

# WHAT ARE CHILDREN IN LAGOS LEARNING?

COMPARING LEARNING OUTCOMES IN LOW- AND MEDIUM-COST PRIVATE  
SCHOOLS, PUBLIC SCHOOLS AND BRIDGE SCHOOLS IN LAGOS



## MAIN TAKEAWAYS

*Private schools are the main education provider in Lagos.*

*Pupils studying in private schools (and Bridge schools) in Lagos perform better on average in literacy and numeracy than pupils in public schools, even when factoring in background characteristics.*

*At Primary 4 (P4) numeracy, there are more top performers in public schools than in non-Bridge private schools.*

*The poorest students, and those who do not primarily speak English at home, are most likely to attend public schools.*

*Poorer students have lower literacy scores in private and public schools, but not at Bridge schools.*

*Numeracy achievement is not significantly correlated with wealth across school types.*

*Girls perform better than boys in literacy at the P2 and at the P4 level, and across school types.*

*Primarily speaking English at home is associated with significantly higher performance in literacy.*

*Improving education in Lagos will need direct support to private schools, better regulation of private schools, better markets for services to private schools, and continued support to public schools.*

*School management is an important lever for improving performance, particularly in public schools and Bridge schools.*





Photo credit: [http://www.ags.gov.ng/agis-2016-budget-and-the-paltry-allocation-for-education/](#)

There are  
**1,200**  
primary-age children  
for every available  
public primary school



**60%** of primary and secondary  
students are enrolled in  
more than 12,000 private  
schools

**69%** 

of students attending low-cost private schools &  
56% of students attending medium-cost schools  
in Lagos are poor.



In this context, poor is classified  
as anyone living below the 2013  
Lagos poverty line of

**N112,895** per  
annum.



## THE ROLE OF PRIVATE SCHOOLS IN LAGOS

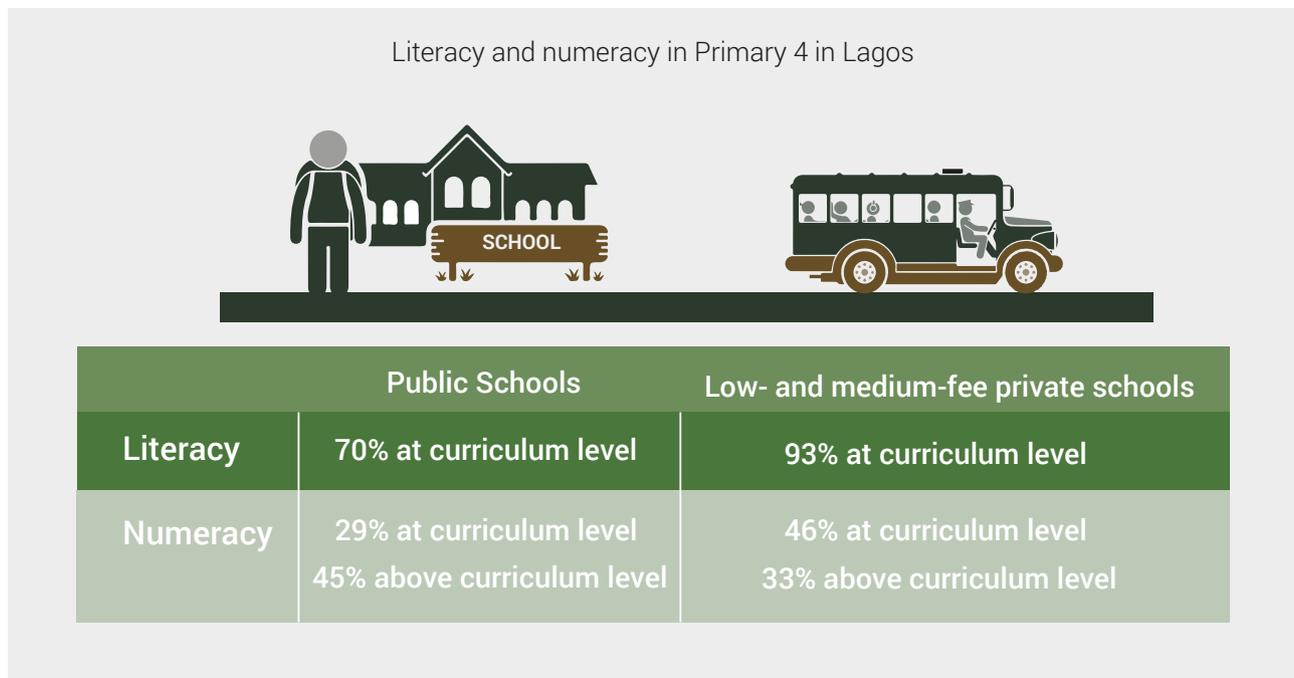
With 1,200 primary-age children for every available public primary school, Lagos state has the fewest number of public schools per capita in Nigeria. Despite this, only 4% of primary-aged children in Lagos were out of school in 2011. High enrollment rates are made possible by private schools filling the gap in provision. In 2011, 60% of primary and secondary students in Lagos studied in more than 12,000 private schools.

