

Market systems development in education? An experimental case from Nigeria

BEN TAYLOR, SARAH BARLOW,
and ROGER CUNNINGHAM

Education is one of the most significant and persistent development challenges globally. Despite 65 years of investment of aid money into education in developing countries, the number of children emerging with key skills remains critically low. While enrolment has increased, there is evidence that this is the result of target chasing and has had limited impact on educational outcomes. The limited impact of aid on education should not be surprising. At best, aid to education has provided only a small supplement to an already broken system. This paper proposes a framework for the analysis of the motivations of aid programmes, and then employs this framework to examine different approaches to education and the parameters according to which they have succeeded or failed. Using the framework to explain why prevailing approaches have resulted in the outcomes realized, the paper then examines the possibility for an alternative approach to be taken to intervention in education, one which attempts to change the way the education system operates to create a sustainable, large-scale impact. This potential is explored through an innovative programme being implemented in Lagos, Nigeria, which attempts to adopt such an approach.

Keywords: education, systemic change, M4P, Lagos, Making Markets Work for the Poor

THIS PAPER IS BOTH A THEORETICAL and an empirical treatment of the problems associated with education in developing countries. It develops a framework for assessing the impact of different approaches to intervention in education, which is then used to examine results in this context. The paper tests the logic underpinning the adoption of a market-systems development approach to intervention in education, before examining a programme which has sought to do so in both design and in early implementation. In summary, the paper argues for a realistic rather than ideological appraisal of education systems, and demonstrates the potential for intervention in these systems, guided by this framework of analysis.

Ben Taylor (btaylor@springfieldcentre.com) is Senior Consultant at The Springfield Centre for Business in Development, Durham, UK; Sarah Barlow (sbarlow@springfieldcentre.com) is Associate Director at The Springfield Centre for Business in Development, Durham, UK; Roger Cunningham (Roger.cunningham@sasa-hivi.com) is an independent consultant based in the UK.

© Practical Action Publishing, 2016, www.practicalactionpublishing.org
<http://dx.doi.org/10.3362/1755-1986.2016.004>, ISSN: 1755-1978 (print) 1755-1986 (online)

Scale of the problem

The scale of the challenge facing education systems in developing countries is vast, and while outcomes have improved in recent years by some metrics, growing populations continue to put pressure on quality of and access to education.

Education is both a relative and absolute problem in developing countries. There are issues with the minimum standards in mathematics and reading, for example, which have been demonstrated to be strongly correlated with reduced poverty. In relative terms, however, while developed countries maintain a higher level of education than developing countries, the division of labour and consequent returns to it will remain unchanged. To assess the scale of the problem in education in developing countries, therefore, one must look at both absolute and relative measures.

Comparing low- and high-income country averages (within which there is huge variation) for metrics of attendance and achievement provides a view of both absolute and relative problems. In terms of enrolment – where there has been far greater convergence than in attendance or achievement – primary school-aged children in 2014 were five times more likely to be out of school in developing countries than in high-income countries, with the difference greater for girls. For primary education there is a drop-out rate of 43 per cent in low-income countries compared with less than 5 per cent in developed countries (UIS, 2015).

There is no truly robust measure of quality in education as knowledge is inherently subjective. Perhaps the most robust measure is exam performance, assuming a curriculum and appropriate means for assessment can be found, but issues remain around teaching to tests, skewed incentives and corruption (Ladd and Loeb, 2013). Links between teacher qualification, pedagogical techniques, and the availability of materials such as textbooks or infrastructure all have their advocates as proxies (Baker and Bernstein, 2012; Schiefelbein and McGinn, 2013; Kolb, 2014; Shepherd, 2015). This paper does not seek to pass judgement on quality metrics and will use a mixture of proxies with the implied caveats contained in the literature. As one proxy, for both primary and secondary schools, around 10 per cent of students each year in low-income countries have to repeat their grade compared with less than 1 per cent for high-income countries (UIS, 2015). While this is a positive indication of the rigour of the exam procedure and duty of care of teachers, it is a negative indication of quality of education overall (Paine, 2014).

Adult literacy rates in low-income countries average 61 per cent compared with near total literacy in high-income countries. Even for those aged 15–24 years, who have benefited from improvements in education over the last three decades, almost one-third are unable to read and write (Banerji et al., 2014; UIS, 2015; selected descriptive statistics from UWEZO datasets for Kenya, Uganda and Tanzania, 2014).

Other contested metrics of quality are associated with teacher training and pupil–teacher ratio. The pupil–teacher ratio in developing countries is three times that of developed countries at primary level and more than double at secondary

level. At least 20 per cent of teachers in low-income countries have no training (UIS, 2015).

The statistics are damning from both absolute and relative perspectives. In developing countries, millions of children are out of school. Rates of attendance and progression for those enrolled in school are low. Those that are in school are performing poorly, and many are leaving school without the ability to read, write and conduct basic mathematics, despite huge investment.

Development's attempts to address the problem

The aid world has long recognized both the transformative power of education in the developing world as well as the scale of the problem it poses.

The money

Development programming takes money and it is clear from the amount that has been spent that the development community have attempted to address the problem but, as in all areas, aid in education often overestimates its relative importance.

Overseas Development Assistance (ODA) for education is significant, but not when compared with the task of educating well over a billion young people. Development Assistance Committee (DAC) countries spend 7.3 per cent of total ODA on education out of a total of around \$100 bn. Developing countries spend an average of 4 per cent of their budgets on education but that still means that ODA spending on education as a proportion of total spending on education in developing countries is less than 4 per cent (OECD, 2015).

To put that into concrete terms, in Ghana – a country high on the list of aid receipts – in 2011 (last year for which complete data is available) government spending on education was \$3.24 bn while aid to education was \$85 m. Aid to education adds 2.5 per cent to the national education budget. There are around 13 million school-aged children in Ghana, meaning aid contributed an additional \$6.5 per child per year. For a class of 30, that means they could afford to pay a teacher an additional \$0.50 per day. This example is typical and, while the contextual nuances have been removed for illustrative purposes, the point is clear; aid money has not been transformational to national education budgets or systems (OECD, 2015).

Exacerbating the relative insignificance of aid money in respect of national budgets is significant evidence to show that there is a degree of fungibility to aid to education – so a 4 per cent additional budget for developing-country governments is not likely to result in an increase in spending of 4 per cent in this area (Feyzioglu et al., 1998; Van de Sijpe, 2012).

Given these constraints, it is perhaps not surprising that the overall impact of aid on education – as with the majority of aid spending over the past half century – has not significantly changed the nature or scale of the problem.

