



JÀNGANDOO,

An instrument to Measure the Quality in the Learning of Children in Senegal



The program JÀNGANDOO aims to implement a barometer to gauge the quality of learning of children aged 6–18 years. It is designed as a periodic independent evaluation of learning outcomes of children in Senegal. It is inspired by the experience of India, where the Annual Status of Education Report (ASER) is produced every year.

Similar initiatives (Kenya, Mali, Tanzania ...) are also underway in Africa. This evaluation has become an imperative for change. The objective of JÀNGANDOO is to create awareness and action to promote the quality of learning by the government, elected officials, civil society, families and other actors. The program has two phases: a testing phase followed by scaling. The testing phase is designed to develop and improve tools, approaches and build the representativeness of the scale out sample. The scale out is meant to collect and analyze data to be used as the basis of advocacy and recommendations to local authorities, the academia, public authorities and families.

THE BAROMETER APPROACH: assessing from household level and using the median level

With the start of the pilot phase in May 2012, 526 households were interviewed and 1,605 children (aged 6–18 years) were tested in four pilot regions (Dakar, Diourbel, Kolda and St. Louis). The evaluation has focused on the assessment of children's knowledge. The median level used in the evaluation corresponds to the knowledge acquired at the end of the third year of learning, which includes all the skills/basics. The results of capacity and progress measurements have been recorded for reading, mathematics and general knowledge. The approach was participatory because it has involved the educational community stakeholders (teachers, communities, elected officials, families, associations) in the evaluation of learning.

At the end of the pilot phase of the program, tools, processes and the representativeness of the sample was improved depending on the shortcomings identified. In addition, children's abilities were measured using a single learning assessment level to report on the minimum acquisitions threshold. Thus, all children aged 6 to 18 years in targeted households are subjected to the same tests of the median level.

MULTI-STAKEHOLDER PARTNERSHIP FOR CHANGE

The JÀNGANDOO initiative is led by LARTES-IFAN with the participation of a range of partner institutions as part of a research partnership approach: in the pilot phase, ARED (Associates in Research and Education for Development) led the program in the region of St. Louis. CAREF (Cabinet d'Appui pour la Recherche

en Education et pour la Formation), in collaboration with education inspectors, facilitated the assessment in Rufisque and Guediawaye. In Dakar, Pikine and Diourbel, COSYDEP (Coalition des Organisations en Synergie pour la Défense de l'Éducation Publique) operated the program. Finally, in Kolda, FODDE (Forum pour un Développement Durable Endogène)..

JÀNGANDOO, evaluate and bring about innovations for quality learning

The theory of change is premised on the idea that when faced with complex educational problems, the educational community is able to mobilize and find simple, practical solutions, accessible to the majority and duplicable. Where educational authorities want to get further involved, the barometer can be used as a basis for advocacy. The results of the Barometer are shared with families, mayors and local elected officials, national authorities, NGOs and associations of parents, educators, in short, the whole educational community for them to innovate and generate changes in the quality of learning.

MAIN CHARACTERISTICS OF HOUSEHOLD SURVEYS

It is understood that the pilot sample is not representative of the national or regional levels, but it is valid for testing the tools and the approach. The sample can also be used to provide some indications of the general trends characterizing the quality of learning.

The data are from 526 households, including 73% in urban areas and 27% in rural areas. The breakdown in the pilot regions gives preponderance respectively to the regions of Dakar (39%), Diourbel, Saint Louis (22.8%) and Kolda (15.2%).

The main characteristics of the surveyed households are:

- Over 70% are headed by men;
- 26.8% of household heads have never been to school, 21.3% attended primary school and 22.4% attended secondary school.
- 53.6% are monogamous, 35.7% are polygamous; the unmarried represent only 1.9% while widows / widowers represent 6.1%.
- Nearly 66% of parents have a pretty good understanding of education, while 13% have a poor perception.

