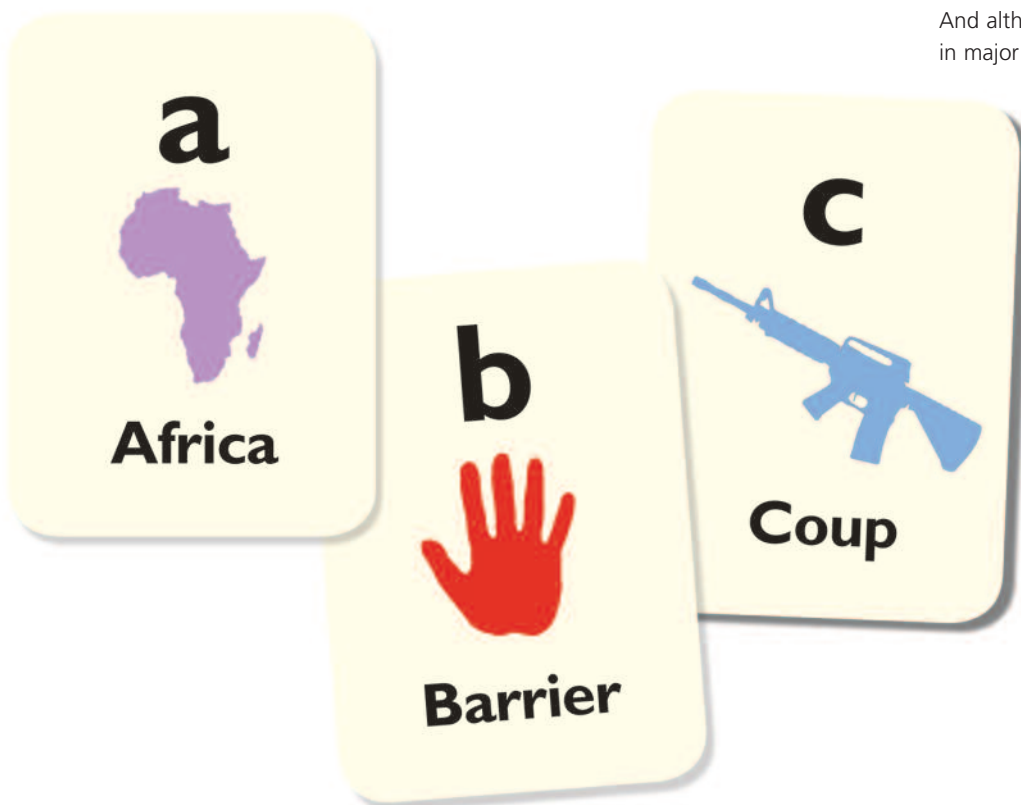


For the past few years, **Peter Boone** and his colleagues at Effective Intervention have been running primary school education projects in two of the poorest parts of the world – the rural villages of Andhra Pradesh, India, and Guinea-Bissau in West Africa. As he recounts here, the experiences and outcomes could not have been more different.

For the last two decades, global poverty has been in sharp decline. Developing countries' incomes are up, population growth is slowing, health indicators are improving and education levels are on the rise. As a result, the global map of poverty is now changing. Poverty tends to be localised in regional 'pockets', where very poor public services mean that these populations remain isolated from the global growth that surrounds them (see Figure 1 for an indication of contrasting rates of literacy across the world).

In northern Nigeria, for example, one in four children die before the age of five, while the south of the country is booming. And although there is excellent healthcare in major Indian cities, nearly one in 10 newborn babies in nearby rural districts die before they are 30 days old.

At Effective Intervention (the organisation I chair), we are hoping to contribute to reducing extreme poverty in such regions, both directly and through research. Our focus is on improving the conditions of children so that they can survive, be healthy and have a better education, making them more able to participate in the global growth around them.



Improving education in two extremely poor regions: triumph and tragedy

Education in 'pockets of poverty'

For several years, we have been working on two primary school education projects (as well as child and maternal healthcare projects) – one in poor villages in the Indian state of Andhra Pradesh; and the other in remote villages in Guinea-Bissau, a small country in West Africa. As elsewhere in the world, in each of these places, reported primary school enrolment has shot up to near 100%. But closer inspection shows that the actual outcomes are poor.