Fundamentally, if all of the money spent by governments on education is not bridging the substantial gap in outcomes described above, then an extra 4 per cent budget is unlikely to change this; nor would an extra 8 per cent, 50 per cent or even 100 per cent, and if it were to result in improved outcomes then this additional commitment of ODA would have to be ongoing.

A cautionary note is necessary here that this is not a statement of *more is better*, exemplified in the case study in this paper. Even within the current forms of donor support to education, there are some which spend less to generate greater leverage by attempting to improve the management of public finances, such as DFID's Education Sector Support Programme in Nigeria (ESSPIN) for example. However, if spending on education and educational outcomes has an assumed correlation – and this is certainly not uncontroverted – a different approach is needed to prevent an exponential and indefinite increase in spending by development actors.

Framework for assessment

Five key dynamics are used here as an analytical framework for both existing and new approaches to intervention presented in this paper.

- *Scale*. How many people will be impacted by the intervention?
- *Depth* of impact. How much will they be affected? In the case of education this is a metric of quality or learning outcomes.
- *Profile*. Who will the beneficiaries be in terms of poverty level, gender, etc.?
- *Longevity* of impact. How long will the impact last beyond the intervention period?
- *Expediency* of impact. How quickly will the impact be achieved?

All of this obviously has to be considered in light of the resources available. Different programmes, different funders, and different interventions prioritize these considerations differently at different times, in different contexts, and to address what are perceived as different problems.

Intervention in education over the last six decades has taken a range of forms. There are, however, two differentiators which allow development interventions to be assessed in accordance with this framework. Firstly, the target for support. This could be direct with government, schools (public or private), and teachers, or within a wider system, with actors that are outside of education but support the operation of the education system. Secondly, the tools of intervention. This might be in terms of tools such as vouchers, subsidies, and grants or it might be in terms of an approach which aims to change behaviour.

Results

The history of development intervention in education has been dominated by considerations of scale and expediency. The Millennium Development Goals (MDGs)' push towards universal primary education (UPE) meant ensuring that

everyone benefited. In that, it can also be said that it accounted for the profile of beneficiaries as all groups were theoretically impacted by the nature of a universal approach. In these goals it was undoubtedly successful as enrolment rates rose significantly across the board.

Modalities in terms of where and how to intervene have varied but the dynamics of scale and expediency have remained largely static. Support has been directed at schools, government departments, and local authorities, while mechanisms have included grants to eliminate school fees, and for school feeding and health programmes (Altinyelken, 2013; King, 2013).

The two dynamics not seriously considered by interventions aimed at UPE were longevity and depth of impact. Both of these dynamics relate to quality. By focusing on universal education a number of factors changed which negatively impact on quality. A drive towards enrolment can increase class sizes, encourage the employment of substandard teachers, and reduce resources for pupils in school. The result of this can be to reduce confidence in the quality of schooling and make parents less likely to send their children to school (Bangay and Latham, 2013). So, while the impact may be widespread in terms of the overall goals of education, it is both shallow and short-lived, with some authors saying that the push towards UPE had a significant negative impact on quality (Deininger, 2003; Nishimura et al., 2008; Pritchett, 2013).

Still, despite huge investments by funders of \$3 bn per year since 2000, UPE is far from being achieved, with around 70 million school-aged children, 9 per cent of the world's total, not attending school (UIS, 2015). It is estimated that to achieve UPE through these means would require up to \$17 bn per year in external support (Birdsall et al., 2005). The value for money in achieving these existing improvements has also been questioned. In light of a systematic review of education interventions that found only small improvements (3–9 per cent) in learning outcomes, and which were smaller still for poorer groups in society, Petrosino et al. (2012: 7) state: 'Policymakers would have to assess whether such outcomes are worth investments, given costs of implementation and how widespread the problem is that the intervention will address'.

This temporal limitation is exacerbated by the predominant modes of delivery which frequently involve one-off periods of budgetary support or grants which end with the project cycle or a change in government; after the initiatives end, the perception of unreliability among potential students is increased, and the impact quickly wanes.

[T]he success of educational initiatives such as FPE [free primary education] is dependent on other needs being satisfied, suggesting a need for an integrated approach to social policy. ... While FPE has increased enrolment in primary schools, poor quality, particularly at the lower level to which the poor have most access, is apparent. Furthermore, many of the economic and social benefits of education are not realized until late primary or even the secondary level (particularly when quality is so low) which very few children reach. Thus, despite considerable achievements in terms of meeting quantitative targets,

consequent deterioration in quality raises questions about the extent to which the needs of the poor are being met. This is of particular concern given that these households invest a considerable proportion of their own resources on education in the hope of bringing themselves out of the poverty trap in the longer term (Kadzamira and Rose, 2003: 514).

In recognition of these issues with sustainability and depth of impact, some funders have switched focus towards quality. Intervention here has again varied in terms of where and how: from direct provision of training to teachers by NGOs and other organizations (CARE International's education work), to supporting education departments to improve the quality of school infrastructure (Bonner et al., 2011), to institutional reforms which aim to improve the governance of school finance (Fullan and Watson, 2000), to revision of curricula to be more appropriate to modern learning. These have, by and large, been very 'tool' or solution driven efforts. This is primarily due to the fact that in designing programmes, funders' current approach does not result in a clear understanding of what causes poor quality or drives improvement in quality in different contexts. Some (contested) proxies in some contexts include the experience and qualifications of teachers and their rate of absenteeism. How this can be addressed in any systematic way across contexts, though, is less clear, with attempts ranging from punitive measures for teachers to incentivizing students to take teaching qualifications.

One response to the contextually specific needs of an education system has been for funders to incentivize governments for delivery on funder objectives such as 'cash-on-delivery' schemes. Empirical data is not yet available on the impact of such delivery methods but, in theory, rewards are given for meeting targets in terms of improvements in exam achievement. Potential problems are created in terms of the metrics for performance – students will be taught to exams, exams will be tailored to make them more passable, etc. – and the potential to establish a cause-effect relationship from the intervention is small (Birdsall et al., 2010; Lockheed, 2008; Renzio and Woods, 2008).

While primarily focused on increasing the depth of impact, the predominant modalities of intervention are likely to result in a positive impact on expediency – instantly linking teacher pay to attendance should result in an instant increase in learning outcomes – but a negative impact on longevity of impact – as the costs of the new pay structure are funded by short-term development programmes subsidizing salaries or the development of new human resources functions.