MAIN CHARACTERISTICS OF THE TESTED CHILDREN

The children surveyed are in the age group of 6-18 years, with a higher preponderance (31%) of children aged 9 to 11 years. The number of girls is slightly higher than that of boys (51% against 49%). Among these children:

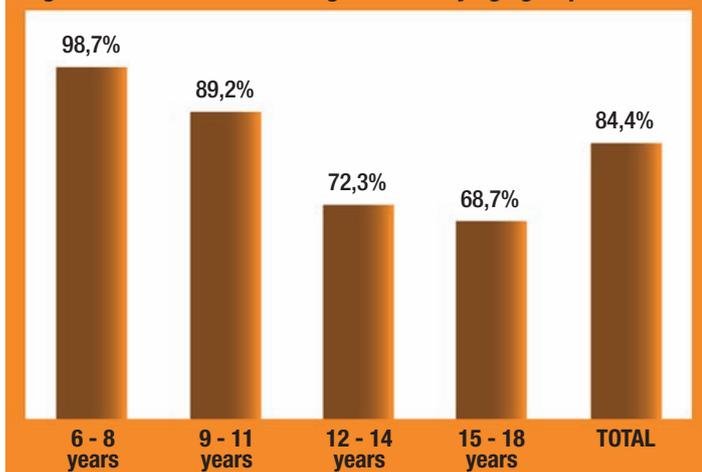
- 94% attend school, 2.7% dropped out, while 3.3% have never been to school.
- 76.1% attend public schools, 9.9% attend private schools, 4.1% attend Franco-Arabic schools and 3.8% attend daaras (Koranic learning).
- 33.5% live in Dakar, 22.6% live in Diourbel, 21.6% live in Kolda, and 22.4% live in St. Louis.

EVALUATION RESULTS OF THE PILOT PHASE IN MAY 2012

1 Over 80% of children (all ages) failed in the general test of the median level CE1 (3rd grade of primary education)

The results of the pilot phase showed a failure rate of 84.4% overall. In reading, the failure rate is 64% and in numeracy, it is 81.4%. General knowledge has accounted for only one point on the 17 points needed to validate all the tests.

Figure 1: Failure rates in the global test by age group

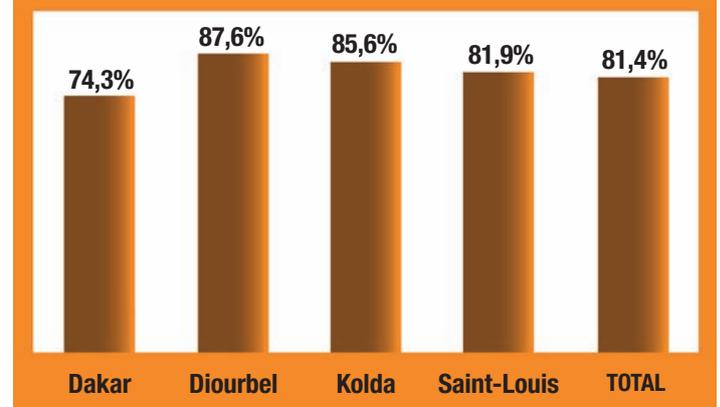


This failure rate as shown in the table above, is particularly high when we consider that the assessment is based on the median level (end of the third year of learning) while the children tested were 6 to 18 years. More than two-thirds of children are supposed to be already above this level of learning.

2 The poor performance of children in numeracy is even more pronounced

In all four regions, the failure rate in numeracy (calculations and problem solving) reached 81.4%. In Diourbel, the failure rate in the numeracy test is very high, representing 87.6%; Kolda was second with a failure rate of 85.6%. Dakar had the lowest failure rate with 74.3%.

Figure 2: Percentage of children who failed the numeracy test per region

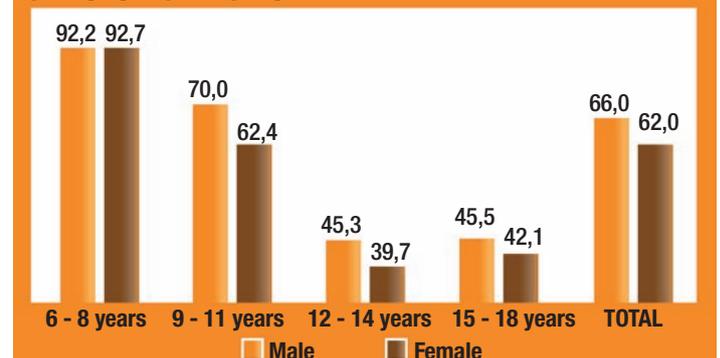


The teaching of mathematics requires higher attention. The profiles of teachers will further have to be selected according to their scientific capacities. Similarly, the learning conditions require learning materials and appropriate teaching methods, which are lacking.