Private schools in Lagos do not cater exclusively to the wealthy. Recent research suggests that 69% of children attending low-cost private schools and 56% of those attending medium-cost schools in Lagos live in households that earn below \$313 per year at current exchange rates.

Until recently, little was known about the quality of most of these private schools in Lagos. Were they better, for instance, than public alternatives that do not charge school fees? Which student, teacher and school characteristics are correlated with more learning? What is the best way of engaging with the private schools sector?

This brief begins to fill these gaps in knowledge using data from three separate studies of private schools in Lagos.

## WHAT DO WE KNOW ABOUT LEARNING AT THE PRIMARY 4 (P4) LEVEL IN LAGOS?



Source: EDOREN (2017)

Note: No students in the sample score above the curriculum level for literacy

In P4 literacy and numeracy, students at low and medium-fee private schools perform significantly better than students in public schools, even after accounting for student background.

In P4 literacy, 93% of children in private schools achieve at the level expected by the curriculum, compared to 70% in public schools.

In P4 numeracy, the average child in a typical Lagos private schools performs better than the average child in a typical public school. More children in private schools than children in public schools achieve at or above the curriculum level in P4 Mathematics (79% compared to 74%). However, there is a higher percentage of top performers in public schools, where 45% of students perform above the curriculum level, compared to 33% in low and medium-fee private schools.

Literacy and numeracy in Primary 2 in Lagos



	Public Schools	Low- and Medium-fee private schools	Bridge Schools
Literacy	18% Above sample average	62% Above sample average	80% Above sample average
Numeracy	24% Above sample average	64% Above sample average	62% Above sample average

In P2 literacy and numeracy, students at private schools and at Bridge schools perform significantly better than students in public schools, even after accounting for student background.

In P2 literacy, students at Bridge schools perform better on average than students in other similar private schools. Eighty percent of students in Bridge schools perform above the sample average, compared to 62% of students in private schools and 18% in public schools.

In numeracy however, there is no difference between Bridge schools and other private schools. Sixty two percent of students in Bridge schools perform above the sample average, compared to 64% of students in other private schools (the difference between the two school types is not statistically significant). Only 24% of students in public schools perform above the sample average.

<sup>1</sup>Unless otherwise stated, results relating to P2 are from the Bridge study and P4 results are from the P4 Comparison study. All results reported from our studies are statistically significant at 5% level of significance, unless otherwise stated.

## WHAT FACTORS ARE ASSOCIATED WITH LEARNING?

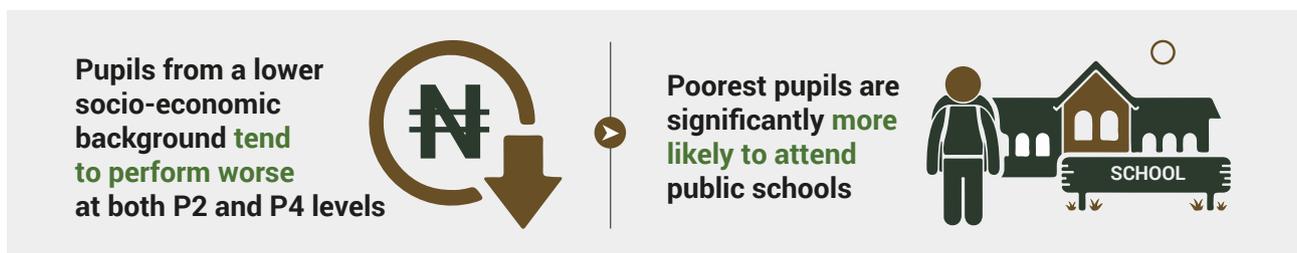
The Developing Effective Education Nigeria (DEEPEN), P4 and Bridge studies cannot make claims about the causes of learning achievement in different school types.