One interesting initiative undertaken by education programmes in recent years is to provide vouchers to target groups which are redeemable at a range of public and private schools. This indicates recognition of the value of agency in improving learning outcomes. This intervention is primarily focused on the depth of impact and profile of beneficiaries. In the context of an advanced economy, there is strong experimental evidence to suggest improvements in learning outcomes in both public and private schools through voucher provision (Forster, 2011; Greene, 2001; Howell and Peterson, 2006). Others have looked more specifically through a development lens and reinforced the findings on depth and profile in particular (Dixon, 2013;

Wolf et al., 2015; Muralidharan and Sundararaman, 2015). Evidence on the effectiveness of the policy, however, is too scarce and as yet not generalizable (Glewwe and Kremer, 2006).

There are a number of critical reviews of vouchers and privatization which support the conclusions that vouchers may increase impact in respect of profile, depth, and potentially expediency, but scale and longevity of impact, where funded by external donors, are limited (McEwan and Carnoy, 2000; Ladd, 2002; Angrist et al., 2006; Patrinos et al., 2009).

Since voucher use typically allows for enrolment in private schools, there are inevitably questions about the use of public money for private education. It is often difficult to disentangle issues of political philosophy from those of educational effectiveness and economic efficiency (Boissiere, 2004: 24).

Outcomes against this framework reflect funder priorities, and it is clear that, to date, the majority of donors have focused on depth of impact, profile of beneficiaries, and expediency of impact at the expense of longevity and scale of impact. However, there is an additional and significant factor that determines the framework conditions for programming in education:

Political economy. Development programmes strive for one or more of the types of development impact represented in the framework above – but that desire is not without caveats.

Many governments, funders, and indeed much of the research and advocacy in education have, until recently, adopted the ideological position that to support private sector education is wrong. The dogmatic position is that private education is a preference of the wealthy few in the developed world and the view of education as a human right runs contrary to the idea of paying for it (Colclough, 1996, 1997; Bangay and Latham, 2013). More recently the case of private education in Morocco was brought before the 67th Session of UN Committee on the Rights of the Child (Global Initiative for Economic, Social and Cultural Rights, 2013). Pritchett and Viarengo (2015) develop a model which, from the side of the developing country, incorporates the ‘socialization’ aspects of schooling into government policy on private schooling. If public schools are effectively agents of government to whom the state is outsourcing the role of ‘citizen building’, then the state is unwilling to allow this to be contracted out to a third party. This adds further complexity to the political economy of aid to education as, with the influence of the aid effectiveness agenda and increasing power to developing country governments over development spending, there are both donor and recipient reasons for a lack of pragmatism in the approach to the provision of education.

In reality, parents in developing countries are exercising choice in terms of where they send their children, from both rich and poor families alike (Andrabi et al., 2015). According to official statistics, 16 per cent of all primary school enrolments in low-income countries are in private institutions, which increases to 35 per cent for secondary education. In reality, these figures are significantly underestimated due to the informal nature of the sector, with more comprehensive data from

individual studies in some countries showing the proportion of children attending private schools as in excess of 60 per cent (Härmä and Adefisayo, 2013). Further, both of these numbers are growing and the trend within developing countries is clear: a large and increasing proportion of children are attending private schools (Kingdon, 1996; Kitaev, 1999; Tooley and Dixon, 2003; Tooley, 2005).

One source of discontent comes from the false dichotomization of public and private. Private schools charge – often very low – fees for attendance. In most cases, government-run schools do not charge direct fees for service. However, there are a number of other costs – uniforms, textbooks, transport, extra tuition, parent – teacher association (PTA) fees etc. – which can, in some cases, be higher in public schools than in private. Further, inefficiencies within private schools mean that revenue collection is often poor and parents may not actually pay the fees requested (Macpherson et al., 2014). There is some evidence that the total cost of attending private schools is, on average, higher than attending public schools but this is neither universal nor clear cut (Boissiere, 2004).

In a DFID-funded systematic review of the role and impact of private schools in developing countries, Day Ashley et al. (2014) developed 17 testable hypotheses on the subject. Conclusions include that compared to public schools, private schools have a higher standard of teaching, better learning outcomes, and are increasingly reaching into rural areas. While they find that there is a premium placed on private education by parents because of a perception of quality, mobility is low; states have not effectively intervened in or regulated the sector, financial management is poor, and current regulation impacts negatively on private schools. This indicates that while the sector is prominent and growing in developing countries and the fundamentals for a pro-poor market mechanism exist, the markets are not functioning anywhere close to optimally to deliver improved educational outcomes for children from poor families. Tooley and Longfield (2015) have critically analysed the report and suggest that the evidence in favour of private schooling may be more positive than that reported.

Pluralism in the education system is something which has not been recognized by the majority of funder programmes in education. The private sector plays a significant and growing role in education provision for a broad cross-section of society. Outcomes from private sector provision may be better but the facts presented in the first section of this paper reflect that the education system as a whole is still delivering very poor outcomes in terms of attendance and attainment and it is that which aid to education must seek to address.

A market systems development approach to education: theory and practice

The above presents a picture of persistent problems in education despite substantial funder investment. To date, international support to education has been fairly monomaniacal in how it conceives of an education system, with almost all investment directed towards public provision. The question posed here, both in theory and with early evidence from one programme in Nigeria, is whether a market

systems development approach to intervention in education could deliver improved outcomes according to the framework set out above.

Theory

Market systems development (the term is used interchangeably with systems development, systemic approach, and M4P and is codified in DfID and SDC, 2008) is an approach to intervention which prioritizes concerns of sustainability (Taylor, 2014) and scale of impact. The approach, and derivations informed by it (USAID et al., 2013) now account for over £1 bn of programming by a wide range of funders globally. The fundamental difference between this approach and more direct programming approaches is that, however unlikely or distant, it envisages a future without aid in which systems of provision in developing countries continue to prosper (Fine and Hall, 2012). Predicated on a 'do no harm' principle, the approach sees aid as temporary involvement in systems which will continue to function in a way that benefits disadvantaged groups – and, crucially, more and more of them – after the programme has exited.

The origins of systemic approaches lie in enterprise development and there is no doubt that, to date, in conceptualizing a system, emphasis has been placed on private sector involvement. However, as understanding of the approach and experience in its implementation have increased, experimentation has begun with application to new contexts including in merit goods such as water (AKVORSR, 2015) and health (PSP4H, 2015).

The 'targets' and 'tools' of intervention using a systemic approach are unbounded, grounded in analysis, and predicated upon the principles of sustainability and scale. While contextually specific, there are generalizable principles which can be viewed through the lens of the analytical framework above.

