

Making Progress: Report of the Young Lives School Survey in Vietnam

Introduction

Achieving universal access to good quality basic education is a key priority for Vietnam, as it is for other rapidly developing countries. Improving educational opportunities may be expected to play a role in reducing economic and social inequalities. However, attending school is only one set of influences on a child's learning development, and even in an equitable education system, home background and contextual influences may perpetuate or widen differences in learning progress between more and less advantaged pupils.

This note provides new summary evidence on these issues from Young Lives - a longitudinal study of childhood poverty following the lives of 12,000 children in Ethiopia, India (in the state of Andhra Pradesh), Peru and Vietnam over 15 years (www.younglives.org.uk). The analysis presented here is based on a longer research report, *Making Progress: Report of the Young Lives School Survey in Vietnam* to be published later in 2013.

The analysis builds on the longitudinal survey of all the Young Lives children and their households (on-going, with data collected since 2002), with the addition of a school survey carried out during the school year 2011–12. Data was collected from 3,284 Grade 5 pupils, in 176 classes in 56 schools or 92 school sites (with satellite sites considered separately from the main school). All of the children completed an interview questionnaire and were tested in Mathematics and Vietnamese at both the start and end of the school year. Each test had 30 multiple choice questions, designed to test knowledge of the curriculum. Questions were of varying levels of difficulty making it easier to separate out low- and high-performing students. Both tests contained a number of common (anchor) items.

This design makes it possible to answer key questions about children's learning and their learning progress as well as the effectiveness of schools and teachers in delivering progress in relation to the curriculum (often referred to as the 'value-added' of schooling). The study was conducted in the 20 Young Lives study sites which are situated across five selected provinces (Ben Tre, Danang, Hung Yen, Lao Cai, and Phu Yen). The unique combination of longitudinal data about the children and their backgrounds and the focus on effective schooling adds to the evidence available in existing cross-sectional studies conducted by MOET and the World Bank, and is the first of its kind in Vietnam.

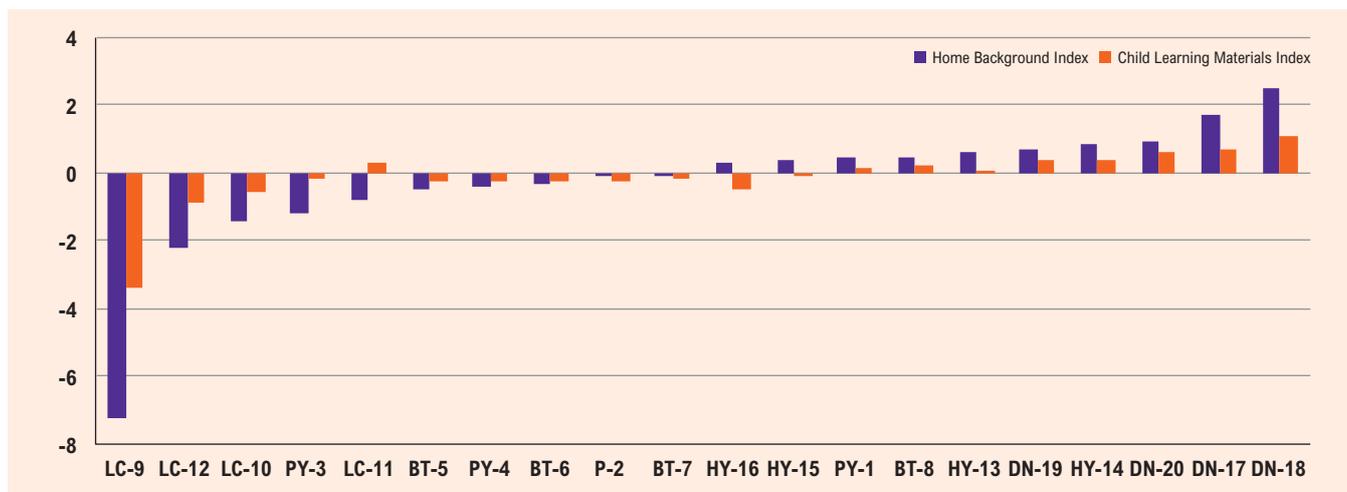
Specifically, we examine how children's progress in Mathematics and Vietnamese reading during primary Grade 5 is linked to their schooling and home backgrounds, and how these factors influence the evolution of 'learning gaps'. Table 1 gives details of the sample.



