 73 | 26 | 81 | 60 | 49 | 57 |
| Minimum knowledge | 7 | 34 | 0 | 0 | 6 | 0 | 1 | 0 |
| No. of teachers | 3770 | 633 | 315 | 681 | 188 | 97 | 697 | 604 |
| Subject knowledge: Maths |  |  |  |  |  | 555 |  |  |
| Minimum knowledge | 68 | 93 | 50 | 51 | 75 | 78 | 79 | 49 |
| No. of teachers | 3957 | 632 | 312 | 691 | 188 | 91 | 858 | 604 |

Notes: The table reports minimum content knowledge indicators for teachers in grade 4 or who taught grade 3 in the previous year in government schools. Language knowledge is computed for teachers teaching language, and mathematics knowledge is computed for teachers teaching mathematics. All individual country statistics are calculated using country-specific sampling weights. The average for all countries, reported under the heading "All," is taken by averaging over the country averages. A language teacher is defined as "mastering" the student curriculum if he/she scores at least 80 percent on the tasks covered in the language curriculum up to grade 4 . A language teacher is defined as having minimum knowledge for teaching if he/she scores at least 80 percent on the grammar, Cloze test, and correcting a student's composition task of the language assessment. A mathematics teacher is defined as having minimum knowledge for teaching if he/she scores at least 80 percent on the tasks covered in the math curriculum up to grade 4 . (So, for mathematics, the two measures-minimum knowledge and 80 percent of knowledge equivalent to a fourth grader, are the same; for language, they are different.)

Table A3: Teachers' Performance on Specific Item Groups of Knowledge

|  | All | Kenya | Mozambique | Nigeria | Senegal | Tanzania I | Tanzania II | Togo | Uganda |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Language (score out of 100) |  |  |  |  |  |  |  |  |  |
| Spelling task ${ }^{\text {a }}$ | 86 | - | - | - | - | 86 | - | - | - |
| Grammar task | 79 | 92 | 79 | 58 | 89 | 83 | 71 | 72 | 88 |
| Cloze task | 44 | 66 | 37 | 34 | 42 | 32 | 52 | 27 | 59 |
| Correct composition task | 26 | 50 | 9 | 17 | 35 | 10 | 21 | 25 | 41 |
| Number of teachers, Language | 3,770 | 633 | 315 | 681 | 188 | 97 | 697 | 604 | 555 |
| Math (percent of teachers) |  |  |  |  |  |  |  |  |  |
| Can add double digits | 91 | 98 | 82 | 82 | 97 | 98 | 96 | 75 | 98 |
| Can subtract double digits | 76 | 88 | 59 | 59 | 92 | 93 | 84 | 60 | 76 |
| Can multiply double digits | 68 | 87 | 44 | 50 | 89 | 88 | 67 | 49 | 67 |
| Can solve simple math story problem | 55 | 86 | 17 | 30 | 91 | 73 | 47 | 30 | 66 |
| Understands a Venn diagramb ${ }^{\text {b }}$ | 31 | 56 | 12 | 21 | - | - | 31 | 13 | 54 |
| Can interpret data in a graph ${ }^{\text {b }}$ | 11 | 40 | 3 | 4 | - | - | 5 | 5 | 8 |
| Can solve algebra | 35 | 74 | 3 | 12 | 31 | 61 | 47 | 8 | 42 |
| Can solve difficult math story problem ${ }^{\text {c }}$ | 15 | - | - | - | 7 | 22 | - | - | - |
| Number of teachers, Math | 3,957 | 632 | 312 | 691 | 188 | 91 | 858 | 604 | 581 |

Notes: The table presents scores on Language tasks, and the percentage of teachers able to perform various math tasks, for teachers in government schools teaching grade 4 or who taught grade 3 in the previous year. Language knowledge is computed for teachers teaching language, and mathematics knowledge is computed for teachers teaching mathematics. All individual country statistics are calculated using country-specific sampling weights. The average for all countries, reported under the heading "All," is taken by averaging over the country averages. (a) Question was asked only in Tanzania (2010). (b) Percentage of teachers who got both questions related to this task correct. (c) Question was asked only in Senegal and Tanzania (2010).

Table A4: Pedagogical Knowledge and Skills

|  | All | Kenya | Mozambique | Nigeria | Tanzania II | Togo | Uganda |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Panel A: Pedagogical knowledge |  |  |  |  |  |  |  |
| Minimum general pedagogy knowledge (\% of teachers) | 11 | 18 | 3 | 1 | 36 | 3 | 4 |
| Factual text comprehension (score out of 100) | 47 | 65 | 23 | 24 | 78 | 39 | 50 |
| Formulate aims and learning outcomes (score out of 100) | 23 | 41 | 12 | 11 | 41 | 17 | 18 |
| Number of teachers | 4,799 | 893 | 324 | 769 | 1264 | 604 | 945 |
| Panel B: Assessing students |  |  |  |  |  |  |  |
| Minimum knowledge assessing students (\% of teachers) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Formulate questions to check understanding (score out of 100) | 23 | 55 | 12 | 5 | 52 | 10 | 6 |
| Formulate questions to apply to other contexts (score out of 100) | 7 | 4 | 8 | 3 | 15 | 7 | 4 |
| Assessing students' abilities (score out of 100) | 19 | 39 | 10 | 8 | 17 | 15 | 24 |
| Evaluating students' progress (score out of 100) | 12 | 26 | 5 | 5 | 20 | 6 | 9 |
| Number of teachers | 4,799 | 893 | 324 | 769 | 1264 | 604 | 945 |
| Panel C: Skills and practices in the classroom (\% of teachers) |  |  |  |  |  |  |  |
| Introduce and summarize topic of the lesson | 41 | 62 | 16 | 55 | 46 | 36 | 30 |
| Lesson appears planned to enumerator | 64 | 75 | 71 | 60 | 67 | 74 | 37 |
| Ask a mix of lower and higher order questions | 31 | 31 | 14 | 36 | 32 | 30 | 44 |
| Give positive feedback, praise, corrects mistakes | 52 | 70 | 32 | 43 | 59 | 35 | 75 |
| Engages in all of the above practices | 8 | 17 | 1 | 10 | 12 | 3 | 5 |
| Number of teachers (classrooms) | 1,551 | 181 | 197 | 428 | 338 | 140 | 267 |

Notes: Panel A reports on minimum general pedagogical knowledge and scores on specific pedagogical tasks for teachers in government schools in grade 4 or who taught grade 3 in the previous year. A teacher is defined as having minimum knowledge of general pedagogy if the teacher scores at least 80 percent on the tasks that relate to general pedagogy (factual text comprehension and being able to formulate learning outcomes and lesson aims). Panel B reports minimum pedagogical knowledge in assessing students as well as scores on specific pedagogical tasks for teachers in government schools in grade 4 or who taught grade 3 in the previous year. A teacher in any subject is defined as having minimum knowledge for assessing students if they score least 80 percent on the tasks that relate to assessment (comparing students' writing and monitoring progress among a group of students). Panel C presents teacher skills and practices in the classroom in government schools in grade 4 . All individual country statistics are calculated using country-specific sampling weights. The average for all countries, reported under the heading "All," is taken by averaging over the country averages. All scores are computed for teachers teaching either subject.

