RTI International (U.S.) in collaboration with FocusAfrica (Senegal) and with support from the Hewlett Foundation

Early Grade Reading Assessment (EGRA) Project in Senegal
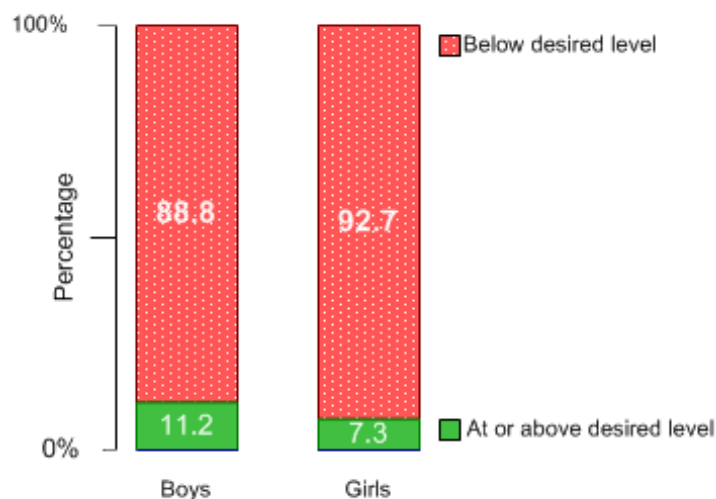## Update and results

In 2009, the William and Flora Hewlett Foundation supported implementation of an Early Grade Reading Assessment in Senegal. This assessment was conducted by RTI International and FocusAfrica with assistance from Associates in Research and Education for Development (ARED) and the National Institute of Research for Educational Development (INEADE) in Senegal. The evaluation took place from May to June in CE1 classes (third year of schooling) across 50 schools in 11 regions of Senegal. From July to November, the results were analyzed, then presented to different departments of the Ministry of Preschool, Elementary, and Middle Schooling, and of National Languages (Ministry of Education) during a working session on November 16, 2009. This publication summarizes key findings about the current level of reading ability in the grade tested, as well as factors linked to the socioeconomic and classroom environment that appear to influence that ability.

Overall results of the study

The results analysis for reading in French is based on a final sample of 687 students tested (51% boys and 49% girls). Additionally, interviews with 50 school directors and 70 teachers from the same classrooms provided additional data for interpreting the wide range of differences in students' performance (see graphic, next page) by looking at variables related to school and classroom conditions.

The results indicate that the number of students who were not able to read at all was very high—nearly one in five children could not read a single word of a short text (123 children out of the 687, to be specific). Among the students who could read at least one word, the results were still very low, with an average of 22.5 words per minute read correctly. Moreover, the comprehension score for this story was very poor among all readers, with only five students able to answer at least 5 out of 6 questions correctly.

Percent of children in CE1 who have demonstrated minimum French reading fluency
(score equal or greater than 50 MCM)

