Investing in learning outcomes: Models for scaling and sustaining After School Programmes

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Abstract

South Africa's learning crisis was evident before the COVID-19 pandemic, with the system delivering unacceptably poor learning outcomes in reading-for-meaning (Howie *et al.,* 2017) and maths and science (Reddy *et al.,* 2020); high rates of repetition and dropout (Van der Berg *et al.,* 2019); and deep inequalities (Spaull, 2019). "Disasters amplify existing structural inequalities in society and worsen inequalities through an unequal recovery process" (Reddy *et al.,* 2020). In South Africa, most children's lives are unconducive to learning. Now, with socio-economic challenges exacerbated by the pandemic, as well as the knock-on impacts of school closures (Shepherd *et al.,* 2021; Van der Berg *et al.,* 2020; Hoadley, 2020), it is unrealistic to expect that gaps will be filled, and outcomes improved, through schooling alone (Olivier, 2021).

After School Programmes[1] (ASPs) offer a compelling route to redress education inequality, and promote social justice and sustainable development. ASPs fill the gaps between the kinds of support middle- and working-class children receive, and supplement formal schooling with academic and psycho-social support; safe places to learn and play; enrichment opportunities and meals (Youth and After School Programmes Office, 2020). ASPs enable learners in low- and no-fee schools (quintile 1 to 3 schools) to improve their academic results (Böhmer *et al.*, 2014; McLean *et al.*, 2016; Spaull *et al.*, 2012), matriculate, and go on to tertiary education and employment (Ikapadata, 2019). This is key for addressing inequality, where just 26% of the total university population comprises alumni from these schools (PC4IR, 2020).

Now that all players across the education ecosystem are compelled to counteract the impact of COVID-19 on learning, learners and schools; opportunities abound for collaboration and reconfiguring the allocation of resources and support. Key to achieving this is coordinated education management information systems (EMIS) and monitoring, evaluation and learning (MEL). There have been significant strides in the ASP sector's MEL in recent years, and capacity to track the delivery of both learning and employment outcomes is improving (Youth and After School Programme Office, 2020a). Gradually, the sector is building the systems required to measure outcomes, and is becoming increasingly primed for scale through social impact investment.

This paper explores innovative finance models with the potential to sustain and scale ASPs delivering learning outcomes for learners attending low- and no-fee schools. An integrative literature review methodology is employed, exploring existing outcomes-based financing models for education in low-income and crisis contexts. The paper provides an overview of the international literature, and highlights potential approaches for an outcomes-based financing model that leverages the ASP sector to improve learning outcomes in South Africa.

There is a long way to go before every learner attending a low- or no-fee school can enroll in an ASP. However, the opportunity to exponentially increase delivery of key learning outcomes in a school, district or province is well within reach. This presents an extremely compelling case for impact investment, and with concerted cross-sector collaboration between implementers, funders and researchers, ASPs could be leveraged not only to fill learning gaps deepened by school closures, but to reconfigure the education ecosystem's ability to deliver learning outcomes going forward.

[1] The "After School Sector" comprises programmes run largely by NGOs (often in partnership with schools, tertiary institutions, government departments, foundations and/or companies), serving learners in quintile 1 to 3 schools, and/or their parents, teachers and principals.

Introduction

The ASP sector presents a significant opportunity for redressing education inequality, and delivering learning outcomes in quintile 1 to 3 schools, attended by 70% of learners in the schooling system. Only 40% of these learners are at the right age for their grade level, which means that 60% are struggling to keep up. One in every five grade 10 learners across the system repeats (Van der Berg *et al.,* 2019), but without additional targeted support, grade repetition largely fails to enable learners to reach grade level. ASPs serving learners in quintile 1 to 3 schools provide supplementary support in a range of areas – from academic, to psycho-social support, to providing food – to enable learners to become literate and numerate, stay in school, pass matric and enroll in a post-school opportunity. ASPs thus play an important role in enabling the education ecosystem to achieve the National Development Plan (NDP) goals.

Free from a curriculum coverage mandate, ASPs can meet children where they are. They offer a wide range of programmes targeting context-specific needs, and appeal to a range of learner interests. With their focus on building and sustaining positive relationships between caring adults and children, ASPs have the potential to promote social and emotional learning[2] (SEL). Many have leveraged ICT for scale[3], and exciting innovations have been developed to reach learners at home under lockdown (YASPO, 2020). Academic ASPs such as OLICO Maths and IkamvaYouth use an "accelerated learning[4]" approach, whereby learners are provided with support to overcome gaps in foundational knowledge in order to understand their current grade level school work. This has led to positive outcomes in conflict-ridden contexts (Bilagher *et al.,* 2020; Randall *et al.,* 2020), and is well-suited to the current pandemic-exacerbated situation where there is insufficient time for a pure "remediation" approach.

The sector leverages its diversity of offerings in working towards shared goals, including preventing dropout and keeping children engaged in learning. ASPs providing academic support work towards enabling children to meet grade-level, and those targeting secondary school learners tend to focus on reaching and passing matric (some with a subject focus, e.g. Maths and/or Science). Others focus on building skills specifically for the fourth industrial revolution (4IR), e.g. coding. The recently published ASP Investment Case (Olivier, 2021) provides detailed analysis of the education system's significant investment per learning outcome, and shows that investments into ASPs enhance the impact of this public expenditure by increasing the likelihood that children will achieve good learning outcomes.

Outside of but connected to formal education, the ASP sector has freedom to innovate in a number of areas, from delivery models and mechanisms, to resource mobilisation. In their case for introducing innovative finance mechanisms to the education sector during the COVID-19 crisis and beyond, De Witt *et al.* (2020:3) recommend leveraging NGOs and social enterprises "as incubators for the public sector system and not just as delivery partners" in developing and testing innovative responses to the crisis. This Working Paper builds on previous work highlighting the potential of ASPs to deliver learning outcomes (Olivier, 2021), and explores potential outcomes-based financing models to sustain and scale this delivery.