3 Girls read better than boys

Although boys and girls have the same overall average performance (in reading and numeracy) according to the assessment results, the reading score of children shows that girls perform better than boys. It was noted that 62% of girls were unable to validate the reading test compared to 66% of boys.

Figure 3: Failure rate in the reading test of the median level per age group and per gender



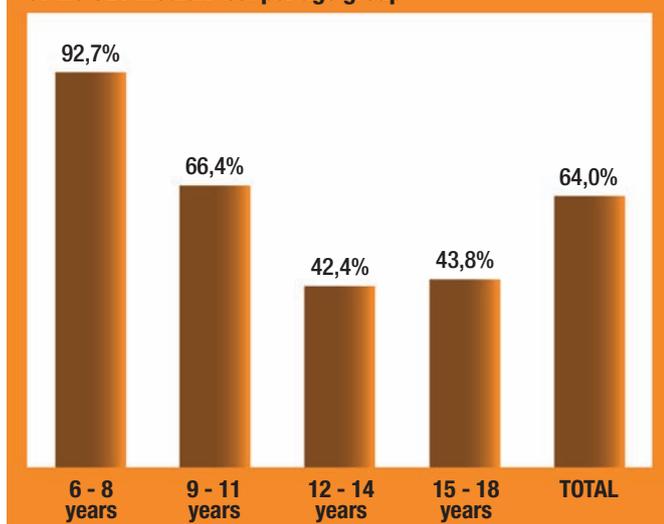
4 In older age groups, children have got gaps since their early years of learning

Performance does not always grow with the age of the child. This observation is made at the reading test where children in the 15 to 18 years age group have a failure rate (43.8%) higher than those in the 12 to 14 years age range (42, 4%).

The gaps accumulated by children since their early years of learning will have a negative impact on their later stages of preparation. It appears that remediation is not done from one cycle to another.

It is therefore imperative for teachers and actors of the educational community to take care of developing suitable methods to fill the gaps, especially in literacy and numeracy, first within each cycle and then between the different cycles.

Figure 4: Percentage of children who failed the reading test of the CE1 median test per age group



5 Learners' performance is better where textbooks are available in the learning places

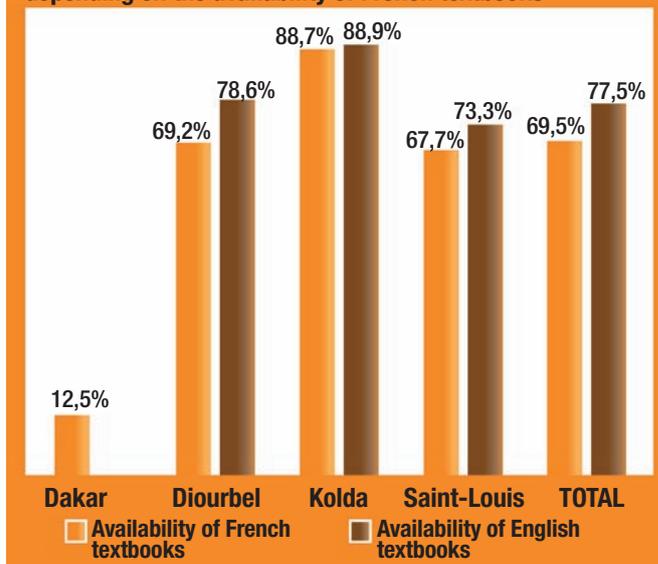
Across all four regions, the intersection between the variables of availability¹ of textbooks and children's learning shows a significant positive correlation between the two variables.

The state of play in relation to teaching materials in schools revealed that in St. Louis, students in the schools visited, have neither reading books, nor numeracy books.

It came out clearly that the performance of children is higher where the availability of learning material is high. In Kolda also, the failure rate was the highest; and this is where the lowest proportion of public schools (7.5%) have reading books and numeracy books for all students. On the other hand, in Dakar, availability of materials is higher and the failure rate is the lowest.