Table 1. The Young Lives school survey sample

	School sites	Classes	Pupils	Classes per site	Pupils per site
Ben Tre	15	34	680	2.3	65.3
Danang	15	48	944	3.2	62.9
Hung Yen	7	21	443	3.0	63.3
Lao Cai	37	41	595	1.1	16.1
Phu Yen	18	32	622	1.8	34.6
Total	92	176	3284	1.8	35.7

Figure 1. Children's home background and learning materials by site



Pupils' backgrounds shape opportunities to learn

Pupils in areas of low home advantage typically reported having lower levels of access to learning materials (illustrated in Figure 1), and were in schools and classes with poorer facilities. These differences are widest when comparing the very poorest children with the rest. The most disadvantaged sites are mostly in Lao Cai province, while the most advantaged are predominantly in Danang. Pupils in the more advantaged sites were notably more likely to use a computer outside school. Almost all children had access to a copy of the core Maths and Vietnamese text books for 'their own use'. Five of the study sites have significant numbers of ethnic minority pupils, and these sites are the most disadvantaged in terms of children's home backgrounds. Pupil absence from school is low across all sites and family size is typically small. Among the sampled students, 6% were identified as 'over-age' for their grade.

School, class and teacher quality indicators

In all of our study sites, the majority of schools had working toilets and electricity. In the most disadvantaged sites, schools usually had a larger number of satellite schools, a higher percentage of ethnic minority pupils, and a smaller number of pupils enrolled in total. Children in poorer sites were less likely to be in schools that had libraries, computers or the internet. Pupils in poorer areas also typically experience poorer class assets, fewer periods of instruction, and smaller class sizes (reflecting the smaller schools in rural areas). Levels of class assets in the schools increased fairly

consistently as the levels of children's home background advantage in the site increased. Teachers' reports of pupils' ability showed a similar pattern to the Young Lives test results, indicating that teachers had good knowledge of their pupils' levels of attainment.

Instructional hours

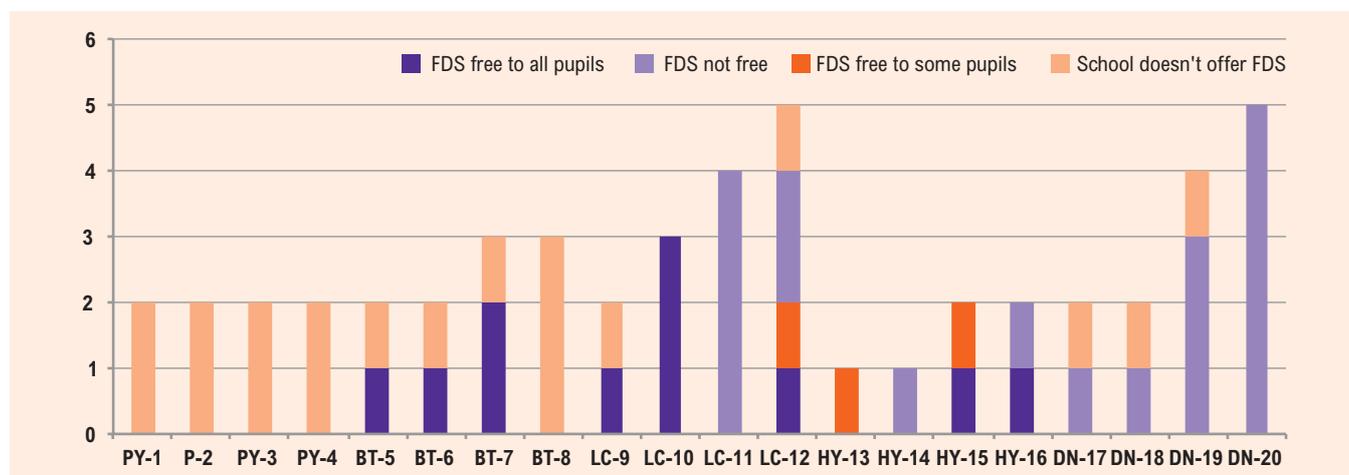
Instructional time has been identified by MOET as a key area of policy intervention, with the aim of moving toward full day schooling (FDS), with 30 and then 35 instructional periods per week by 2020 and 2025 respectively. Vietnam has some of the lowest formal instructional hours in Asia, and evidence from the 2007 MOET and World Bank reading and mathematics assessments identified a positive relationship between schools in which a larger proportion of children received full-day schooling and pupils' Maths and Vietnamese scores (although there remains some debate as to the relative effectiveness of FDS in boosting performance as against other investments). Two Young Lives provinces (Lao Cai and Ben Tre) contain districts which are covered by SEQAP (the School Education Quality Assurance Programme) and the school survey collected a range of data on instructional hours, at the school, class and child levels.