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[2] SEL refers to the "process of acquiring core competencies to recognise and manage emotions, set and achieve goals, appreciate the perspectives of others, establish and maintain positive relationships, make responsible decisions, and handle interpersonal situations constructively" (INEE, 2020).

[3] For example: The Click Foundation is bringing its e-learning literacy and numeracy programmes to over 150 000 learners (https://clickfoundation.co.za/impact-report/). OLICO Maths provides WhatsApp tutoring, and access to online resources (https://learn.olico.org/), and DGMT's reading-for-meaning programme leverages mobile technology to implement Teaching at the Right Level (TaRL) model (https://zerodropout.co.za/learn-how-to-assess-your-childs-reading-skills/), while Fundza has reached millions of young readers with its mobi site (http://www.fundza.co.za/).

[4] Accelerated Education Programmes (AEPs) are flexible, age-appropriate and run in an accelerated time frame. The goal is to provide learners with a basic education that is certified and equivalent to the formal schooling system (USAID Education in Crisis and Conflict Network, 2018).

Methodology

An integrative literature review methodology is employed, exploring existing outcomes-based financing models for education in low-income and crisis contexts. The current ASP funding landscape is mapped, and additional funding sources and innovative mechanisms are suggested, with a view to significantly increase the flows of funds to enable programmes delivering learning outcomes to reach more learners.

Findings

The paper provides an overview of the international and local literature, and highlights potential outcomes-based financing models to sustain and scale ASPs improving learning outcomes in South Africa.

Basic needs

COVID-19 has most harshly impacted the vulnerable, and led to increased hunger, depression and unemployment. With basic needs wanting, families are under immense pressure and less likely to be able to provide support for homework and learning in the hours after school. ASPs not only provide safe and supportive learning spaces and resources; many also provide meals, clothes and shoes, and some address specific needs such as psycho-social support, or access to eye exams and glasses. The last year showed that State provision of targeted and urgent relief is difficult to achieve at scale, and the role of civil society in carrying out this important work was paramount.

Children who are hungry, afraid, stressed or cold cannot learn. 72% of households with children had run out of money to buy food the month prior to being interviewed in at least one of the four waves of NIDS-CRAM (the last survey was administered in February 2021 by Shepherd *et al.*), and swift action is required to prevent stunting[5] - a sign of chronic malnutrition from which 27% of children under five years old were suffering *before* lockdown (Ilifa Labantwana, 2019). Due to a number of factors including school closures and rotational timetables, far fewer learners are currently receiving school meals than before the pandemic.

With inequality fast-increasing, the provision of additional support to the most vulnerable is vital. ASPs and community-based organisations (CBOs) are well-positioned to provide for the basic needs of children and families. Many demonstrated their agility and responsiveness in response to the pandemic early on, and with more resources the sector can play an important role in promoting children's resilience and development through these difficult times.

Educational outcomes

Target 4.1 of the Sustainable Development Goals (SDGs)[6] aims to "ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes" by 2030. Indicator 4.1.1 focuses on ensuring that children and young people achieve "minimum proficiency level in (i) reading and (ii) mathematics", with basic literacy and numeracy measured through standardised learning assessments.

South Africa's poor and unequal learning outcomes are well-documented in the literature. From reading-for-meaning scores, to maths and science performance, grade repetition and dropout, and low matric achievement rates, it is evident that the system is failing to nurture and support the development and talents of most children. Appendix A (Olivier, 2021) outlines the odds that learners in the lower quintiles were up against *before* losing significant learning time due to COVID-19. With most learners' foundational competencies below grade level, they are unable to receive grade level instruction, and hence their pre-crisis educational experience could be described as 'enrolment without learning' (McAleavy, 2020; Bold *et*

[5] "Stunting is the impaired growth and development that children experience from poor nutrition, repeated infection, and inadequate psycho-social stimulation." (World Health Organisation, 2021) https://www.who.int/news/item/19-11-2015-stunting-in-a-nutshell

[6] https://sdg-tracker.org/

al., 2017). Before the onset of COVID-19, less than a third of children in quintile 1 to 3 schools were making it out of the schooling system with a matric certificate; almost half dropped out before grade 12, usually after repeating a few grades (with repetition costing the system over R20 billion per annum). Just eight percent of these learners matriculated with a Bachelor pass enabling them to apply for university. 7% of these achieved Maths passes over 50%, and 1% achieved over 65%.

There is already some indication of the extent of learning losses due to school closures, thanks to fast-response research from NIDS-CRAM. Shepherd *et al.* (2021:2) found that "overall learning loss for grade 4 learners was 76% in Home Language (HL) and 48% in English as a First Additional Language (EFAL)". Rotational attendance hits the lowest quintiles hardest – 73% of quintile 1 and 2 classes have over 45 learners (Köhler, 2020) – and as a result, the already-existing gaps and backlogs are fast deepening. While middle-class children learned online during lockdown and are mostly back at school when they are open, poor children are spending a lot more time out of school. The significant loss of learning is very much still underway, and the extent is yet to be determined. We cannot wait; reclaiming lost learning time needs to be a national priority.

Employment outcomes

South Africa's greatest opportunity and greatest resource is her people. The 4th Industrial Revolution gives us a rallying point of urgency and opportunity to redesign, streamline and align the education system through a coordinated, robust, multi-stakeholder process. The purpose of the next version of our skills ecosystem will be to leap-frog our youth into productive work and re-skill current workers for job retention and ongoing productive work in the economy (PC4IR, 2020).

Reddy *et al*. (2020a), in their note on the impact of school closures, write that "in the recovery phase, schools should arrange for additional lessons using the expertise of ex-teachers and university students from the community." It is in this work that ASPs have experience; in recruiting, training and coordinating tutors and after-school practitioners to deliver educational services beyond the classroom.