¹ The level of availability of textbooks has been determined from an indicator created based on a score of existing textbooks in schools (existence reading and numeracy manuals, whether all students have a manual or not). The scale of scores for manuals ranges from 0 to 4. The schools were then divided into three categories. Those with low quantity of manuals (scale ranging from 0 to 1), those with moderate quantity of manuals (scale ranging from 2 to 3) and those with sufficient quantity of manuals (maximum scale of 4)

Figure 5: Failure rate at the French language test depending on the availability of French textbooks

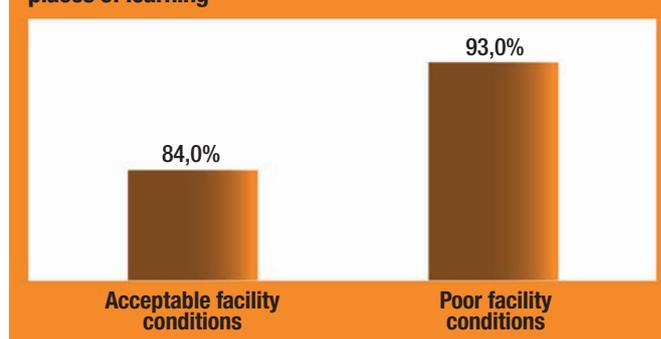


The availability of manuals among children appears to be an essential input for the quality of learning. It is paramount to ensure that the manuals are in the school bags of all children.

6 The failure rate is lower in places where facility conditions are acceptable

The level of availability of equipment² in children's learning places has revealed to be a factor that is associated with their performance. Indeed, the results show that children who learn in places where the level of equipment availability is at least moderate are more likely to achieve better performance than other children.

Figure 6: Failure rates depending on facility conditions in places of learning



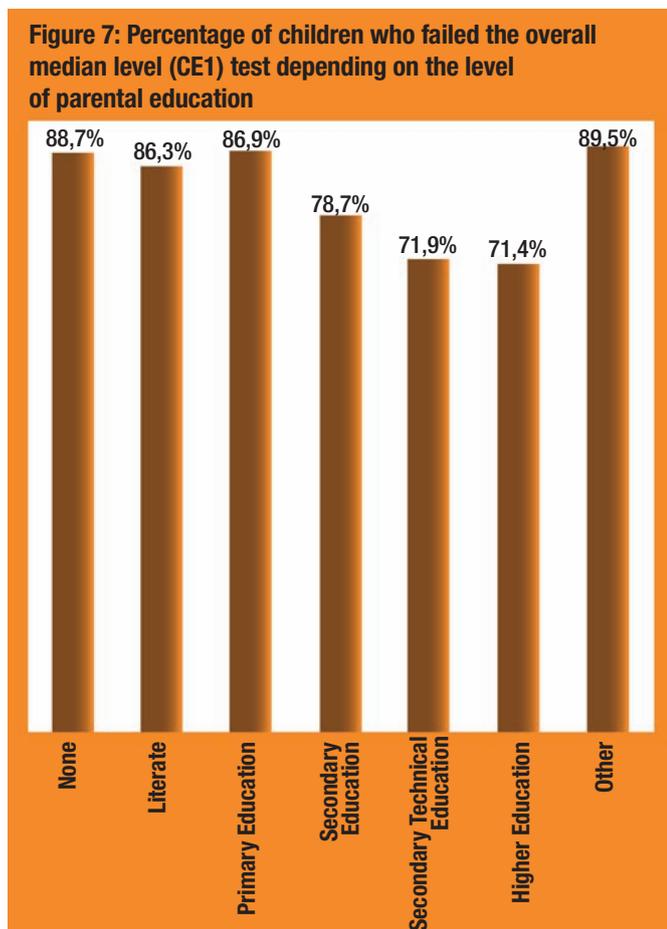
In all four regions, the failure rate is lower at the general test when children attend schools where facility conditions are acceptable. For example, we found out that the failure rate is higher when schools do not have toilets for children, canteen and blackboards in classrooms.

It is therefore important to ensure that the physical conditions are acceptable for all in education places in order to enhance the performance of children.