At the school level, 51% of head-teachers reported that their school offered FDS to all pupils and a further 11% reported offering it to some pupils. Among the schools whose head-teachers stated that they offered FDS to all pupils, the overwhelming majority (75%) reported offering it every day of the week. Just under half offered it at a cost to parents, and around 40% offered it free to all pupils. The pattern of whether or not fees were levied varied across sites: where FDS was provided, head-teachers in Ben Tre and Phu Yen stated that it was offered free of charge, while head-teachers in Danang reported levying charges.

1 The home background score was computed using a set of indicators including asset ownership (telephone, television, study-desk, fan, computer, bicycle, study-chair, air-conditioning, internet, radio, motorbike, study-lamp, car), plus variables to indicate that a child has his or her own place to study, the number of meals eaten per day, the number of books in the household, whether Vietnamese is spoken at home (or another language), ethnic minority status, and parental levels of literacy.

2 The class-assets index was computed using a set of indicators for materials and facilities available, comprising lighting, fan, reading books, chalk board, cabinets, wall map, teacher's desk, television, radio, computer and overhead projector.

Figure 2. Number of school groups offering Full Day Schooling free of charge, by site



There was considerable variation in the numbers of lesson periods provided. In Phu Yen, head-teachers reported that FDS was not offered, and consistent with this, the number of periods per week in classes surveyed was always less than 30. In sites BT-5 and BT-6 in Ben Tre, where head-teachers in all schools had reported that FDS was offered, a great deal of variation existed in the number of instructional periods between classes. In Lao Cai, although head-teachers stated overwhelmingly that FDS was available, the number of instructional periods was most commonly 25 or fewer. In Danang, while there was variation both within and between sites in head-teachers' reports of whether FDS was offered, it is evident from our class-level data that the majority of classes received 35 or more periods of tuition per week in all but site DN-18. This data highlights the need to understand how the provision of FDS is being implemented and interpreted.

Achievement and learning in Mathematics and Vietnamese

At the beginning of the school year, pupil achievement levels in Maths and Vietnamese were highest in Danang and lowest in Lao Cai. In terms of the learning gain during the school year, however, larger than average gains were observed in the four least-advantaged sites in both Maths and Vietnamese. This is one of the most positive findings of our research, suggesting that schools are successful in helping disadvantaged children to 'catch-up'. Similarly, while pupils from the Kinh majority ethnic group showed higher levels of learning achievement than ethnic minorities at both the beginning and at the end of the year, the gap was found to be narrowing over time. Although linked to the lower starting points of non-Kinh children, these findings do indicate that curricular mastery among ethnic minorities improves notably during Grade 5.