The ASP sector addresses the youth unemployment and unemployability crises in multiple ways: (i) Employing unemployed youth as practitioners working directly with learners, and within implementing organisations as staff; (ii) Engaging unemployed youth and students as volunteers, providing stipends, training and work experience, and (iii) Addressing the unemployability crisis by enabling more learners to gain skills and reach academic milestones that set them on the path towards employment.

Education funding

In South Africa, education is predominantly funded with state resources. While the allocation to education is significant (over 6% of GDP), over 80% goes to personnel (Spaull, 2020); hence together with the large infrastructure backlogs, little is left to address quality and learning challenges. In response to COVID-19, the national DBE budget was revised down by more than R2 billion for FY2020 (UNESCO, 2020). Provincial grants of R13.8 billion were suspended, of which the education infrastructure grant was hardest hit, to the tune of R6.6 billion" (UNICEF, 2020).

However, basic and higher education were given an additional R12.5 billion "to fund COVID-19-related spending and catch-up programmes in the basic and higher education and training sectors" (UNICEF, 2020), and provincial departments have been allocated over R8 billion for "educational enrichment services," through the Care and Support in Schools[7] programme.

[7] https://www.education.gov.za/Programmes/HealthPromotion/CSTL.aspx
https://vulekamali.gov.za/2021-22/national/departments/basic-education/

Foundations and corporates – both national and international – make significant investments into education in South Africa totalling over R5 billion (Trialogue, 2020)[8]. Grants from foundations and CSI funds are typically made directly to implementers. Many of these investments are once-off, annual amounts, and at the most cover three to five years of direct project costs. While there have been some shifts with philanthropic spend going towards outcomes rather than outputs, this approach to education funding in South Africa is relatively nascent.

Funding for Information and Communications Technology

To get learning happening in the poorest homes, community centres, sports grounds, libraries and churches, programme implementers need connected technology. From accessing learning resources, to tracking attendance and conducting assessments, ASP practitioners need devices and reliable internet access.

In his recently published book, Harrison (2020) describes DGMT's stoic efforts and frustrations spanning three years, trying to get public benefit organisation (PBO) content zero-rated[9] across Internet Services Providers (ISPs). He also describes how, in response to lockdown and disaster regulations, the Department of Communications and Digital Technologies (DCDT) issued a directive requiring network operators to zero-rate health and educational content approved by a government project management office. They unfortunately adopted a problematic approach in prioritising the zero-rating of schools over PBOs, and essentially deepened the divide, as most of the schools on the list with Uniform Resource Locators (URLs) are in quintile 5. It is from PBOs, rather than their quintile 1 to 3 schools, that learners can access online learning. Following relentless pressure (and in the case of MTN, a high court submission), 39 PBO URLs are now zero-rated, and learners can now access literacy, numeracy and other learning content without incurring data costs.

Zero-rated online content will be a game-changer when the prices of smart devices drop and ownership is ubiquitous. Unfortunately, as most learners in the lower quintiles do not have access to devices, the digital divide continues to widen. ASPs have shown remarkable innovation in closing this gap during lockdown, by distributing printed resources, re-allocating transport budget allocations to provide devices and data, and creating shows for television and radio. With more resources, these innovations can be replicated and scaled. Simply building computer labs or providing devices is usually a colossal waste of money; however, when smart, sustained programming is provided along with technology, impressive gains can be made (World Bank *et al.,* 2020).

Who funds After School?

The ASP sector is mainly funded through philanthropy and corporate social investment (CSI). More than half of South Africa's CSI spend in 2020 went towards Education (Trialogue, 2020), but it is unclear how much of this went to ASPs. Figure 1 below illustrates the current flows of funding in the ASP sector.

ASPs serving learners in quintiles 1 to 3 are implemented by NGOs, social enterprises, schools, government programmes and universities. While a small proportion of these charge fees to parents, the far majority are reliant on grant funding – from family foundations and companies, both international and local; through CSI and Broad-Based Black Economic Empowerment (BBBEE). In recent years, intermediaries like The Learning Trust have contributed to sector capacity building, by offering technical assistance, research and training.

[8] "Non-profit organisations were the main recipients of CSI funding in 2020. Over 90% of companies directed an average 54% of their spend to NPOs. The next most common recipients were government institutions such as universities, schools, clinics and hospitals. These were funded by 69% of corporates and received on average 25% of companies' CSI spend".rni

[9] "Zero-rating of data means that the mobile user can access free digital content, with the costs borne by the network operator or a third party. In this case, the costs to the network operators could be reimbursed from the tiny sliver of net profit after tax that they have to contribute to a universal service and access fund" (Harrison, 2020).