² The level of infrastructure availability is measured by an indicator constructed from a Multiple Correspondence Analysis (MCA) on several variables that provide information on the physical conditions of the place of learning. As material conditions, for example, we have the existence of electricity, drinking water, canteen, blackboards in classrooms, etc. From this indicator, schools were classified into three categories: poor facility conditions, moderate facility conditions and high facility conditions high.

7 Children's performance is influenced by the level of education of the household head

Overall, children who live in households where the head has a secondary school level education are more likely to have better performance compared to children from households where the head has no formal education.



According to these results, it came out that the failure rate at the global test for children from households where the head has secondary school level education is 78%, compared to 89% for children from households where the head has no education.

8 Children's performance is different depending on the living conditions of the households they come from

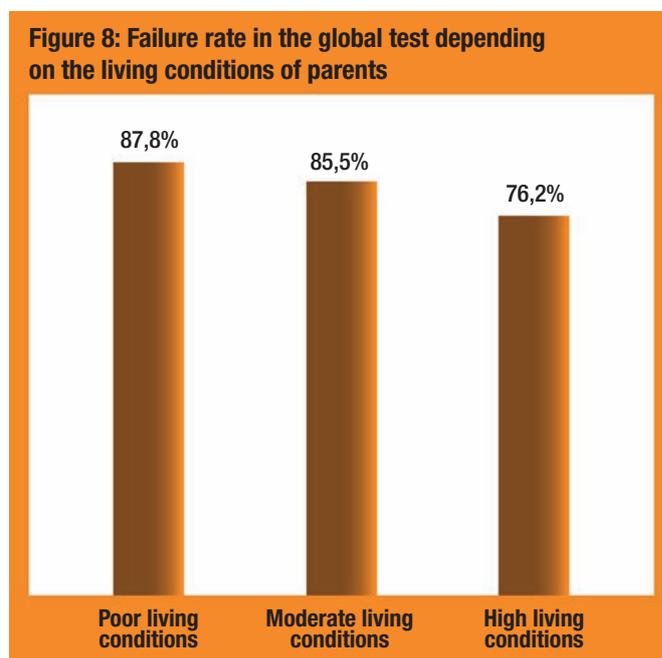
The children were divided into three groups according to the living conditions³ of the household they live in. The first group includes 633 children, representing 39.5% of the sample of children. This is the group of children whose households have low standards of living. Children in this group have an average score of 7.6 out of 17.

The second group includes 615 children, representing 38.3% of the sample of children. The households the second group of children comes from have intermediate or moderate living

standards. Children in this group have an average score of 8.6 out of 17.

The third group of 357 children represents 22.2% of the sample of children. The households this third group of children comes from have high standards of living. Children in this group have an average score of 10.7 out of a total of 17.

The results showed that children from wealthier households are more likely to have better performance than other children. Figure 6 shows that among children whose parents are wealthy, about 76.2% have not validated all of the tests. However, among children whose parents are poor or have a standard of living, respectively 87.8% and 85.5% did not validate all the tests.



9 Scale out needed to confirm the preliminary results

Ultimately, we must remember that the different findings here will be consolidated by the scale out phase which will begin in November 2012 for a two years period. Therefore, these results should be used with all the required caution. Indeed, the analyzed data are from a pilot study that focuses only on 1,605 children. This survey is therefore not statistically representative in the four target regions of the study and at the national level.

However, it is important to note that the quality of education under this pilot survey emerged as a major issue for the coming years. The Jangandoo program working specifically on the issue of the quality of learning, through its innovative approach and the originality of its tools, intends to bring major changes to the issue of training in Senegal.

Thus, working closely with successful experiences around the world, and relying on the local social and cultural reality, the jangandoo program intends to provide empirical evidence to turn all actors in society into vectors of quality education in Senegal.

³ It is an indicator of living standards that discriminates against children by household poverty level. This synthetic indicator takes into account all assets owned by households (variables related to comfort and household wealth). The indicator is calculated from a Multiple Correspondence Analysis (MCA), which allowed for a Hierarchical Clustering (AHC), which distributes households into three categories: low living conditions, moderate living conditions and high living conditions.