However, accounting for all other factors known to influence learning outcomes on which data has been collected (e.g. socioeconomic background, language spoken at home, gender, age), our research finds the following factors relevant.

### Household wealth

The poorest students are significantly more likely to attend public schools. At the P2 level, while 60% of the students in public schools belong to the two bottom wealth quintiles, this is the case for only 27% of students in Bridge schools and 29% of students in other private schools.

At the P4 level, the average pupil in private schools has a higher level of household wealth than the average pupil in public schools. While both public and private schools at P4 level have some pupils from equally high socioeconomic status households, the poorest pupils are only found in public schools.



Poorer students generally perform worse on assessments. In the DEEPEN baseline, we find that poorer P2 level pupils perform significantly worse in both numeracy and literacy tests, even when taking into account relevant school and teacher characteristics.

The more recent Bridge study suggests that poorer students have lower learning achievement in private and public schools, but not at Bridge schools, and that numeracy achievement is not significantly correlated with wealth across school types.

At the P4 level, in both public and private schools the poorest pupils do not perform as well in literacy or numeracy.

<sup>1</sup>Unless otherwise stated, results relating to P2 are from the Bridge study and P4 results are from the P4 Comparison study. All results reported from our studies are statistically significant at 5% level of significance, unless otherwise stated.

## Language spoken at home

What do we know about the learning of pupils who primarily speak English at home compared to pupils who primarily speak other languages?



	Literacy	Numeracy
P1	Better in low- and medium-cost private schools; no difference in Bridge and public schools	No
P2	Better in low- and medium-cost private and public schools	No

Public schools have more pupils who do not primarily speak English at home. At the P2 level, 48% of Bridge pupils, 43% pupils from other private schools and 24% of public school pupils primarily speak English at home.

Similarly, at the P4 level, we found that 52% of private school pupils primarily speak English at home. For public school pupils this is only true for 19% of pupils.

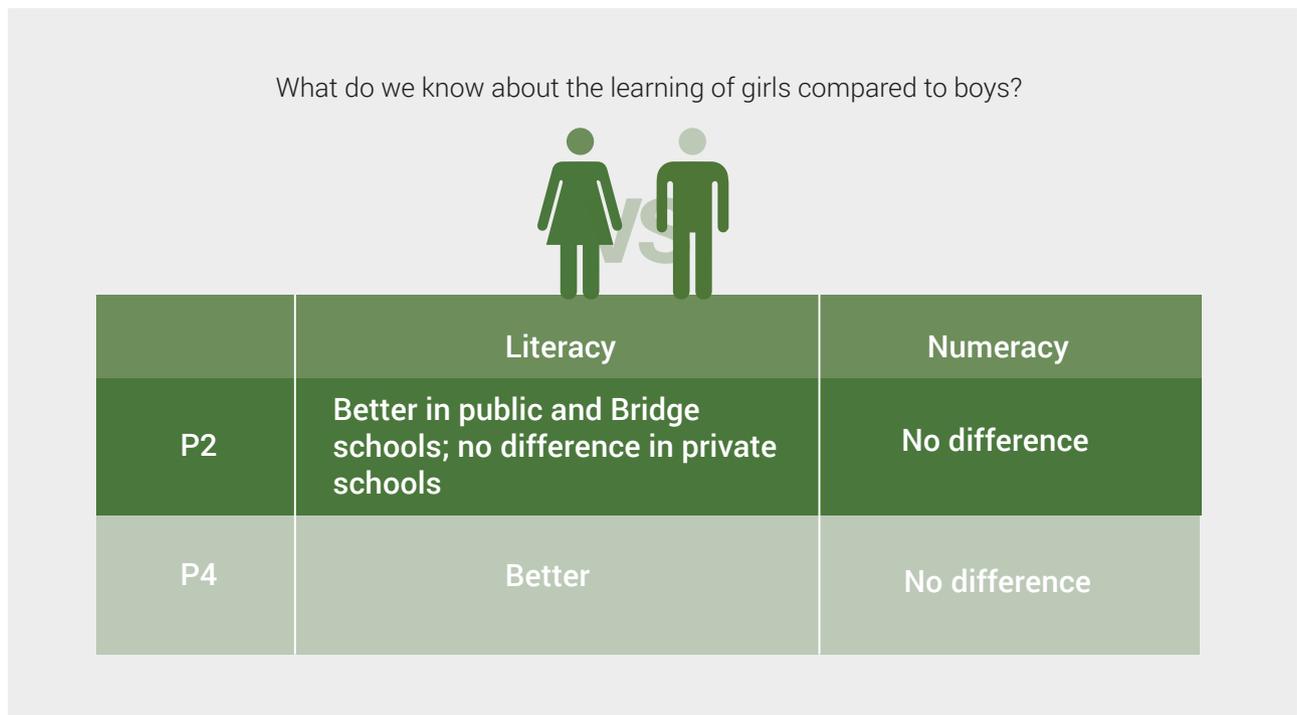
At the P2 level, students in private schools (but not in Bridge schools or public schools) who primarily speak English at home do better in literacy than students who speak other languages.