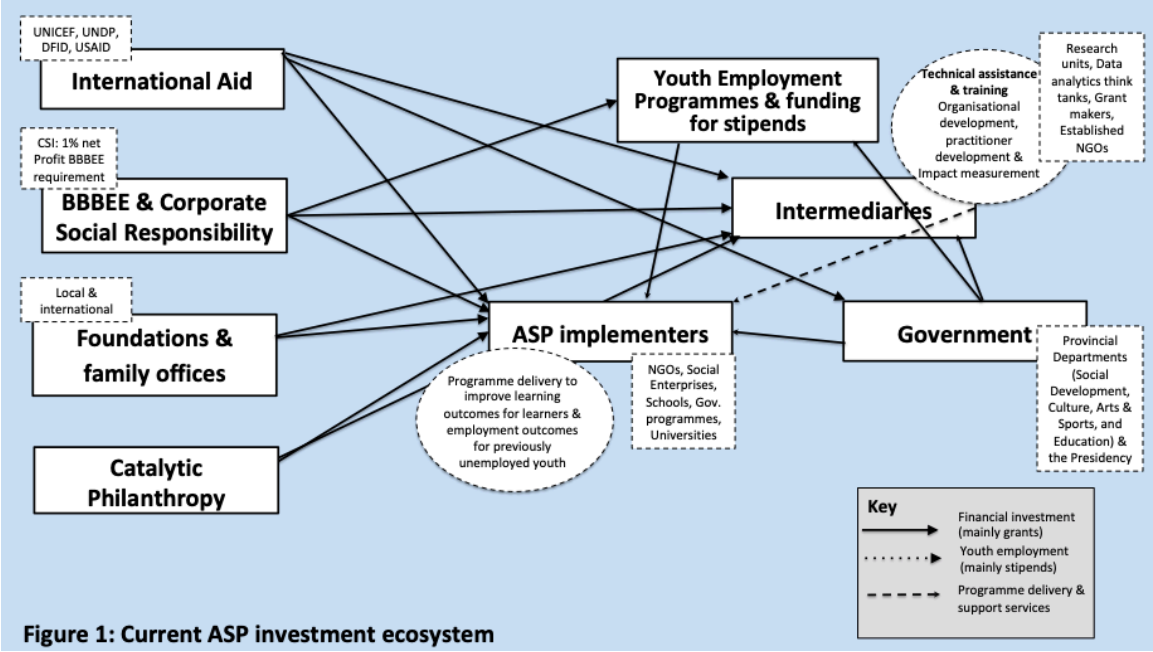

Figure 1: Current ASP investment ecosystem

Alternative funding in education

Within education, a space exists for innovative financing to increase the efficiency of the value chain by pooling, channeling, and targeting resources that maximize impact on education outcomes. Using innovative finance to target initiatives with a comparative advantage can complement local governmental resources rather than displace them (OSF, 2013).

While additional sources of funding for education need to be identified, "increased funding does not automatically guarantee performance; countries with similar levels of income that spend more on education do not necessarily score higher on international assessments" (OSF, 2013). Most state funding goes to personnel, and most non-state funding is tied to project activities, or outputs, (although a few funders have begun including impact outcomes in funding contracts, and tying payment to results[10]). There is a need for innovative financing mechanisms to strategically augment public expenditure and improve learner outcomes on a national scale.

"Innovative financing mechanisms can be characterised as (1) innovation in sources – fundraising of incremental capital either from new funders or existing funders in new ways, or leveraging private capital, and mobilising public resources; and (2) innovation in uses – changing the way in which existing capital is deployed or spent, and introducing financial solutions to increase its efficiency, effectiveness and overall impact within both the public and private sector" (CABRI, 2011).

Factors influencing the application of innovative finance mechanisms in education include value chain complexity; the long time period between investments and results (financial and social impact); the strong interdependency of all parts of a complex system; the predominant role of the public sector; complexity in performance metrics and low levels of research and development (R&D) (OSF, 2013).

[10] Most funding goes towards programme activities, as per budget line items, e.g. "Tutor training". Some of this funding is released in tranches following delivery of outputs and associated financial reports, e.g. "X tutors trained over X sessions". Funding tied to outcomes happens after-the-fact and is contingent upon delivery of particular results, e.g. "Above 80% matric pass for enrolled learners".

Innovative finance approaches

Education requires long-term, coherent, and focused system-wide attention to achieve improvements. The link between education and sustainability is a good illustration of the difficulty in measuring the true social return of investment in education, as the values inculcated by a good educational system manifest mainly in adulthood, and especially when people are old enough to make decisions as parents, voters, policymakers, investors, entrepreneurs, etc. (OSF, 2013).

There is a plethora of innovative finance approaches, and an even greater number of terms for these approaches. The common element across all of them is a focus on results (outputs and/or outcomes) to unlock new pathways and/or sources of investment, rather than traditional financing which generally focuses on the cost of inputs. The distinguishing feature between the approaches is *who pays* for the outcomes, *who carries the risk* of not achieving outcomes, and whether or not there are associated (in addition to social) *financial returns.*

Results-based financing (RBF)

RBF, also known as Pay for Success (PfS), Pay for Results (PfR), Performance-based financing, or Cash on Delivery (COD), refers to financing mechanisms "wherein funders pay upon completion and verification of pre-identified activity outcomes, rather than for activity inputs" (Marketlinks, 2019). This approach has gained popularity in the international aid development community "because of its potential to make education spend more effective and efficient. RBF refers to any "intervention that provides rewards after the credible verification of an achieved result. These rewards can be monetary or non-monetary and can be partial (such as a bonus on top of a salary) or whole (such as the cost of training a teacher under output-based aid)". Results can be outputs, intermediate outcomes, final outcomes or a mixture of all of these (World Bank, 2018).

RBF incentive schemes have been paid directly to teachers, students, families, schools and governments. While the research is neither comprehensive nor definitive, it indicates that incentives to teachers do not always improve attendance and learning, while incentives to students and families have a good track record of reducing school dropout and increasing attendance, although "effects on student learning is more mixed" (World Bank, 2018).

Conditional Cash Transfer (CCT) programmes (whereby cash transfers are made to family members in exchange for some behavioural change, e.g. increasing childrens' rate of school attendance) have been found to decrease school dropouts and increase attendance and completion rates. Evaluations of programmes in countries including Brazil, Honduras, Malawi and Colombia have found a positive impact in variables including re-enrollment, grade progression, labour outcomes and even health status, although in most cases these incentives do not improve learning outcomes (World Bank, 2018). There is perhaps an opportunity in South Africa to reconfigure child support or COVID-relief grants into CCTs, although this would require integration of data systems between the departments of Social Development and Education, and is highly risky given the already-existing challenges in social grant disbursement systems.