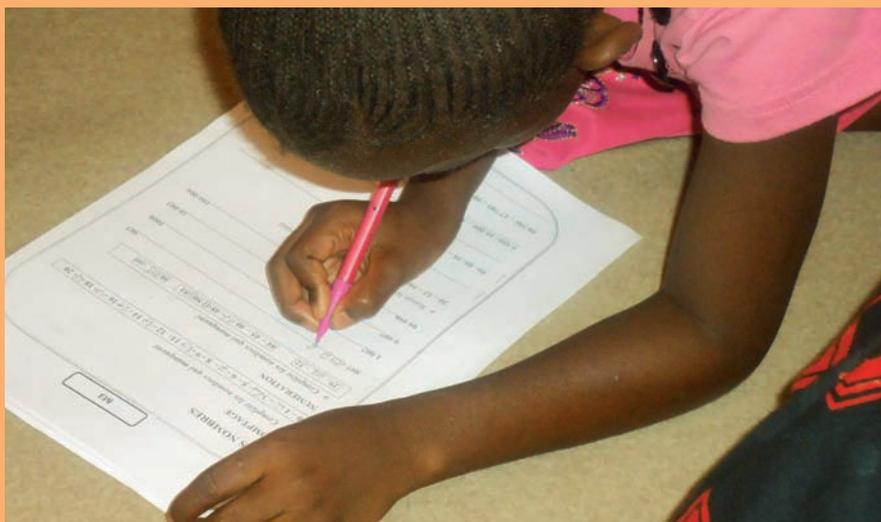
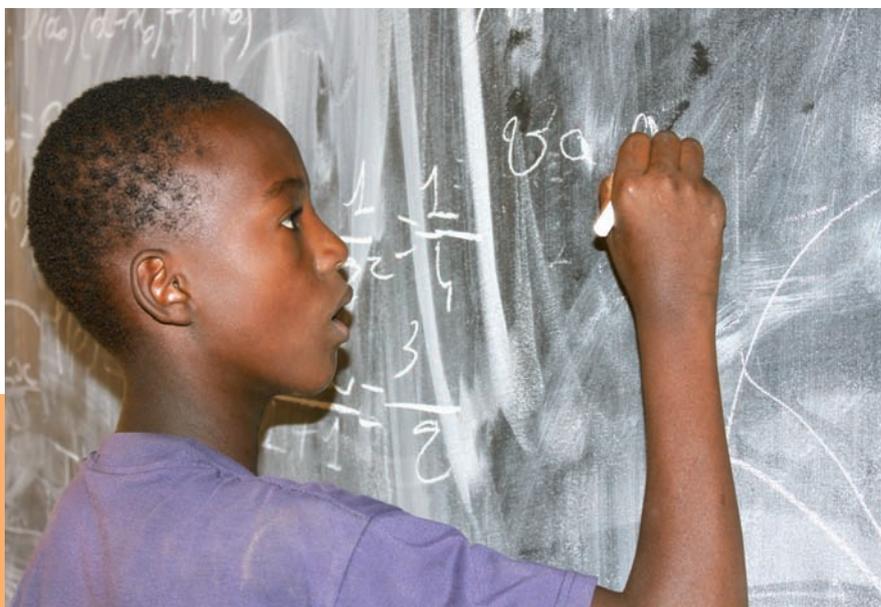
CONCLUSION: WORKING TOGETHER FOR BETTER QUALITY IN LEARNING

The evaluation of learning in the pilot phase was performed on a total of 1,605 children. The breakdown by area of residence shows that 68.9% of the children evaluated are from the urban areas, and 51% of them are girls. The evaluations of the pilot survey show that the failure rate in the overall test is 84.4%.

Behind this overall failure rate, there are some specific disparities. Indeed, the failure rate in the overall test is higher in rural areas. Moreover, for all age groups, we observed that the failure rate for girls

in the median level test is slightly lower than that of boys. These results should challenge the community of education actors and elicit strong action in favor of quality and accessible education.

The Jàngandoo program fits into this logic by implementing the barometer of the quality of education in Senegal. Jàngandoo is designed to arouse the interest of families, local and national authorities for periodic evaluation of learning in order to ensure the sustainability of the program activities.



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