This is supported by the DEEPEN baseline findings. At the P4 level, pupils who speak Yoruba as the main language perform less well in literacy compared to peers who speak other languages as the main language at home.

There are no associations between the language spoken at home and numeracy achievement at P2 level and P4 level.

<sup>1</sup>Unless otherwise stated, results relating to P2 are from the Bridge study and P4 results are from the P4 Comparison study. All results reported from our studies are statistically significant at 5% level of significance, unless otherwise stated.

## Girls versus boys



All of the schools have on average the same number of girls and boys. Other studies have found similar trends in Lagos.

This is significant especially when compared with Northern states where disparity in enrolment rates reveal severe barriers faced by girls to access education.

At P2 level, girls perform better than boys in literacy within public schools and Bridge schools. There is no statistically significant difference in literacy outcomes across gender in private schools. There is no difference in numeracy between girls and boys in any school type.

At P4 level, girls perform significantly better than boys in literacy in both private and public schools, though the significance of the correlation is weaker in private schools. There is no difference in numeracy between girls and boys in any school type.

## Teacher qualifications

**47%** OF TEACHERS IN PRIVATE SCHOOLS DO NOT HAVE TEACHING QUALIFICATIONS



THIS COMPARED TO

**22%** FOR BRIDGE

AND

**16%** IN PUBLIC SCHOOLS

There is no consistent relationship between teacher qualifications and learning achievement. At the P2 level, neither teaching degrees (i.e. Nigeria Certificate for Education, Diploma Certificate for Education, etc.) nor Bachelor's degrees appear to be significantly correlated with learning. Though seemingly counterintuitive, this is consistent with longitudinal evidence from Andhra Pradesh in India across public and private schools, which finds that teacher training, university qualifications, and even content knowledge are not correlated with mathematics achievement <sup>viii</sup>.

## School Management

### GOOD MANAGEMENT MATTERS FOR LEARNING IN PUBLIC AND BRIDGE SCHOOLS



Bridge schools have a high management score as compared to public or private schools. This appears to be driven by above average performance in all sub-categories of management, and particularly operations and people management. Across school types, the lowest scores were for target setting, which suggests that few schools in Lagos link school management practices with robust measures of school quality such as learning outcomes.

Quality of school management is strongly correlated with literacy and numeracy. A 1-point increase in the school management score (e.g. the transition between no evidence of a good practice to some evidence of a good practice) is associated with 0.19 standard deviation (SD) higher literacy scores in Bridge schools, and 0.30 SD higher literacy scores in public schools. In Bridge schools, better management is correlated with numeracy scores which are 0.29 SD higher. In the education literature, an increase of less than 0.1 SD is typically considered a small effect, while an increase of more than 0.3 SD is considered a large effect, and an increase of more than 0.5 SD would be a very large effect. Recent studies in Uganda, India, and Liberia uncover strong and significant relationships between school leadership and management and learning outcomes.<sup>ix</sup>



Which private schools provide the best value for money (VfM) to parents? We ask: holding pupil background characteristics constant, how much learning is correlated with attending private schools and Bridge schools per NGN spent by parents?