Learning progress in Grade 5 and pupils' backgrounds

Girls performed better than boys in Vietnamese at both the beginning and end of the school year, with the 'gap' remaining very similar at both points in time, indicating no change in the relative advantage of girls in Vietnamese.

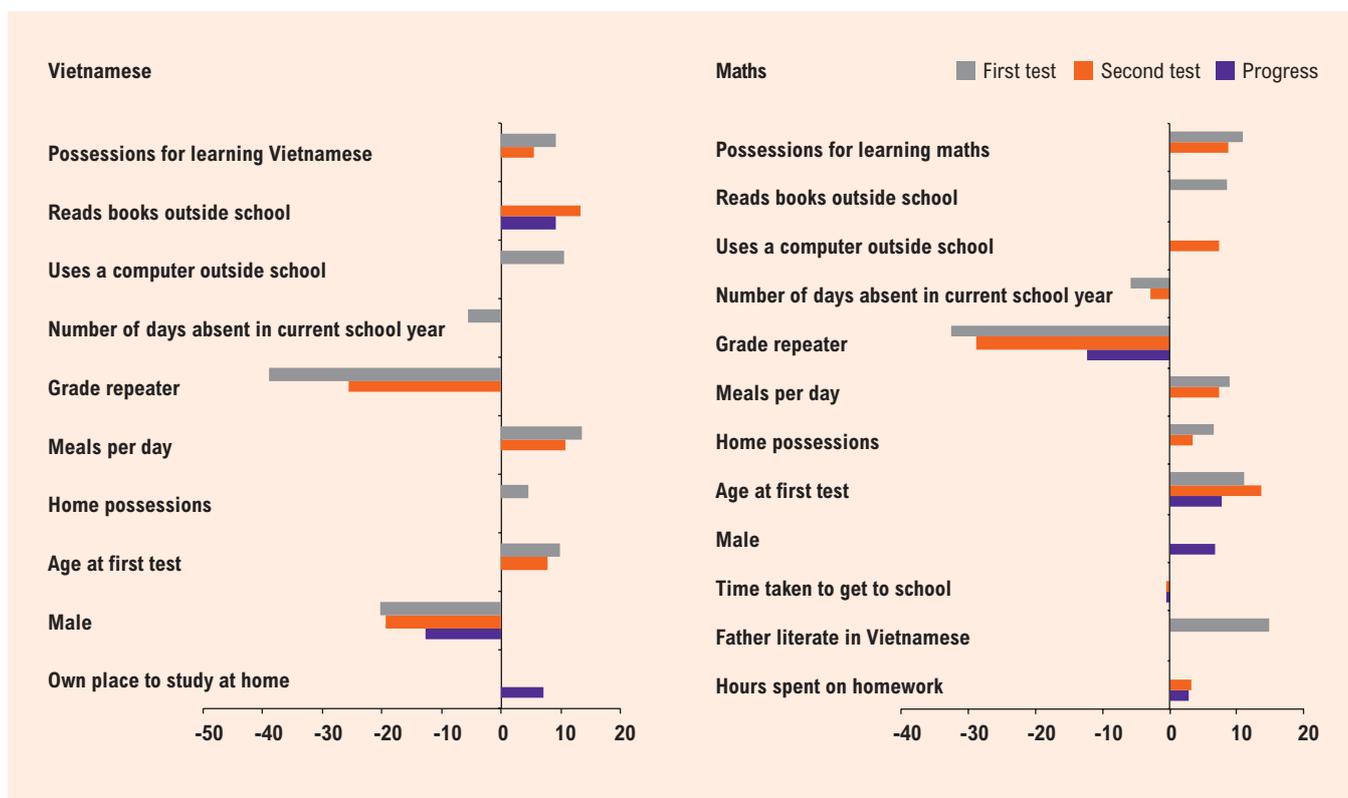
Children born earlier in the calendar year performed better in both subjects at both stages of testing. In both the first and second tests, whether children had access to learning materials such as books and computers was typically associated with better results. More meals per day was also associated with better test scores. For Maths, children who did more homework made slightly more progress, as did older children and boys. In Vietnamese, children who read books outside school and who had their own place to study made better progress. Having repeated a grade was consistently related to lower scores, including when controlling for prior scores. The effect of ethnic minority status is found to be negative at the beginning of the year, but at the second test and in terms of progress, differences are not significant, indicating some reduction in the 'gap' in terms of curricular mastery between minority pupils and Kinh even when prior scores are fully accounted for. This is another positive indicator of the effectiveness of schools. It suggests that the origin of the gap lies primarily in earlier experience since there is no evidence of worsening inequality in Grade 5.