Rwanda is a forerunner in leveraging RBF, beginning in the early 2000s in the health sector, when post-genocide donor support for reconstruction began to wane. Evaluations of Rwandan RBF efforts note the following enabling factors for successful scaling up: (i) RBF programmes built on three existing donor-funded pilots, which enabled context-specific experimentation, and laid foundations for robust information systems for MEL and financial management and disbursements; (ii) There was broad political leadership and support; and (iii) the Government developed institutional capacity for managing service providers by building effective systems to responsibly manage funds and monitor indicators.

There is limited evidence of the effectiveness of performance-based grants to schools, and when it comes to RBF arrangements between donors and governments, there is a significant body of evidence for health interventions, but very little for education. However, surveys of those closely involved as donors and government officials within recipient countries indicate that the mechanism leads to a sharper focus on

results, and the strengthening of country systems (World Bank, 2018). However, there is a lack of consensus on whether RBF has a clear cost advantage over traditional financing. In some instances the transaction costs are lower and there are no disbursements without results, while in others the initial costs of acclimatising stakeholders to an RBF approach may be higher, and supervision and independent verification processes are expensive. With RFB, the initial funders of interventions carry substantial risk, as they will not receive payment in the event that outcomes are not achieved, and they may not have enough funds to cover the upfront costs of achieving results. There is also political risk, as accountability and coordination are complex when there are multiple actors involved. Project guidelines and procedures, and early, consistent and clear communication between all stakeholders, as well as pre-existing effective Education Management Information Systems (EMIS) and financial management systems are necessary when using RBFs in education.

Case Study

The state of Ceará in Brazil pioneered the use of results-based financing (RBF) as part of a comprehensive education reform programme between 2007 and 2020 (Loureiro *et al.,* 2020). Ceará is a relatively poor state in Brazil (with the 5th lowest GDP per capita among the 26 states, and a population of 9 million people). The reforms led to considerably improved learning outcomes for primary and lower secondary school learners[11] with highly efficient use of resources. The reforms focused on achieving literacy for all in early grades, and the main (interdependent) components of the reform were: (i) financial incentives for municipalities to achieve education outcomes[12]; (ii) technical assistance to municipal school networks; (iii) regular MEL and follow-up management; and (iv) municipal-level autonomy and accountability to achieve learning outcomes.

In 2007, a new state law was introduced whereby the share of state consumption tax that was previously based on population size and municipality income levels shifted to become fully based on results in education, health and environmental sustainability, with 72% of the entire allocation going to education. Municipalities received various forms of technical assistance to implement 'Literacy Programme at the Right Age[13]' (including standardised learning assessments, teacher training and support, and learning materials). The state government used generalised funds (not earmarked for education) for the RBF; "by keeping the transfers general purpose, subnational governments retain the option to generate incentives associated with the improvement of education outcomes to leaders across their administrations, not just the minister of education" (Loureiro *et al.,* 2020). Solid MEL and the design of an education quality index was a core component for promoting transparency and generating incentives for municipalities to improve results. The formulae informing the amounts paid incentivised pro-poor actions and focused on improvements (change) over time rather than levels, which allowed municipalities starting with low levels to receive substantial transfers. Higher rewards were allocated for the highest levels and gains, and municipalities with increased inequality between schools and/or learners, or who reduced numbers of poor-performing learners were penalised.

RBF has been used successfully in crisis contexts, and so holds promise for COVID-19 catch-up and recovery programmes. However, the World Bank (2018) notes that in these contexts initial outcomes should include indicators that speak to strengthening systems, rather than impact outcomes. For example, in Lebanon RBF was used by aid agencies to incentivise the government to prioritise quality education for both Lebanese and Syrian children. Four of the nine indicators that had to be met for

[11] "Despite its scarce resources, Ceará experienced the largest increase in the national education quality index (IDEB, an index considering progression rates and test scores in Portuguese and mathematics) in both primary (grades 1 to 5) and lower secondary education (grades 6 to 9) since 2005, when IDEB started to be measured. Almost all of its 184 municipalities departed from very low levels of education quality (with regard to student learning and progression) to be among the highest IDEB scores in Brazil, with 10 municipalities of Ceará in the top 20, including Sobral which has the highest score (Loureiro *et al.,* 2020)."

[12] The total amount of transfers reached more than the equivalent of US$100 million (Loureiro *et al.,* 2020).

[13] This initiative was originally funded and piloted by UNICEF in 2007

funding to be disbursed were focused on improving data management, curriculum revision, establishing foundational policies and increasing planning and implementation capacity.

Pay for Success models
"Pay for success (PFS) is an innovative financing mechanism that shifts financial risk from a traditional funder – usually government – to a new investor, who provides up-front capital to scale an evidence-based social programme to improve outcomes for a vulnerable population. If an independent evaluation shows that the programme achieved agreed-upon outcomes, then the investment is repaid by the traditional funder. If not, the investor takes the loss" (Urban Institute, 2021).

With this approach, the government provides working capital up front, and investors pay out only in the event that the project fails. While this offers a workaround to the challenges with spending public funds on contingent financing, there may be insufficient incentive to unlock private capital. However, this approach holds promise for philanthropic investments looking to unlock public funding, and can be used to recycle initial investments to sustain successful initiatives.

Social Impact Bonds
SIBs are public-private partnerships that fund the delivery of social and/or environmental impact through performance-based contracts. Impact investors provide the capital "to scale the work of high-quality service providers" (Social Finance, 2021), and if and when specified metrics have been delivered, the government then repays the investors, along with a financial return tied to the level of social impact delivered. Programme implementers are thus paid irrespective of the outcomes, and private investors carry the risk and are eligible for financial returns in addition to repayment of the principal capital in the event of success.

SIBs promote focus on the results of a service, rather than the service itself (Intellidex, 2021c), which creates space for innovation and contextual relevance as implementers have agency in the programme design and implementation. This can be particularly helpful in addressing complex problems suffering from a history of policy failure, or poor delivery of outcomes. Intermediaries providing capacity building and MEL support can help implementers to improve operations and establish systems and processes for scale.