In India, the Pratham Institute helps coordinate an Annual Status of Education Survey (ASER, 2013) testing children's numeracy and literacy. In rural India, they found that only 40% of children in Grade 3 (ages 8 to 9) could read a Grade 1 text. In arithmetic, 59% of children in Grade 4 could not subtract two numbers.

We conducted a similar survey in Guinea-Bissau, covering 20% of the country's small and medium-sized villages. We tested 9,947 children aged 7-17 for literacy and numeracy competency.

The children's learning outcomes can only be described as dire. The tests are quite simple: for numeracy, children are

asked if they can recognise single digit numbers: if they can, we then asked if they could add two single digits. If so, they were asked to subtract, then multiply and finally divide. The reading test started with recognising letters, then words, reading a sentence and then a paragraph.

According to the national curriculum, the children should have been able to complete both tests by the age of 10, yet only one 10 year old in the whole country successfully completed both tests. We found that only 27% of children who were tested were able to add two single digits; and in reading, 81% were unable to comprehend beyond a single word. While reading required knowledge of the national language, Portuguese, the maths tests (which were not written) could be completed in tribal languages.

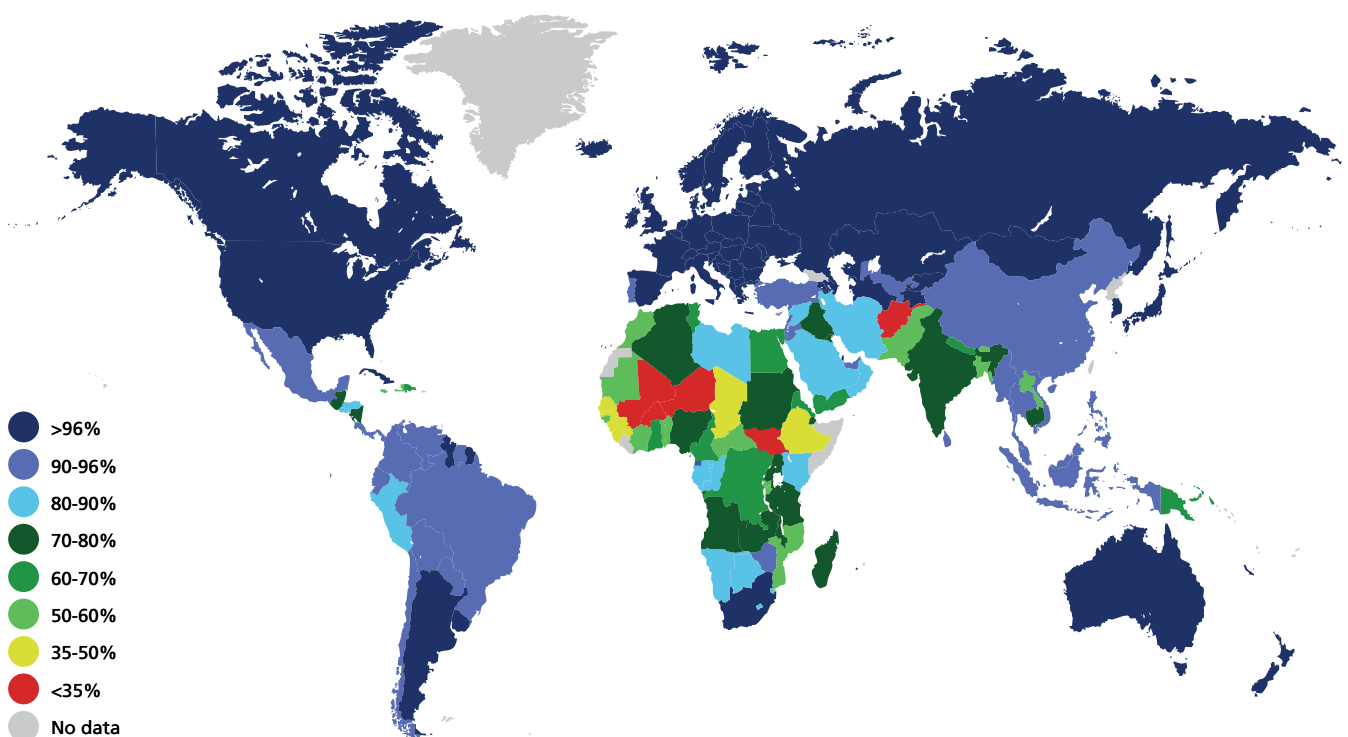
Figure 2 shows the pattern of learning in maths for an average child. They obviously learn very little, but the reason is difficult to know. Children do go to the schools – in our spot checks, we found that 86% of teachers were attending class and 72% of enrolled children were present. And a majority of the schools provided school lunches funded by the United Nations. The equipment and