Table 2. Summary of test results and progress over the school year

		Maths			Vietnamese		
		October 2011	April 2012	Gain	October 2011	April 2012	Gain
Average		500	540.06	40.06***	500	513.93	13.93***
Gender	Girl	503.05	540.69	37.64	514.57	528.16	13.59
	Boy	497.33	539.38	42.05	487.54	500.95	13.41
	Difference	5.72**	1.31	4.41*	27.03***	27.21***	0.18
Ethnicity	Kinh	509.59	546.05	36.46	511.65	518.29	6.64
	Ethnic Minority	434.01	497.91	63.90	420.16	483.30	63.14
	Difference	75.58***	48.14***	27.44***	91.49***	34.99***	56.50***

*** t-test of the difference in means significant at the 1% level

Figure 3. Background characteristics, test scores and progress



Results shown are statistically significant ($p < 0.05$ or higher).

Learning progress and school, class and teacher factors

School-level analysis suggest that pupils in the most disadvantaged group do not attend schools with lower than average overall student progress (suggesting schools are 'adding value'). The evidence that more disadvantaged pupils are 'sorted into' lower quality schools is relatively weak. However, substantial differences in school effectiveness were found between schools in the sample. High-performing schools were found to have notably better facilities and were more likely to have separate classrooms, working electricity, and a higher proportion of teachers who were qualified to degree level. In addition, the head-teachers of these schools were less likely to originate from the province where the school was located and the school was less likely to admit all pupils who apply.

Table 3. Differences between schools that add high and low value to pupil learning

	High value-added schools	Low value-added schools	Sig.
School Facilities Index (average of school sites)	0.55	0.34	
Each Grade 5 class has a separate room (%)	100	80	*
Working electricity available (average of school sites) (%)	100	79	*
Head-teacher originates from the province (%)	33	80	**
All children who apply gain admission (%)	78	100	*
Teachers with degrees (%)	83	63	*
Average Maths score (First test)	502.52	486.72	
Average Maths score (Second test)	571.85	500.67	***
Average Vietnamese score (First test)	497.64	490.18	
Average Vietnamese score (Second test)	554.33	481.41	***
Average Pupil Background Index	-0.43	-0.50	
Ethnic minorities (% of pupils)	31	17	

t-test significance:*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Schools were defined as high/low value added when they were in the top/bottom of schools, ranked by value added in both Maths and Vietnamese

While disadvantaged pupils were found to attend slightly lower quality schools, some of the highest performing schools in terms of value-added serve relatively disadvantaged school populations. In terms of the class-level factors that add value, pupils in high performing classes tended to have higher levels of class assets and facilities, fewer children arriving late each day, children who ate more meals per day and had higher levels of home-possession, and teachers who were more likely to have permanent contracts. Teachers were

asked to respond to attitude statements and teachers in high performing classes tended to demonstrate a higher sense of their own ability to improve children's learning. In poor-performing classes there were more grade repeaters and boys. There is little relationship overall between class-level disadvantage and the total value-added at school and class-level combined, indicating that on balance the relationship between school quality and pupil backgrounds is weak.