Scale of impact. Where traditional approaches might work with individual schools, local authorities or government departments, systemic approaches focus on leverage points. This means that before intervention begins, there is always a view of how, if the intervention is successful, it might lead to impact on a whole sector or system. That is not to say that this doesn't mean working with an individual school, but benefit for that school and its pupils would not be seen as an end in itself. In seeking to change the education system, rather than the quality of a school, or learning outcomes or enrolment rates of a cohort of pupils, a systemic approach to education inherently sees scale of impact as one of its priorities.

Depth of impact. Incentives are central to a systemic approach; ensuring the desired change aligns with the incentives – financial, political, cultural, etc. – and capacities of individuals, groups, and institutions is how the approach sees change as being sustainable. The counterpoint to this, then, is the question of whether these drivers will be sufficient to deliver the desired depth of impact. The theory here is that, with the agency of parents to choose between schools with more and better information, the drive for schools to improve learning outcomes (i.e. increase the potential depth of impact) will be increased. If these mechanisms are functioning well then the

depth of impact has no theoretical limitations. However, in removing one constraint to the improved functioning of the system, others will become apparent of greater or lesser severity.

The advantage of the approach is that intervention can be reactive and multi-faceted to address these constraints based on ongoing analysis. Even so, in many cases there are likely to be limitations to the depth of impact which is feasible. Owing to the willingness and ability of various actors to pay, the availability and cost of various resources, etc., certain outcomes will not be possible. Systemic approaches will also work with government and civil society to pursue outcomes in a sustainable way and so, even in the absence of economic viability, there may be interventions which aim to influence public or third-sector spending to benefit disadvantaged groups. Nevertheless, funders must decide how important increasing the depth of impact is with respect to other dynamics such as increasing the scale of impact. Ultimately, the depth of impact which is possible to achieve through a systemic approach is not delimited but is principally determined by the objectives of the programme and the incentives and capacities that exist within a system to achieve those objectives.

Profile of beneficiaries. One of the criticisms frequently levelled at systemic approaches is their inability to reach certain groups such as the poorest or most marginalized members of society. By adopting a 'facilitative approach' which works through others, the ability of a programme to target certain groups is limited. This has been referred to in the literature as the 'viability void' (Hitchins et al., 2004). That said, programmes exhibit agency in who they work with which allows them to shape outcomes towards certain beneficiaries; the entire approach is predicated on making systems work better *for the poor*. Often, the more marginalized people are within society, the weaker the incentives are for actors within a system to respond to their needs. Therefore, as with the depth of impact, programmes must determine their priorities and recognize the potential trade-off in focusing impact on certain beneficiaries versus other dynamics.

Longevity of impact. This is one of the primary dynamics considered in adopting a systemic approach. Impact in adopting a systemic approach will, if implemented well, not only persist but continue to grow and adapt in the absence of programme involvement. In education, this would mean that the target metrics – whether attainment and enrolment or lower order impacts such as financial performance of schools or teacher attendance – would not only persist within those individuals and institutions that have benefitted during the programme life cycle, but the system by which those impacts were created would also persist and improve over time. So if attainment is increased through improved mobility of pupils to better schools as a result of better information availability on performance, then the information transmission system continues to expand and adapt in the absence of programme involvement. This might be providing information on more aspects of performance, more information service providers entering the system, or government incorporating the information-gathering mechanism into public schools. Along with scale, longevity of impact is the primary shaping dynamic for programmes adopting a systemic approach.

Expediency of impact. Traditional delivery of aid results in fast impact. Assuming a strong correlation between the qualifications of teachers and the learning of their pupils, students will experience improved learning outcomes once an aid programme has employed and trained teachers. Aid programmes can build schools, subsidize uniforms and books, and provide school feeding programmes, all of which should improve outcomes with rapid effect. A systemic approach to intervention, however, is dependent upon behaviour change which is a far lengthier process. Further, the scale of impact is dependent upon escalation by partners and emulation by others rather than replication of programme activities and so the rate at which impact occurs is beyond the direct control of the programme. In following a systemic approach, therefore, expediency is explicitly sacrificed in favour of longevity and scale of impact.

A systemic approach, then, asks the question of what the most appropriate role for each actor is, aligned with their own incentives, in this specific context. As such, it does not directly engage with the dogmatic questions, such as which actor or type of actor *should* perform a function, but rather seeks to understand what change is necessary to see the desired results, and whose incentives and capacities are aligned – or could be aligned through temporary intervention – to permanently deliver that change.

The questions of *where* and *how* to intervene in a system, as determined by these dynamics, then, follow key principles. Where a programme intervenes is determined by the capacities and incentives of the partner to bring about the desired change and where there is a clear theory as to how that change will reach scale. So, if support provided vouchers for poorer children to attend school, how would these vouchers be extended to the whole population and what capacity does the school have to continue the change in the absence of the programme? The first principle, therefore, is that intervention must focus on key points of leverage.

The principles of intervention are also products of incentives and capacities. Incentives are frequently opaque. One way to gauge incentives is to ensure that risk – financial, reputational, political, etc. – is shared by a partner; what an actor is prepared to risk is frequently determined by how much they have to gain. That said, some actors have far less capacity for investment than others, but may have sufficient incentive for it to succeed. Intervention under a systemic approach, therefore, must be facilitative, in that it occurs through partners and programme engagement is shaped by an assessment of what is needed to bring about change in a way that does not distort the incentives for it to be sustained.

Developing Effective Private Education Nigeria (DEEPEN)

Two-thirds of Lagos's children now go to private primary and junior secondary schools. This figure is growing by an estimated 8 per cent per year. Access is not an issue overall with less than 2 per cent of eligible children not enrolled in school. Quality, however, is a major issue in Lagos's education system with

just 39 per cent of candidates earning the minimum five credits in English and mathematics at the end of secondary schooling according to the prevalent educational standard.

In 2013, the UK's Department for International Development (DFID) commissioned a five-year, £18.5 m programme designed to take a more systemic approach to education in Lagos. The programme focuses on private schools (with other, larger DFID programmes focused on public education in Nigeria) and looks specifically at how learning outcomes within them might be improved.

Initial analysis identified a number of key constraints to the development of the private sector education system in Lagos which prevented improvement in learning outcomes. These constraints fall into four categories: rules and standards, information, finance, and pedagogy.