facilities were generally poor, but we did not find learning outcomes were much better for well-equipped schools, nor for private, community or missionary schools.

In general, the results showed that despite going to school, very few children were learning anything anywhere. This pattern of high enrolment ratios yet little learning, especially in the 'pockets of poverty' we seek out, is common in our experience. The regions typically suffer from problems that would suggest schools offer little learning (poor equipment and texts, high teacher and student absenteeism, lack of supervision, etc.), as well as reasons to think parents and

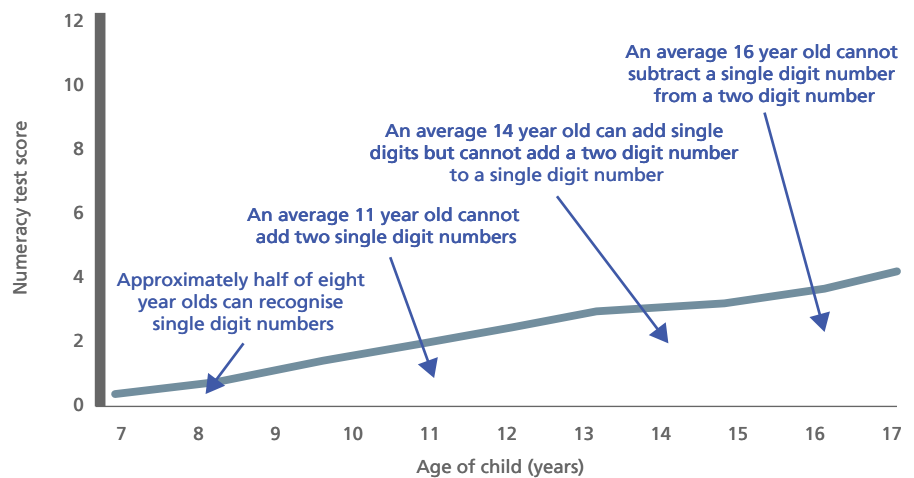
Our survey of literacy and numeracy in Guinea-Bissau shows that very few children are learning anything anywhere

Figure 1:
World literacy rates, 2011



Children in Indian villages benefitting from two years of extra education scored significantly higher on tests

Figure 2: Numeracy test score outcomes from 9,477 children in villages in Guinea-Bissau



children may not demand, or seek out, quality schools (child labour, little use for reading and maths in remote villages, etc.). The relative importance of such explanations for poor education outcomes is less clear.

It is tempting to assume that demand factors are driving poor outcomes in Guinea-Bissau given the uniformly poor outcomes across many school types and villages. But we also surveyed parents and they claimed to put a high value on education for their children. There is substantial evidence that the returns to education are high in Africa: Guinea-Bissau is unlikely to be an exception. There is also little need for child labour in these remote villages. The children do attend schools, but they simply do not learn much.

Supply factors are an alternative explanation. When the state is incapable or unwilling to provide quality education, it is not easy for local villages to provide a substitute. Parents who themselves are uneducated cannot easily judge the quality of teaching. They need to coordinate many activities: raising regular funding, buying text books and other school materials, finding good teachers willing to live in the village and ensuring that the teachers actually teach and the children attend.

Spectacular success in India

In India, we partnered with the Naandi Foundation to run an aid programme where we hoped both to improve children's outcomes and to get a better

grasp of what is causing poor school outcomes. We worked in 214 villages, randomly assigning half of them to receive an after-school supplementary education programme. The programme involved training young local residents educated up to Grade 11 (age 16) to provide children with two hours of daily extracurricular numeracy and literacy training.

We implemented the programme for two years. At the start and finish, we invited all children in the villages for testing, with independent groups implementing the tests. We compared the outcomes of children in the intervention and control villages.