100%

Percentage

0%

88.8 92.7

11.2 7.3

Boys   Girls

☐ Below desired level
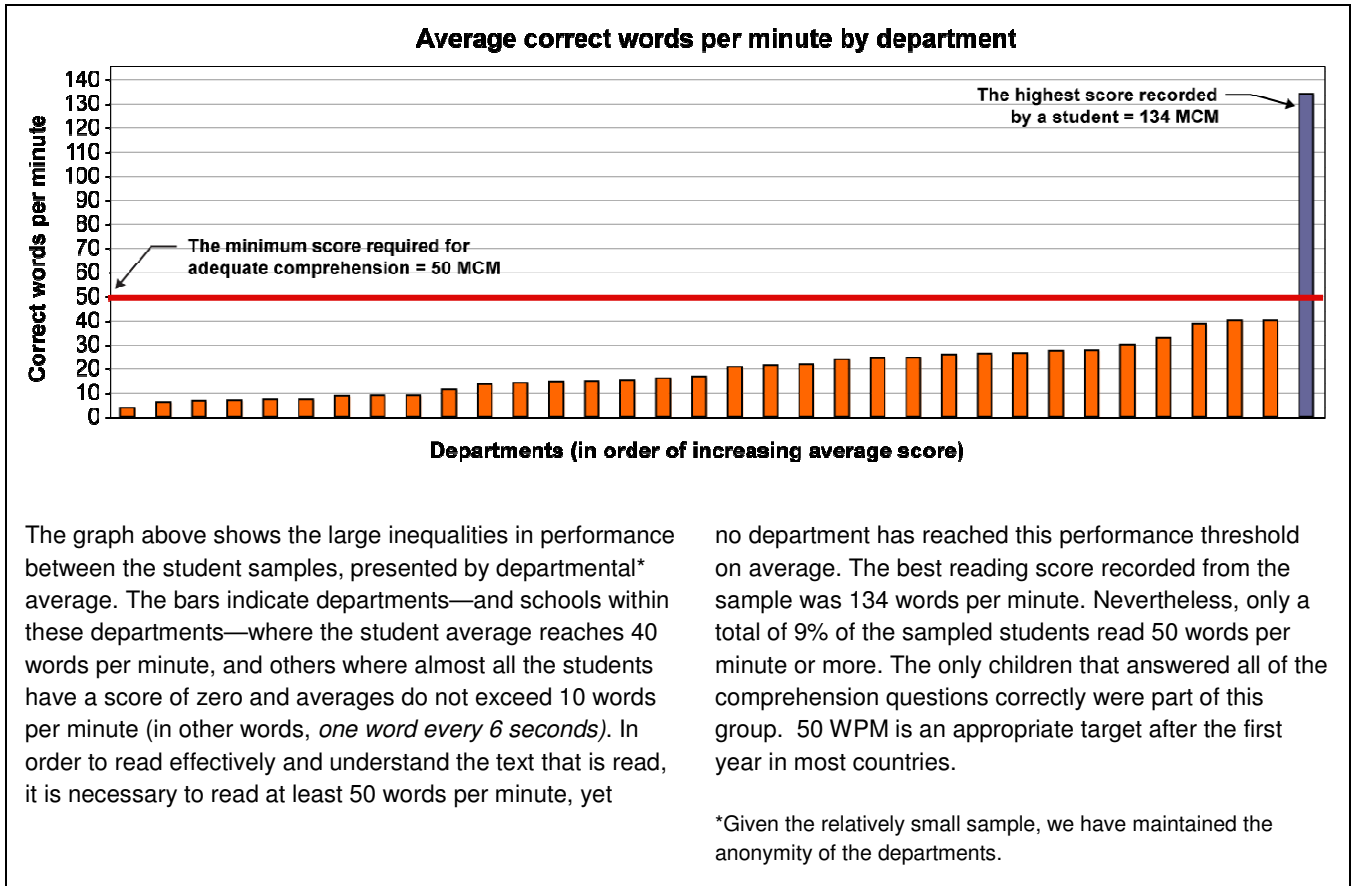☐ At or above desired level

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How is this study different from other student reading assessments?

The most common achievement assessments used in reading and mathematics in Senegal are *norm referenced*. In other words, the "scores" are calculated as a percentage of correct responses and can only be interpreted in comparison to other participants of the test or against a set benchmark (i.e., 75 out of 100 in the case of the National System for the Evaluation of School Results [SNERS]).

Our study applies an assessment tool known as EGRA*. This diagnostic tool is *criterion referenced* and measures student performance as the number of words per minute read correctly. This score is then interpreted based on an international standard of performance derived from research into reading acquisition as well as results from Senegal. **The minimum fluency level suggested by experts for learning to read is between 45 and 60 correct words per minute; a slower rate does not allow adequate comprehension.**

* Early Grade Reading Assessment. See: http://www.eddataglobal.org.

Average correct words per minute by department

The graph above shows the large inequalities in performance between the student samples, presented by departmental* average. The bars indicate departments—and schools within these departments—where the student average reaches 40 words per minute, and others where almost all the students have a score of zero and averages do not exceed 10 words per minute (in other words, *one word every 6 seconds)*. In order to read effectively and understand the text that is read, it is necessary to read at least 50 words per minute, yet

no department has reached this performance threshold on average. The best reading score recorded from the sample was 134 words per minute. Nevertheless, only a total of 9% of the sampled students read 50 words per minute or more. The only children that answered all of the comprehension questions correctly were part of this group. 50 WPM is an appropriate target after the first year in most countries.

*Given the relatively small sample, we have maintained the anonymity of the departments.

Finally, as the graphic on this page shows, there are important differences in performance between children across classrooms and schools in the sample.

Detailed results

Through questionnaires on students' learning environment, conditions in their classrooms and schools, and characteristics of their teachers and school principals, the study looked for factors related to student reading performance. The following factors seem to have a significant effect on reading skills:

- The student has the textbook and/or other French books at home
- The student attended kindergarten/preschool
- A member of the student's household knows how to read (particularly the mother)
- The teacher spends more than four hours per week teaching French
- The teacher possesses at least a high school diploma
- The teacher spends time working (reading,

writing) with the students individually
- The principal holds a higher education diploma
- The school and/or the house has electricity.

In conclusion, the results show significant inequalities in an education system that favors students who begin their schooling earlier, are able to acquire their French communication skills through a literate environment, and are supported by competent adults. The possible actions to reduce these inequalities are numerous; however, it is first necessary to create awareness of national needs and empower those who have the power to act, including parents and community members. These results need to be interpreted in the context of a country where the kids are reading in a language they do not use.

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