Rules and standards

Rules and standards have traditionally been seen primarily as means of sanction and control, as well as a means of revenue generation through exacting fees and levies on private schools. Rules and standards have hitherto been built on an outmoded and unrealistic process of formal approval that essentially divides private schools into *approved* and *unapproved*, though the latter are increasingly referred to as *yet to be approved*, covering both schools that have started the lengthy and expensive process of formal recognition and those that have not. Approval is largely dependent on meeting high standards of physical infrastructure, including land tenure, beyond both the capacity and needs of the majority of schools. Current estimates suggest that no more than 20 per cent of private schools are approved, with a further 30 per cent at some stage in the process (programme monitoring data, 2014, unpublished). Current standards therefore do not allow schools to differentiate themselves from each other through some realistic and fair form of legitimacy; this is a significant constraint to innovation and forces schools to operate in an uncertain environment. All schools, though more so unapproved schools, are vulnerable to rent-seeking, which imposes further costs on school businesses and ultimately impacts learning outcomes. Banks are hesitant to lend to unapproved schools. Governments and private school associations, as the key actors with the remit to impact on these dynamics, are limited in both their incentives and capacity to address these issues in the current configuration of the system.

Information

Accurate information which is easily accessible is a key contributor to both the agency of parents and the competitiveness and performance of schools. Parents need to know how to determine a school's quality and what proxies they should look for and demand from schools when exam results are not available. Schools need to know how they can attract students and teachers, the issues experienced by other schools in order to associate around issues, and information on support and improvements in practice which they might obtain from other schools and beyond.

Currently information transmission mechanisms are weak and informal. Media, in particular radio, an effective vector for information in many poor communities, has significant outreach but has yet to develop any programming on education issues relevant to low-cost schools and parents of children attending these. The current focus is on the more visible aspects of education: government policy and better-off private schools that serve the middle classes.

Finance

Both absolute and temporary shortages in cash flow affect both supply and demand in schooling. Parents, often engaged in unreliable and informal work, are frequently unbanked and their irregular income results in students dropping into and out of education on a termly, or even monthly basis as school fees cannot be paid. Schools not paying staff results in absenteeism, staff turnover, and an inability to invest in infrastructure or teaching materials. There is an inevitable exponential decay in learning with this variation in attendance. Outreach of savings and lending products into these communities has the potential to smooth income fluctuations but, in Lagos, this is currently limited and expensive. Microfinance is used for working capital for schools owing to the unpredictability of income and poor financial management. Rates for this lending are very high. There is limited use of formal credit. Financial institutions do not have reliable information on the business models and incomes of these informal businesses and are hesitant to lend to 'unapproved' schools.

The most frequently cited problem for private schools, as with many small businesses, is finance and the difficulties in accessing credit. Private schools are generally informal and their lack of formal recognition excludes them from finance available to formal businesses, particularly those with collateral such as formal premises. Banks are understandably wary of lending to unapproved businesses that frequently lack the ability to comply with requirements in the application process. This is in part because the bookkeeping and financial management of schools is poor. In cases where obtaining finance might be possible, schools have not sought to do so due to the risks created by the other constraints. For example, where a school might take a loan to invest in new equipment, the uncertain nature of the market and the degree to which it differentiates in quality – owing to the other constraints identified – make this risk too high.

One of the reasons schools cite finance, and in particular minimal access to term loans, as a major constraint is because they face considerable difficulties with their properties. The majority are on rented land and many are forced to move as a result of predatory landlord behaviour – in particular raising rents after a school has invested in buildings and so forth. Moving location is a major issue for schools, which rely on a highly localized market. In reality, a long-term loan to buy land/buildings is not affordable for many small, low-fee schools in Lagos – the programme is planning to investigate alternative options to address this very real constraint, for instance to help schools negotiate better leases and understand their rights better.

Pedagogy

The level of competency of trained teachers in Nigeria is strikingly low according to recent research (ESSPIN, 2008). In Lagos, analysis revealed that it was both the ineffectiveness of teacher training and the prevalent style of teaching which result in poor learning outcomes. Pedagogy is outmoded and didactic in style. Any apparent difference in learning in private schools is not driven by teacher quality or practice – there are in fact more untrained teachers in private school than in public school and they operate with similar teaching styles – but in the level of accountability within the school which ensures more time is spent by teachers in class. Again there are issues here around information but the low general level of understanding of good practice among teachers, head teachers, and school proprietors, as well as parents, means that information mechanisms alone will not address the issues. Evidence showed that proprietors of low-fee private schools are reluctant to invest in improving the skills and competencies of their teachers for a number of reasons. They often lack the financial resources to do so, and fear that any investment in raising their teachers' competencies would result in them demanding better salaries or finding employment elsewhere. Teachers in low-cost schools are on short-term contracts and are highly mobile. The consequence of losing a good teacher is deemed to be worse than keeping a poor one. Finally, there is little confidence in the supply-side of teacher professional development services and reluctance by schools to purchase their services. Improving the quality of teaching therefore has to consider a number of demand- and supply-side constraints.

These four areas have become the key intervention areas of the programme based on extensive research during the design phase. In addition, a systemic approach prioritizes ongoing analysis during intervention, not simply to monitor and improve the intervention itself but to continue to identify further constraints which may prevent the full impact of the change on the system from being realized.

Early interventions and results

DEEPEN has developed pilot interventions in all four of the focal areas identified during the design phase, with the most mature interventions focused in three areas:

Rules and standards. DEEPEN has helped the Department of Private Schools and Special Programmes – the part of the Lagos Ministry of Education charged with the registration and regulation of private schools – to develop and pilot a new graded schools assessment process as a potential alternative to the current unrealistically aspirational, exclusive, and lengthy private school approval process. After a successful initial trial to test the feasibility of the instrument and process in 100 schools, over 500 schools have participated in the first pilot phase, 87 per cent of which are low fee. This involves schools in a self-assessment exercise using an instrument that captures performance across a range of domains that places them on a five-tier (star) ladder of performance, with a further classification assessment with each tier denoting emerging (low), establishing (mid-point) and enabling (high). Self-assessment is subsequently validated through a process involving a partnership

between government and private school associations. This gives the process greater legitimacy, on the side of both government and schools.

Crucially, government has met part of the running costs from its own budgets, with DEEPEN providing short-term technical support to assist in the development of the assessment instrument and its marketing to schools. This is a sign of the behaviour change which is integral to adopting a systemic approach. The change in the informal norms and attitudes towards private education within government is being reflected in genuine financial commitment. While the change in attitudes and consequently the model of the market system is clear, this has yet to be realized in terms of poverty impacts owing to the embryonic nature of the intervention. However, feedback from schools has been positive. Two risks that were identified at the start have proved unfounded. Firstly, schools would be reluctant to participate for fear of failure and subsequent action by government: the pilot was over-subscribed, and schools in adjacent areas demanded inclusion. Secondly, schools would inflate their performance in the self-assessment: though there is some inevitable variation between self-assessment and validation, with a general tendency towards generous self-assessment, the majority of schools are realistic in their interpretation of the instrument, more so with lower fee schools. The pilot has generated important information on school performance. Performance is closely but not always directly related to fee levels; a number of low-cost schools score higher than those charging higher fees. Nor is approval a guarantee of quality: approved and non-approved schools appear in each of the five tiers. This can only be seen as positive for the potential success of other intervention areas.