The results of Naandi's programme were nothing short of spectacular (Lakshminarayana et al, 2013). The children who were living in villages offered the programme scored significantly higher on tests after two years of quality after-school training compared with the controls. This sort of increase is important if it can be sustained.

While there are no good Indian studies, various international comparisons and US studies show that such changes could lead to a 5-21% rise in average annual income over a lifetime. Higher test scores are also correlated with growth. A series of studies show that the quality of education outcomes, rather than the years of schooling, is most important when explaining differences in cross-country growth rates (for example, Hanushek and Woessmann, 2007).

Our experience in this study suggests that there is large, unsatisfied demand for

quality education in poor villages in India. The school programmes were well attended, the villages greatly appreciated them and average test scores of the whole village rose sharply. Based on these findings, we have expanded the project area to cover more than 400 villages, and we will provide the schooling to children for five more years. If India could manage to provide better education to similar villages across the country, they will probably take it up voraciously.

Attempted extortion in Guinea-Bissau

Our experience in Guinea-Bissau has been far less positive although it has provided some important insights into the challenges of making improvements in very poor parts of the world (Boone et al, 2013). Given the extremely poor test outcomes, in agreement with the Ministry of Education in Bissau (the country's capital), we decided it was best to create full-time quality schools for children.

The first hurdle in Bissau is finding teachers. Facing a shortage of teachers, the government asked that we train new teachers adequately for this programme. We advertised across the country for candidates who had been educated to at least Grade 11 and received approximately 1,000 applications. We then tested and interviewed candidates, reducing the acceptable number to 98 (although we had hoped for more).

We partnered with one of the leading Portuguese teacher training institutions to manage a one-year programme where

candidates were trained to instruct children in Grades 1-4. In the end, just 48 managed to complete the teacher training. Our plan was to start with them teaching Grade 1 and then follow children up to Grade 4, providing additional teacher training along the way.

With just four months until the schools were to open, our 48 candidate teachers arrived with demands that would have tripled their previously agreed salaries and substantially reduced our ability to supervise their work. They had formed a committee with a presidium and they wanted to change the terms of the contracts with us to which they had previously agreed.

At this stage, we had paid for one year of their training and provided them with a living allowance. We had informed them in their first interviews that if they were offered an employment contract, we would pay them roughly double the wage of existing teachers in Guinea-Bissau. The government had pressured us to not offer more so as to keep any programme sustainable and to avoid conflict with other teachers.

The candidates demanded a pay package that would mean their wages rising to over four times those of the average teacher and more than the pay received by public sector doctors, as well as cabinet ministers. They also demanded that we reduce the 'monitoring period' in the contract to a few weeks, making it near impossible to dismiss those who were not performing well enough at teaching the children. Even if we had agreed to their demands, they would

have had the opportunity to raise more in the future.

Our local employees (who were responsible for the management of both our education and health programmes) were shocked by the demands. At the time, Guinea-Bissau had just suffered a military coup and many official donors were cutting back on programmes. Some thought the candidate teachers wanted to 'grab all they could early' in case we left too. Our employees in unison advised us to refuse any of the demands and government officials in the Ministry of Education did similarly. We told the candidates that we would be prepared to hire anyone who wanted the original terms on offer, but we could not do more. The candidates decided to stick together and refused en masse.

For the next six months, we watched as the 48 candidate teachers marched across Guinea-Bissau's political map to try to extort a cash award from us. They met the Minister of Education, the Minister of Foreign Affairs, the Prime Minister, National Assembly leaders and many lawyers. Each time they managed to convene meetings that we were asked to attend and when all the facts were made clear, the candidate teachers received no support. But they did succeed (mysteriously) in convincing a judge to impose an injunction so that we were prevented from hiring any new employees for a period of six months (until it was lifted on appeal in a higher court).

In these situations, the troubles of countries in regular political turmoil become clear. We are aware of cases

where, under previous governments, public officials used biased courts or trumped up complaints effectively to confiscate assets of foreign NGOs as well as official donors. We were lucky that no one in the government or upper echelons of the military took the candidates' side. The international community, such as the United Nations and World Bank, strongly supported us. We had good legal advisers.