We find that the same amount of NGN “buys more literacy” in Bridge schools as compared to non-Bridge low- and medium-cost private schools (consistent with findings in the previous analysis). For numeracy, parents’ money appears to equally well spent in Bridge schools as in other private schools. Thus, for literacy outcomes, attending a Bridge school in Lagos may constitute better VfM from a parents’ perspective relative to a comparable low- or a medium-cost private school.



Value for money from a parents’ perspective, however, is not the same as value for money from a policymakers’ perspective.

This is because while a parents’ costs are the fees paid to a school, a policy maker has to consider, firstly, the actual cost of providing an education to a child and, secondly, whether plausible alternative investments of taxpayer money in a specific context are more cost-effective.



# RECOMMENDATIONS

**1. Donors should continue to support public school reform in Lagos.** While significantly outnumbered by private schools, public schools in Lagos continue to disproportionately educate the poorest children and children who do not primarily speak English at home.

**2. Donors should consider direct provision of management training and school improvement services to private schools and public schools.** The strong correlation between school management and higher literacy and numeracy achievement means that supporting better managed schools or direct support to improve school management could raise student achievement.

To implement this, schools could be monitored based on 5 dimensions of good management: target-setting, operations, monitoring, people management, and leadership.

**3. Donors should consider different models of direct financial support to private schools. Bridge International Academies,** which received a direct grant from DFID, may provide parents with better value for money in literacy, but not numeracy, compared to private schools which did not receive a subsidy. Our research cannot attribute quality improvements to the subsidy, but it does raise important questions for further research. Could experimenting with supporting other private schools through direct subsidies result in further learning gains at lower cost to the taxpayer?

The form of subsidy should be carefully considered.

**4. Donors should consider supporting students to attend private schools through vouchers or subsidies on a pilot basis.** This could potentially allow the poorest to switch from lower quality public schools. These pilots should be carefully evaluated to draw out policy lessons keeping in mind long-term systemic implications on public provision of education.

**5. Donors should continue to advocate with government for better regulation. As part of the DEEPEN programme,** rules and standards aimed at improving the ecosystem around private provision succeeded in changing government perceptions and practices vis-à-vis private schools.

Such interventions hold promise for producing a more favourable regulatory environment for private schools without compromising quality standards imposed by law. Note, however, that the findings in this brief do not suggest a strong correlation between tight regulations around teacher qualifications and achievement.

**6. Donors should continue to support the development of the market for financial services.** Encouragement to the market for financial services by DEEPEN has resulted in some financial providers developing products aimed at low cost private schools.

Further support to the financial services market could make it possible for more schools to access not only smaller working capital loans but also larger loans for quality improvement.