There is no monitoring data available yet, but there is good anecdotal evidence that schools have used the learning from the grading process to guide investments and changes in practice in their schools.

As described above, informal rules were also a major impediment to the operation of the system, and a major development in which DEEPEN has played a significant part, through the provision of information and evidence, is the change in attitude towards private schools by Lagos State Government, in particular the Ministry of Education (MoE). The MoE has moved from a position of, at best denial, and at times behaving negatively towards private schools, to one of acceptance and is now starting to look for ways to enable private schools to make use of government materials and systems.

Early monitoring by the programme shows a change in attitude and behaviour by key players resulting in a less vulnerable market system, where change is feasible – where stakeholders are more willing to invest, take risks, and to develop. As such, this transition should provide a basis for achieving the market system changes that DEEPEN is aiming for.

Finance. In finance, early intervention has aimed to address these constraints from the side of both the schools and the parents which address linked but distinct problems.

Firstly, schools have cash flow problems. The major consequence of this is that schools cannot pay salaries and rates of teacher absenteeism increase. Their solution to the problem is to take out microfinance loans which reduces the profitability of the schools and reduces the potential for investment in products and services which

might improve learning outcomes. The primary cause of the cash flow problems in schools is both absolute and temporal default on fees by parents along with poor financial management. The causes of this problem are multiple. Parents of private school children have informal jobs which result in erratic income streams. Parents also have low levels of financial literacy which means they are unable to engage in any form of financial management system and are unaware of the incentives to do so. Finally, the poor state of fee collection by schools means that there is a reduced incentive to pay when the potential exists to be a free-rider.

Secondly, school investment in infrastructure, hardware, salaries, textbooks, and training is suboptimal. One reason behind this is the inability to operate with a longer-term perspective both owing to the informal nature of the sector – schools may be closed down at any point or have to move because their rents have dramatically increased – and because there are no financial products which cater to their needs that might allow them to invest in these areas.

With regard to the first problem, DEEPEN has begun focusing intervention in two areas. Firstly, mobile money schemes are being piloted which will allow parents to contribute instantly to school fees as and when they receive income. This reduces the need for saving and reduces the need for improving financial management at the household level. Secondly, DEEPEN is planning to partner with financial institutions to increase the rates of savings in the informal settings in which private schools operate. This has the potential to increase the ability of parents to pay when the fees are required. These interventions are, to some extent, tradable, and one of the advantages of adopting a systemic approach is that interventions can be experimental and flexible in nature as it is difficult to predict what will be successful in different contexts.

In respect of the second problem, DEEPEN's approach is two-pronged, neither of which work directly in the financial sector. Firstly, DEEPEN will work in the information market to improve the flow of information between schools and financial institutions through research organizations. Secondly, DEEPEN's work on accreditation will give a more sound basis for the development of appropriate financial products.

Pedagogy. DEEPEN has conducted wide-ranging research to understand better the constraints and possible entry points into improving opportunities for schools to improve the teaching and learning process. The project launched a form of challenge fund, targeting existing providers of teacher training services to adapt their products to the largely unserved low-fee end of the market. The approach is to provide limited seed funding to providers to test viable and sustainable approaches that can reach lower fee schools with appropriate, affordable services to raise teacher performance. Research had revealed that there was a surprising number of active players in the market, and a degree of demand from teachers, if not school proprietors, for professional development opportunities. Initial calls for proposals were disappointing, with many providers simply seeing an opportunity for subsidy. DEEPEN altered course, withholding awards and inviting the most promising providers to participate in a series of workshops that examined approaches that were most likely to achieve success. Providers were encourage to strip out excessive costs often associated with traditional workshops, and work within both the budget and time constraints of target schools.

At the end of this process, three providers were finally selected and are now implementing various programmes with groups of schools that they identified in chosen localities. Initial response has been positive, with one provider suddenly finding their presence in the area attracting considerable attention from non-selected schools. Equally significant, one of the providers that was not selected has gone forward independently of DEEPEN with its own programme with a group of low-cost schools.

A second initiative under this work stream is working with one of Nigeria's leading banks to diversify their range of products offered to schools to include a teacher professional development programme. The bank already works with a large number of private schools, offering financial products such as loans and saving schemes and now sees this new area as a market differentiator. DEEPEN is providing the bank with technical support to develop a programme aimed at improving teaching of basic literacy and numeracy. Using seed financing from their corporate social responsibility funds, the bank is expected soon to pilot this initiative with the first group of schools.

Challenges

An underlying challenge which confronts the DEEPEN programme on a daily basis is the continuing ideological resistance towards engaging with private education, particularly within the context of poverty reduction. Thinking and opinion have yet to catch up with the inconvenient reality of Lagos: public education is failing to meet the needs of the population and the private sector has already stepped in. The future human capital of Nigeria's *Centre of Excellence* depends far more on private than public education.

Within the area of rules and standards, a number of challenges threaten the effectiveness of the reforms to the regulatory environment. Transforming the process of school recognition from one that has hitherto been essentially a revenue generating exercise (through a structure of formal fees and levies as well as opportunity for rent-seeking) to one that incentivizes schools to participate and improve through minimal and shared costs, will take time.

Ultimately, success depends on information being freely and widely available, enabling market forces of parental understanding and demand as well as school responsiveness to catalyse school improvement. A final challenge is how to bring the all-important metric of learner achievement into the mix, given the current absence of any universal and reliable system of measuring primary level learning outcomes.

However, having received some degree of buy-in from influential stakeholders, this programme represents, perhaps, a unique opportunity to demonstrate how the utilization of a systemic approach to intervention in education can result in pro-poor change within a pluralistic model of education provision.

There is also a more general risk in the adoption of a systemic approach that the diagnosis of constraints to a system was inaccurate, and the levers designed to improve the functioning of the system were either not the right levers or were not pulled with the right force to deliver sustainable change. Indeed, different variants of the instruments being used have been applied in other contexts with varying degrees of success (Glewwe and Kremer 2006; Lockheed and Hanushek 1988). However, these risks pale in comparison to the risk of continuing to use the same acontextual and blunt

instruments which have consistently failed to deliver against the metrics of sustainable, large-scale change. The comparison is analogous to a doctor with several treatments and a diagnostic toolkit at their disposal and a doctor who can only use penicillin. There is a chance that both will not be able to treat a patient effectively, but an informed diagnosis with a wider range of potential treatments is far more likely to succeed.