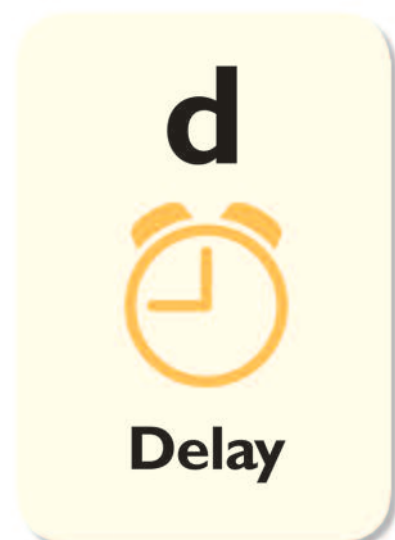
The teachers had many 'shots' at the goal and they might have easily won powerful backing along the way. There is also always the looming concern that violence could be used given the fragile security of the state. We repeatedly told all officials who we met that we would need to leave the country if we could not work according to the law of the land and be free from such heavy-handed pressures.

When a little education hurts

In simple economic models of extortion, the extorter benefits most when there are valuable assets that can be grabbed or incomes that can be appropriated regularly – and the assets/incomes need to be fixed in place. One advantage of education and health programmes is that there are few assets, apart from some vehicles and computers. The children gain human capital that cannot be taken away and that they can use anywhere.

Had the 48 candidates thought clearly, they would have realised that any pliant government or military officials would hardly see benefit from closing down our operations to gain such small amounts (and the candidates surely should have realised little of those gains would have

There is large unsatisfied demand for quality education in poor villages in India



gone to them in any case). Perhaps if we had had visible valuable assets in situ, the candidates might have had more success.

Lant Pritchett (2001) has made the provocative argument that sometimes education can hurt a country – for example, if better educated persons get employed in failing state-supported industries or if educated people tend to resort to ‘rent-seeking’ rather than socially productive works, the country could be worse off with education. But in our case, perhaps, if we had educated our candidate teachers on the economic benefits of extortion, they might have realised early they were backing a dead horse and needed to change course!

The tragedy of this is that no one wins. The children miss their chance of better schooling. The teachers lost the opportunity of a job. We, public officials and the courts all wasted our time. It also points out the difficulty of investing in these countries. The short time horizons of all the actors (including the government where ministers change frequently and the army where coups regularly topple generals) mean that people don’t value long-term relations, businesses and institutions that only pay a return on the investment slowly.

Our experience fits well with Paul Collier and Anke Hoeffler’s (2005) empirical work on ‘coup traps’, where they report that countries that suffer a coup tend to grow less quickly and are more likely to have further coups. Most businesses prefer to invest and grow elsewhere if they are threatened with extortion. But if you want to mine the minerals or your mandate is to work with troubled regions, you can’t simply move.

Future directions

We haven’t given up in Guinea-Bissau. We have instead hired 26 trained teachers, reduced the size of the programme, given them a rapid training programme and began pre-school activities in the spring of 2014. As with our tests in India, we will be comparing the outcomes of children in randomly selected villages who have been offered the quality schools with children in villages who continue to receive the standard programme. In a few years, we should learn whether there is strong, unfulfilled demand for education in these villages or whether some other factors can explain the consistently dismal educational

outcomes across the country’s rural areas.

The contrast between our experiences in India and Guinea-Bissau could hardly be greater. In 1945, just before Korea’s civil war began, adult literacy rates were 22%. Despite three years of war, 70% of adults were literate by 1970 and nearly 100% are literate today. UNESCO’s latest data show 63% of Indian adults are literate, up from 48% in 1991. What’s more, given the voracious demand for education that we and others have observed, literacy rates should rise rapidly in coming decades, similar to South Korea.

In Guinea-Bissau, our experience anecdotally illustrates the large hurdles to building quality education. It will be very interesting to learn whether, if we can break down the barriers to providing education, there is a strong underlying desire for quality education there too.



Our experience in Guinea-Bissau illustrates the hurdles to building quality education

Peter Boone is a research associate in CEP’s globalisation programme, non-resident senior fellow at the Peterson Institute for International Economics and chairman of Effective Intervention (<http://www.effint.org>), a charity based in the UK.

Further reading

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