However, SIBs are generally extremely expensive, with large upfront design and contracting costs. Designing the right indicators and MEL systems including verification of outcomes is key to preventing "cream-skimming" (e.g. where initiatives select already well-performing learners or drop under-performing learners). SIBs carry a novelty risk, as it's a new instrument, so investments are generally made into a special purpose vehicle (SPV) without a track record or credit history. There is also a potential tax complexity for philanthropic foundations needing to keep their tax exemption status.

Development Impact Bonds
The principles for DIBs are the same as for SIBs (Centre for Global Development & Social Finance, 2013), but whereas in SIBs the outcome payer is the Government, in a DIB the outcome payer can be a philanthropic donor or multilateral aid agency (GO Lab, 2021). DIBs are used to leverage funding from private investors, who earn a return if the programme is successful, paid by a third-party donor.

Who funds outcomes in South Africa?
Impact investments are "investments made into companies, organisations, and funds with the intention to generate social and environmental impact alongside a financial return" (GIIN, 2016). While a small percentage of grant funding to NPOs and social enterprises is tied to outcomes delivery, there have been very few models that leverage impact investments and include a financial return.

In their analysis of all known impact investment deals in South Africa to date as of mid-2015, GIIN (2016) record $9.8 billion of Development Finance Institution (DFI) and $4.9 billion of non-DFI impact investment.

While the report highlights "immense opportunities for impact investors to invest in projects aimed at improving the quality of education for poorer segments of South African society" (pg. 81), until mid-2015, only $111 million of DFI[14] and $49 million of non-DFI[15] investments were in education. 90% of the capital disbursed by non-DFIs was for equity in social enterprises (GIIN, 2016).

Most DFI funding in South Africa goes to infrastructure; investments into, for example, solar or affordable housing (Intellidex, 2021b). The African Development Bank (AfDB) announced plans in 2013[16] to offer an Education Support Bond to Japanese retail investors, the net proceeds from which were to be used to fund projects in education (OSF, 2013). More work is needed to get the DFIs to broaden their mandate beyond infrastructure. As most ASPs serving learners in quintiles 1 to 3 are implemented by NPOs with grant funding, innovative financing mechanisms need to be developed in order to attract impact investments requiring a financial return. There is also an opportunity to leverage BBBEE skills development funding to cover intermediary functions such as technical assistance and training. International development aid funding, or Overseas Development Assistance (ODA) could be tapped for catch-up programmes. As ODA funds typically come in large amounts, and require extensive due diligence and reporting, a collaborating coalition of ASPs, with centralised MEL and reporting capacity is needed to increase eligibility for this funding. The total ODA to South Africa for education in 2017 was $60.7 million (De Witt, 2020).

A number of innovative financing mechanisms have been deployed in South Africa to address youth unemployment, where 32%, or 3.2 million people between 15 and 24 years old are Not in Education, Employment or Training (NEETs) (Khuluvhe *et al.*, 2021). These include the Jobs Fund,[17] Yes4Youth[18] and the Presidential Youth Employment Initiative. The latter has recently been implemented as the Basic Education Employment Initiative[19] (BEEI), where R4.5 billion was deployed to pay stipends to 320,000 young people fulfilling roles as Education Assistants and General School Assistants between December 2020 and April 2021. The youth were placed in 23,000 schools to provide support before school began, during school time and after school. There is an important collaboration opportunity between such job placement initiatives and the ASP sector which has extensive experience in managing volunteers and first-time employees to deliver quality educational programmes.

South Africa has seen two SIBs; both launched in 2018: "the Inclusive Youth Employment Pay For Performance Platform (also known as Bonds4Jobs, or B4J), and the Impact Bond Innovation Fund (IBIF)" (Intellidex, 2021). Both SIBs aimed to address major, complex challenges in South Africa: B4J addressed youth unemployment and IBIF aimed to achieve better delivery of early learning outcomes (and in particular literacy levels) through a home-based learning programme targeting pre-primary aged children.

Partners across sectors collaborated to realise these South African SIBs. Appendix C contains details on which partners from each sector (government / philanthropic foundations / non-profit organisations / for-profit companies) fulfilled which roles (outcomes funder / investor / implementing agent / intermediary / outcomes and finance auditors). Both SIBs yielded interesting lessons to inform innovative finance initiatives in the future, outlined in detail by Intellidex in three recently published reports (2020, 2020a & 2020b).

[14] Compared with DFI investments into other sectors, for example, $8,975m into energy, $2,406m into manufacturing, $2,403m into financial services, $441m into Health and $57m into tourism.
[15] Compared with non-DFI investments into other sectors, for example, $1,646m into financial services, $769m into manufacturing, $5222m into energy, and $411m into housing. (GIIN, 2016)
[16] https://www.thenigerianvoice.com/movie/108913/afdb-offers-education-support-bond-to-japanese-investors.html
[17] http://www.jobsfund.org.za/CurrentCallForProposals.aspx
[18] https://yes4youth.co.za
[19] https://www.education.gov.za/PresidentialYouthEmploymentInitiative.aspx

The defining feature of a SIB is that the government pays for the outcomes, and strong political commitment has been identified as a key factor for successful RBF projects generally (World Bank, 2018). In the case of B4J, the Gauteng Provincial Government indicated that it would be willing to fund outcomes again. However, the DSD did not commit to a second round of IBIF due to budget cuts, and hence didn't see the SIB as a potential solution to their reduced budget (Intellidex, 2021).

The likelihood of the SIB instrument being deployed for scaling up ASP delivery of learning outcomes is contingent upon the government stepping up to pay for outcomes. This will be challenging, as the DBE's budget has very little room for adjustments with the vast majority going towards inputs (i.e. salaries). It can however be argued that improved learning outcomes speak to the objectives of multiple government departments, from the DSD to the Departments of Employment and Labour (DEL); Higher Education and Training (DHET); Science and Innovation (DSI); Sport, Arts and Culture (DSAC); Trade, Industry and Competition (DTIC), as well as Provincial and Municipal Governments. Identification of a Government entity willing to act as the outcomes funder is the first step in evaluating the feasibility of a SIB for delivering learning outcomes.