Conclusions

This paper has demonstrated how conventional approaches to external intervention in education have been largely unsuccessful in catalysing sustainable change, utilizing a framework for the assessment of external intervention according to five key metrics. The paper applied a theoretical treatment to different approaches to education against this framework to look for reasons why success has been limited.

The paper then presented a theoretical treatment of how an alternative approach, cognizant of the realities being faced in developing countries' education systems, might be utilized to stimulate a sustainable and large-scale improvement in learning outcomes. Finally, the paper presented the case of DEEPEN in Lagos where a systemic approach has been adopted. While results are small scale and based on only the first year of programme operation, it can be seen how a systemic approach differs in terms of the ownership of change and the post-intervention impact. This impact, in areas where data is available, is good but has yet to be reflected in changes to learning outcomes which will only come once parents begin to utilize this formalization of grading to exercise choice and drive improvement.

The conventional, ideologically driven approach has limited the impact of intervention in education according to all five of the metrics outlined in the framework presented in this paper in different ways. A systemic approach to education, then, relies on a reprioritization of these metrics. Expediency, and perhaps some elements of profile of beneficiaries and depth of impact, will have to be sacrificed in favour of considerations of scale and longevity of impact. What is important for development is to be clear and transparent about which of these metrics are being prioritized and what the implications of this are for educational outcomes in developing countries in the long term.

References

- Akvorsr (2015) 'Northern Uganda Wash Alliance Project' [online] <<http://rsr.akvo.org/project/451/>> [accessed 11 March 2016].
- Altinyelken, H.K. (2013) 'Teachers' principled resistance to curriculum change: a compelling case from Turkey', in A. Verger, H.K. Altinyelken, and M. de Koning (eds), *Global Managerial Education Reforms and Teachers*, pp. 109–26, Brussels: Education International Research Institute.
- Andrabi, T., Das, J. and Khwaja, A.Z. (2015) *Delivering Education: A Pragmatic Framework for Improving Education in Low-Income Countries*, Policy Research working paper no. WPS 7277, Washington, DC: World Bank Group.
- Angrist, J., Bettinger, E. and Kremer, M. (2006) 'Long-term educational consequences of secondary school vouchers: evidence from administrative records in Colombia', *The American Economic Review* 96(3): 847–62.

- Baker, L. and Bernstein, H. (2012) *The Impact of School Buildings on Student Health and Performance: A Call for Research*, New York: McGraw-Hill Research Foundation.
- Banerji, R., Bhattacharjea, S. and Wadhwa, W. (2014) 'The Annual Status of Education Report (ASER)', *Research in Comparative and International Education* 8: 387–96.
- Bangay, C. and Latham, M. (2013) 'Are we asking the right questions? Moving beyond the state vs. non-state providers debate: reflections and a case study from India', *International Journal of Educational Development* 33: 244–52.
- Birdsall, N., Levine, R. and Ibrahim, A. (2005) 'Towards universal primary education: investments, incentives, and institutions', *European Journal of Education* 40: 337–49.
- Birdsall, N., Savedoff, W.D., Mahgoub, A. and Vyborny, K. (2010) *Cash On Delivery: A New Approach to Foreign Aid*, Washington, DC: CGD Books.
- Boissiere, M. (2004) *Determinants of Primary Education Outcomes in Developing Countries*, Washington, DC: World Bank, Independent Evaluation Group (IEG).
- Bonner, R., Das, P., Kalra, R., Leathes, B. and Wakeham, N. (2011) *Delivering Cost Effective and Sustainable School Infrastructure*, London: TI-UP Resource Centre.
- Colclough, C. (1996) 'Education and the market: which parts of the neoliberal solution are correct?' *World Development* 24: 589–610.
- Colclough, C. (1997) *Marketizing Education and Health in Developing Countries: Miracle or Mirage?* Oxford, UK: Oxford University Press.
- Day Ashley, L., McLoughlin, C., Aslam, M., Engel, J., Wales, J. and Rawal, S. (2014) *The Role and Impact of Private Schools in Developing Countries: A Rigorous Review of the Evidence*, Final report, Education Rigorous Literature Review (EPLI-Centre reference No 2206), London: Department for International Development.
- Deining, K. (2003) 'Does cost of schooling affect enrolment by the poor? Universal primary education in Uganda', *Economics of Education Review* 22: 291–305.
- Dixon, P. (2013) *International Aid and Private Schools for the Poor: Smiles, Miracles and Markets*, London: Edward Elgar Publishing.
- DFID and SDC (eds) (2008) *The Operational Guide for the Making Markets Work for the Poor (M4P) Approach*, Stockholm: SDC and London: DFID.
- ESSPIN (2008) *An Assessment of the Development Needs of Teachers in Nigeria: Kwara State Case Study*, Lagos: ESSPIN.
- Feyzioglu, T., Swaroop, V. and Zhu, M. (1998) 'A panel data analysis of the fungibility of foreign aid', *The World Bank Economic Review* 12: 29–58.
- Fine, B. and Hall, D. (2012) 'Terrains of neoliberalism: constraints and opportunities for alternative models of service delivery', in D. McDonald and G. Ruiters (eds.), *Alternatives to Privatization: Public Options for Essential Services in the Global South*, pp. 45–70, London: Routledge; Pretoria: HSRC.
- Forster, G. (2011) *A Win-Win Solution: The Empirical Evidence on School Choice*, Indianapolis: The Friedman Foundation for Education Choice.
- Fullan, M. and Watson, N. (2000) 'School-based management: reconceptualizing to improve learning outcomes', *School Effectiveness and School Improvement* 11: 453–73.
- Glewwe, P. and Kremer, M. (2006) 'Schools, teachers, and education outcomes in developing countries', in E. Hanushek (ed.), *Handbook of the Economics of Education* 2, pp. 945–1017, London: Elsevier.

Global Initiative for Economic, Social and Cultural Rights (2013) 'Parallel Report submitted by the Coalition Marocaine pour l'Éducation pour Tous, the Global Initiative for Economic, Social and Cultural Rights, and Sylvain Aubry to the Pre-sessional Working Group of the Committee on the Rights of the Child on the occasion of the consideration of the List of Issues related to the Third and Fourth Periodic Reports of Morocco during the Committee's 67th Session' [pdf] <http://tbinternet.ohchr.org/Treaties/CRC/Shared%20Documents/MAR/INT_CRC_NGO_MAR_16428_E.pdf> [accessed 13 March 2016].