Table 4: Differences between classes that add high and low value to pupil learning

	High value-added classes	Low value-added classes	Sig.
Class characteristics			
Class Assets Index	0.16	-0.21	*
Adequate electric lighting (%)	100	93	*
Fan (%)	97	79	**
Overhead projector (%)	12	0	**
Storage cabinet (%)	91	76	**
Teacher characteristics			
Temporary contract (%)	0	7	*
Teacher originates from the province (%)	62	83	**
Number of evaluations of the teacher last year	8.38	6.17	*
Teacher does additional work outside school (%)	6	17	*
Number of homework tasks set per week in Maths	2.53	4.31	**
Number of homework tasks set per week in Vietnamese	3.82	6.17	**
Pupil characteristics (Class average)			
Boys (%)	50	54	*
Average of Home Possessions Index	0.12	-0.21	*
Average of Background Index	-0.02	-0.25	
Number of minority pupils (%)	17	10	
Average hours of extra classes in 'Other subjects' attended	0.65	0.28	**
Number of Grade repeaters (%)	3	7	***
Average number of meals eaten per day	2.89	2.82	*
Teacher reports about pupils (Class average)			
Vietnamese score (0-10 scale)	8.22	7.75	**
Maths score (0-10 scale)	8.39	7.68	***
Academic ability (1-5 scale)	3.64	3.49	**
Problem of lateness (a major or minor problem)	0.26	0.45	**
Problem of lack of materials among pupils (major or minor problem)	0.24	0.48	**
Teacher attitudes (1=strongly agree 2=agree 3=disagree 4=strongly disagree)			
The amount a student can learn is primarily related to family backgrounds	3.08	2.82	**
I have not been trained to deal with many of the learning problems my students have	3.00	2.79	*
I am very limited in what I can achieve because a student's home environment is a large influence on his/her achievement	1.97	2.17	*
The influence of a student's home experience can be overcome by good teaching	2.03	2.28	*
Even a teacher with good teaching abilities may not reach many students	2.94	2.69	*
Pupil test scores (Class average)			
Average Maths score (First test)	520.17	503.40	
Average Maths score (Second test)	612.03	496.13	***
Average Vietnamese score (First test)	522.10	500.96	*
Average Vietnamese score (Second test)	588.05	466.91	***

t-test significance:*** p<0.01, ** p<0.05, * p<0.1. Classes were defined as high/low value added when they were in the top/bottom of classes, ranked by value added in both Maths and Vietnamese

Learning progress, academic self-concept and academic stress

Gender and ethnic group differences are found in children's academic self-concept, with girls demonstrating higher academic confidence and academic effort scores than boys. Higher academic confidence and academic effort scores are linked to higher cognitive achievement in Maths and Vietnamese; a positive relationship being found at the beginning and end of the school year. With regard to academic confidence, there is a significant relationship with both initial test scores and with the end of year test-score in Maths when controlling for prior scores, indicating that academic confidence has a beneficial effect on academic progress in both subjects.

Key findings

- Gaps between groups of children are well established by Grade 5. Student scores at the beginning of the school year are predictive of later scores, related in part to their household background and early schooling. This draws attention to the importance of focusing on children's learning in the early years, to improve learning overall.
- There is evidence of differential progress made during Grade 5. More advantaged pupils tend to make slightly more progress, but there is also encouraging evidence of relative catch-up by minority ethnic groups in relation to the Grade 5 curricula.
- Some schools and classes make a bigger contribution than others to how children learn. These effects can be large, and greater than the differences in the gains made between social groups.
- Key factors that emerge as important to consider at the school and class level include better facilities (including separate classrooms and working electricity), teachers who have a degree, and teachers who feel equipped to positively affect the learning of their students.

We look forward to discussing what the implications of the school survey findings may be for policy.

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Young Lives is a long-term study of childhood poverty following the lives of 12,000 children in Ethiopia, India (in the state of Andhra Pradesh), Peru and Vietnam over 15 years. Young Lives is a collaborative partnership between research and government institutes in the four study countries, led by a team at the University of Oxford.

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