The participation of philanthropic foundations in the two South African SIBs is an encouraging indication that there may be an appetite for a DIB for learning outcomes. In writing about B4J, Intellidex (2021b) states that the SIB "represented an evolution in the kind of role non-profit foundations can play in social delivery (including) deploying funds differently to the norm of non-recoverable grants. Making interest-bearing investments as a foundation in a social enterprise carried the potential of recycling and reusing funds for social causes". The involvement of philanthropic foundations also presents potential for building a blended finance model, whereby foundations could carry some of the risk and take lower (or no) returns, in order to attract commercial investors to deploy traditional investment capital for social impact investments.

Measuring, tracking and reporting on outcomes in Education

It is evident from the extensive literature on innovative finance models focusing on outcomes that MEL is a core component of success or the lack thereof. Unfortunately, the MEL across South Africa's education ecosystem is fragmented and somewhat fraught. The EMIS systems are unwieldy; the Western Cape uses CEMIS, separate from that used by the rest of the country (SA-SAMS), and data quality (in terms of comprehensive data collection and accuracy) across both systems are notoriously poor. Due to the lack of integration between systems, learners are not properly tracked when they move from primary to secondary school, and so the systems do not record whether a learner has dropped out, moved schools or provinces. Thankfully, the DBE as well as donors such as the Michael and Susan Dell Foundation (MSDF) have invested heavily in improving SA-SAMS, and the New Leaders Foundation (NLF) and others have built platforms such as the Data-Driven Districts Dashboard (DDD) to improve usability and usage, and to drive data-informed decision-making in schools and districts. However, the lack of standardised testing in grades before matric means that we do not know which children are struggling most, or in which learning areas, until it's far too late.

There is an urgent need to integrate data from the schooling system with that of the ASP sector, to ensure that interventions target learners most in need; to track progress and impact over time; and to ensure holistic support to learners across the education ecosystem. In their research on countering the impact of COVID-19 on learners and schools in Cheshire West and Chester in the UK, Social Finance's (2021) findings show "the importance of aligning incentive structures to pupil well-being and early intervention for pupils experiencing disadvantage. This should be an opportunity for the Government to look at pupil and school outcomes holistically to proactively incentivise inclusive practice in response to the pandemic."

In writing about combining RBF interventions to overcome constraints, the World Bank (2018) emphasises the importance of combining interventions with institutional capacity building. While the ASP sector has made significant progress in MEL in recent years, there is still a long way to go in aligning data collected across organisations, integrating information systems across the sector and with provincial education

information systems, and building the evidence case. Challenges faced include a lack of funding, capacity and time for MEL: many of the longer-established and larger ASPs are sitting on years of data, and researchers are needed to assist with analysis.

In addition to building the evidence base, and informing programme design, delivery and scale, rigorous MEL is needed to measure outcomes so that the sector can better understand and communicate its value add, and position itself for impact finance. Many organisations need support to establish effective tracking and assessment systems and processes, and there is an urgent need for research to map the sector, its reach and its capacity to track, measure and deliver impact at scale.

Suggested approaches for financing ASP sector impact

SIBs, DIBs and Government funding all typically require a big ticket size. With the due diligence required (and especially in the event that investments are made into a new SPV), these investments typically need to be exceeding R100 million to warrant the effort (Intellidex, 2021b). Most ASPs have limited back-end capacity and reach, and so are unable to attract this type of funding alone. However, the sector as a whole could build its eligibility to attract impact finance by building a collective impact offering for investment.

In creating an enabling environment to leverage innovative finance to address South Africa's education crisis, there is an urgent need for aligned information systems that reach beyond the classroom and allow for tracking and analysis across the education ecosystem (and including ASPs) on a per learner basis. Once this is in place, with robust tracking against key learning outcomes, there is a strong case to be made for a Learning Outcomes Fund in South Africa. Initiatives with demonstrated impact in preventing dropout, enabling learners to reach minimum standards in Reading and Numeracy, and going on to reach and pass matric, and achieve important matric outcomes such as Diploma or Bachelor passes, or performance in key subjects, such as 50% or more for Maths, can then be paid per outcome, enabling them to reach more learners and deliver outcomes in a sustainable way.

"RBF project implementation should think of the purpose of monitoring and information systems, invest upfront in verification, and be adaptive and flexible in order to address realities on-the-ground" (World Bank, 2018). Appendix B outlines suggested outcomes and their associated measurements, and is offered here as a starting point for developing an outcomes-based payment model that incentivises improvements for most-at-risk learners. In order to be eligible for an outcome payment, ASPs would need to provide evidence that the learner reached meets minimum attendance requirements, and in cases where learners have participated in multiple ASPs during their schooling career, outcome payments can be made to each ASP on a pro-rata basis in accordance with programme attendance. Stakeholders across the sector, along with researchers and data analysts, will need to be engaged in developing this further, and a tech-based back-end will need to be developed to enable verification and tracking. DGMT's reading-for-meaning app, the Click Foundation's E-Quiz (an online version of EGRA), New Leaders' Data-Driven Districts Dashboard and Gradesmatch's matric and tertiary enrollment platforms are examples of tools that could be leveraged towards this end.

By routing funds to initiatives measuring and delivering outcomes, and incentivising education interventions to prioritise redressing inequality, the ecosystem of successful initiatives can scale. By earning income for delivering results, interventions can recycle one year's capital to invest in future learner cohorts. Figure 2 illustrates a proposed impact investment ecosystem to scale and sustain learning outcomes in South Africa.