Greene, J. (2001) 'Vouchers in Charlotte', *Education Matters* 1(2): 55–60.

Härmä, J. and Adefisayo, F. (2013) 'Scaling up: the challenges facing low-fee private schools in the slums of Lagos, Nigeria', in P. Srivastava (ed.), *Low-Fee Private Schooling: Aggravating Equity or Mediating Disadvantage?* pp. 129–51, Oxford: Symposium Books.

Hitchins, R., Elliott, D. and Gibson, A. (2004) 'Making business service markets work for the rural poor: a review of experience', *Small Enterprise Development* 16: 10–23.

Howell W.G. and Peterson, P.E. (2003) *The Education Gap: Vouchers and Urban Schools*, Washington, DC: Brookings Institution Press.

Kadzamira, E. and Rose, P. (2003) 'Can free primary education meet the needs of the poor? Evidence from Malawi', *International Journal of Educational Development* 23: 501–16.

King, K. (2013) 'Education and development in the post-2015 landscapes', *Norrag News* 49.

Kingdon, G.G. (1996) 'Private schooling in India: size, nature, and equity-effects', *Economic and Political Weekly* 3306–14.

Kitaev, I. (1999) *Private Education in Sub-Saharan Africa: A Re-Examination of Theories and Concepts Related to Its Development and Finance. Mechanisms and Strategies of Educational Finance*, Paris: IIEP/UNESCO.

Kolb, D.A. (2014) *Experiential Learning: Experience as the Source of Learning and Development*, Upper Saddle River, NJ: Pearson Education.

Ladd, H.F. (2002) 'School vouchers: a critical view', *Journal of Economic Perspectives* 16(4): 3–24.

Ladd, H. and Loeb, S. (2013) 'The challenges of measuring school quality', *Education, Justice, and Democracy* 19: 22–55.

Lockheed, M. (2008) *Measuring Progress with Tests of Learning: Pros and Cons for 'Cash on Delivery Aid' in Education*, Working Paper 147, Washington, DC: Center for Global Development.

Lockheed, M. and Hanushek, E. (1988) 'Improving educational efficiency in developing countries: what do we know?' *Compare* 18(1): 21–38.

Mcewan, P.J. and Carnoy, M. (2000) 'The effectiveness and efficiency of private schools in Chile's voucher system', *Educational Evaluation and Policy Analysis* 22: 213–39.

Macpherson, I., Robertson, S. and Walford, G. (2014) *Education, Privatisation and Social Justice: Case Studies from Africa, South Asia and South East Asia*, Oxford: Symposium Books Ltd.

Muralidharan, K. and Sundararaman, V. (2015) 'The aggregate effect of school choice: evidence from a two-stage experiment in India', *Quarterly Journal of Economics* 130(3): 1011–66 <<http://dx.doi.org/10.1093/qje/qjv013>>.

Nishimura, M., Yamano, T. and Sasaoka, Y. (2008) 'Impacts of the universal primary education policy on educational attainment and private costs in rural Uganda', *International Journal of Educational Development* 28: 161–75.

OECD (2015) *Query Wizard for International Development Statistics (QWIDS)*, Paris: OECD.

- Paine, N. (2014) *The Learning Challenge: Dealing with Technology, Innovation and Change in Learning and Development*, London: Kogan Page Publishers.
- Patrinos, H.A., Osorio, F.B. and Guáqueta, J. (2009) *The Role and Impact of Public-Private Partnerships in Education*, Washington, DC: World Bank Publications.
- Petrosino, A., Morgan, C., Fronius, T., Tanner-Smith, E. and Boruch, R. (2012) 'Interventions in developing nations for improving primary and secondary school enrollment of children: a systematic review', *Campbell Systematic Reviews* 8.
- Pritchett, L. (2013) *The Rebirth of Education: Schooling Ain't Learning*, Washington, DC: CGD Books.
- Pritchett, L. and Viarengo, M. (2015) 'The state, socialization and private schooling: when will governments support alternative producers?' *Journal of Development Studies* 51(7): 784–807.
- PSP4H (2015) 'The M4P in Health Portal' [online], Nairobi, Kenya: Private Sector Innovation Programme for Health <www.psp4h.com/> [accessed 13 April 2015].
- De Renzio, P. and Woods, N. (2008) *The Trouble with Cash on Delivery Aid: A note on its potential effects on recipient country institutions: A note prepared for CGD Initiative on 'Cash on Delivery Aid'* [pdf], Washington, DC: CGD <www.cgdev.org/doc/Cash%20on%20Delivery%20AID/Derenzio%20Woods.pdf> [accessed 15 March 2016].
- Schiefelbein, E. and McGinn, N.F. (2013) 'Interim report on survey of teaching practices in developing countries', *Electronic Journal of Educational Research, Assessment & Evaluation* 19(1): 1–13.
- Shepherd, D. (2015) *Learn to Teach, Teach to Learn: A Within-Pupil Across-Subject Approach to Estimating the Impact of Teacher Subject Knowledge on South African Grade 6 Performance*, Stellenbosch Economic Working Papers 1(15), University of Stellenbosch.
- Taylor, B. (2014) 'Who wants to give forever? Giving meaning to sustainability in development', *Journal of International Development* 26: 1181–96.
- Tooley, J. (2005) *The Global Education Industry*, IEA Hobart Paper, London: IEA.
- Tooley, J. and Dixon, P. (2003) *Private Schools for the Poor: A Case Study from India*, Reading, UK: Centre for British Teachers.
- Tooley, J. and Longfield, D. (2015) *The Role and Impact of Private Schools in Developing Countries: A Response to the DFID-Commissioned 'Rigorous Literature Review'*, London: Pearson.
- UNESCO Institute for Statistics (UIS) (2015) 'UIS.Stat' [online] <<http://data.uis.unesco.org/>> [accessed 15 March 2016].
- USAID, SDC, and DFID (2013) 'USAID, DFID, and SDC to explore collaboration on inclusive markets' [online], Microlinks <<https://www.microlinks.org/learning-marketplace/news/usaiddfid-and-sdc-explore-collaboration-inclusive-markets>> [accessed 11 March 2016].
- Van De Sijpe, N. (2012) 'Is foreign aid fungible? Evidence from the education and health sectors', *The World Bank Economic Review* 27(2): 320–56.
- Wolf, P., Egalite, A.J. and Dixon, P. (2015) 'Private school choice in developing countries: experimental results from Delhi, India', in P. Dixon, S. Humble, and C. Counihan (eds), *Handbook of International Development and Education*, Cheltenham, UK: Edward Elgar Publishing.