Study Name	Developing Effective Education Nigeria (DEEPEN) evaluation (2014-2018)	Comparing Learning Outcomes in Public and Low- and Medium- Fee Private Schools in Lagos/ P4 Comparison study (2016)	Learning in Lagos: Comparing Student Achievement in Public, Private and Bridge Schools / Bridge study (2018)
<b>Study information</b>	<p>EDOREN conducted the baseline evaluation to DFID funded DEEPEN programme in Lagos. The baseline included a comparison of learning outcomes in low- and medium-cost private and public schools in Lagos. The DEEPEN baseline findings suggested that learning outcomes among Primary 2 (P2) pupils were higher than assumed (while leaving significant room for improvement) at the inception of the programme. Public school pupils were tested at the end of P2 and private school pupils at the beginning of P3 (with Ebola scare and other external factors delaying the survey) – comparison of learning outcomes considered the extra months of teaching received by private school students.</p> <p>Due to factors outside our control, the learning outcomes comparison at endline was not undertaken in 2017. The endline was designed instead as a qualitative study to understand mechanisms being programme successes and pitfalls.</p>	<p>DEEPEN baseline findings raised some important questions about comparing learning outcomes in government and private schools, to which the baseline evaluation was unable to provide rigorous answers due to methodological and timeline constraints. While the DEEPEN evaluation focused P2 pupils, questions related to Primary 4 (P4) achievement were raised. Thus, EDOREN studied learning outcomes at the Primary 4 level, to further interrogate findings from DEEPEN baseline on (sustaining) learning outcomes.</p> <p>A series of methodological and analytical steps were taken to ensure comparability between learning outcomes in low- and medium-cost private schools and public schools. These included a sampling strategy that provided us with a representative sample of public schools in Lagos and a parallel set of private schools selected by following school- and pupil-level sampling consistent with that in public schools. Public and private school students were tested in parallel, between April and May 2016. The survey instruments were designed so as to</p>	<p>Bridge schools are managed by the Bridge International Academies which is a for-profit education company using an education model that leverages technology and scale to deliver pre-primary (nursery and kindergarten) and kindergarten) and primary school education.</p> <p>Bridge opened its first schools in Lagos in September 2015. In 2017, it received a grant through DFID's DEEPEN Innovation Fund to expand operations in Lagos. The DEEPEN Innovation Fund aimed to increase competition in the low-cost education market and to improve quality in low-cost schools in Lagos. This study is the first step in assisting DFID to understand the value of its investment in supporting Bridge to enter the Lagos market.</p> <p>This comparative study is designed to describe the learning levels of students in Bridge, public, and private schools in Lagos and identify factors that may help account for differences in achievement.</p>
<b>Key definitions</b>	<p>We follow Tooley (2013) and define low-cost schools as those charging parents 25,000 Naira or less (including fees and other school costs, but not transport, books or extra tuition) per annum. Medium-cost schools charge between 25,000 and 50,000 Naira per annum.</p> <p>Public schools are those identified as so by the Ministry of Education, Lagos.</p>	<p>Low- and medium-cost private schools are defined as per Tooley (2013).</p> <p>Public schools are those identified as so by the Ministry of Education, Lagos.</p>	<p>Donors should also continue to support private schools in Lagos. The size of the private school sector means that engaging with the sector is indispensable for raising the achievement of students in Lagos. The experience of DEEPEN suggests that it is possible to improve outcomes in private schools, through both direct support to private schools and market system approaches.</p>

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<b>Sampling</b>	<p>358 low-, medium-cost, and high-cost private schools were randomly sampled to be representative of the four LGAs – Shomolu, Alimosho, Ojo, Ajeromi (the LGAs were selected based on plans to roll out the Graded Assessment of Private Schools under DEEPEN programme) – from which they were drawn and are not representative of the city of Lagos as a whole. This sample had 255 treatment schools and 103 control schools. From each school, 4 teachers and 8 primary students were selected in each sampled private primary school by random systematic sampling from the list of eligible teachers and eligible pupils respectively.</p> <p>The DEEPEN baseline also data collection in 12 schools selected purposefully as case studies in Ojo and Alimosho. This included 4 public schools.</p>	<p>80 low- and medium-cost private schools and 80 public schools were randomly selected.</p> <p>The sampling frame for private schools was the Lagos Private School Census and public schools were randomly selected from Education Sector Support Programme in Nigeria (ESSPIN) 2016 composite survey sample frame to facilitate comparison with ESSPIN and DEEPEN baseline results.</p> <p>The sampling procedure employed was with an implicit stratification by LGA, in order to ensure a high degree of sample representativeness.</p>	<p>The sample size included all 37 Bridge schools. 49 low- and medium-cost private schools from the P4 Comparison study sampling frame were matched with these Bridge schools (along school fee, number of students and location).</p> <p>38 public schools closest to the sample of Bridge schools were then drawn from the same frame to enhance comparability of results.</p>
<b>Data collection</b>	<p>Data collection consisted of:            2,444 students tested in literacy and numeracy;            1,251 parents surveyed (of sampled children);            1,266 teachers interviewed;            352 classrooms observed;            358 head teachers interviewed.</p>	<p>Data collection consisted of:            1,383 students tested in literacy and 1385 tested in numeracy.</p>	<p>Data collection consisted of:            1,609 students tested in literacy and numeracy;            1,324 parents surveyed (of sampled children);            120 teachers interviewed;            233 classrooms observed;            124 head teachers interviewed using management tool adapted from recent studies in Uganda and Liberia .</p>

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