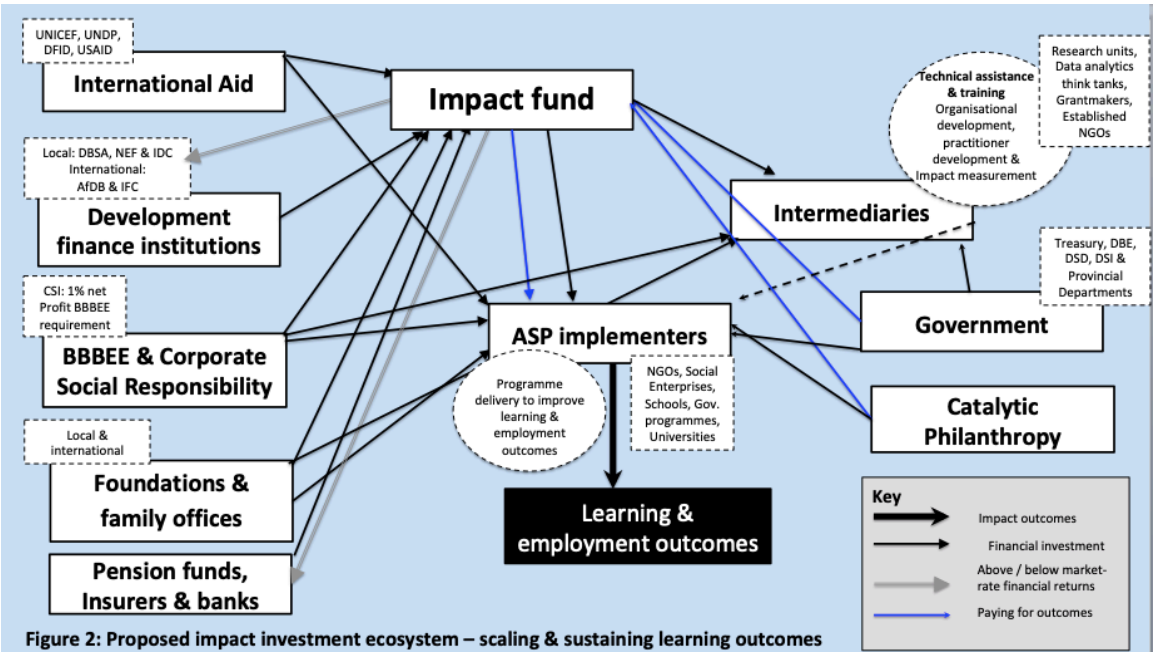

Figure 2: Proposed impact investment ecosystem – scaling & sustaining learning outcomes

Conclusion

Innovation can happen in a hurry… You can get food to families in distress at 70% of the current cost to the state… You can get digital content into children's homes and poorer schools, without any party losing out financially… Whether we will or not, however, depends on us. COVID-19 has created new precedents and platforms for change. We must now use them to greatest effect. (Harrison, 2020).

There is a long way to go before every learner attending a low- or no-fee school can enroll in an ASP. However, the opportunity to exponentially increase delivery of key learning outcomes in a school, district or province is well within reach. This presents an extremely compelling case for impact investment, and with concerted cross-sector collaboration between implementers, funders and researchers, ASPs could be leveraged not only to fill learning gaps deepened by school closures, but to reconfigure the education ecosystem's ability to deliver learning outcomes going forward. Key to achieving this is robust MEL systems, and the ASP sector needs to work with the government to integrate information systems and data processes, to ensure effective tracking of inputs and outcomes. Once an effective system is in place, there are exciting opportunities to leverage innovative financing to scale and sustain the delivery of learning outcomes.

Acronyms

4IR	Fourth Industrial Revolution
AEP	Accelerated Education Programmes
ASP	After School Programmes
B4J	Bonds4Jobs
BBBEE	Broad-Based Black Economic Empowerment
BEEI	Basic Education Employment Initiative
CABRI	Collaborative Africa Budget Reform Initiative
CBO	Community-Based Organisation
CCT	Conditional Cash Transfer
CEMIS	Centralised Education Management Information System
COD	Cash on Delivery
CSI	Corporate Social Investment
DBE	Department of Basic Education
DSAC	Department of Sport, Arts and Culture
DCDT	Department of Communications and Digital Technologies
DDD	Data-Driven Districts Dashboard
DIB	Development Impact Bond
DFI	Development Finance Institution
DGMT	DG Murray Trust
DHET	Department of Higher Education and Training
DSD	Department of Social Development
DSI	Department of Science and Innovation
DTIC	Department of Trade, Industry and Competition
EGRA	Early Grade Reading Assessment
EMIS	Education Management Information Systems
FCW	Foundation for Community Work
GDP	Gross Domestic Product
GIIN	Global Impact Investing Network
IBIF	Impact Bond Innovation Fund
ICT	Information and Communications Technology
IDEB	Índice de Desenvolvimento da Educação Básica
INEE	Inter-agency Network for Education in Emergencies
ISP	Internet Service Provider
MEL	Monitoring, Evaluation and Learning
MSDF	Michael and Susan Dell Foundation
NIDS-CRAM	National Income Dynamics Study – Coronavirus Rapid Mobile Survey
NDP	National Development Plan
NGO	Non-Government Organisation
NLF	New Leaders Foundation
NPO	Non-Profit Organisation
ODA	Overseas Development Assistance
OSF	Open Society Foundation
PC4IR	Presidential Commission on the 4th Industrial Revolution
PBO	Public Benefit Organisation
PfR	Pay for Results
PfS	Pay for Success
R&D	Research and Development
RBF	Results-based Financing
SA-SAMS	South African School Administration and Management System
SDGs	Sustainable Development Goals
SIB	Social Impact Bond

SEL	Social and Emotional Learning
SPV	Special Purpose Vehicle
TaRL	Teaching at the Right Level
URL	Uniform Resource Locator
YASPO	Youth and After School Programme Office

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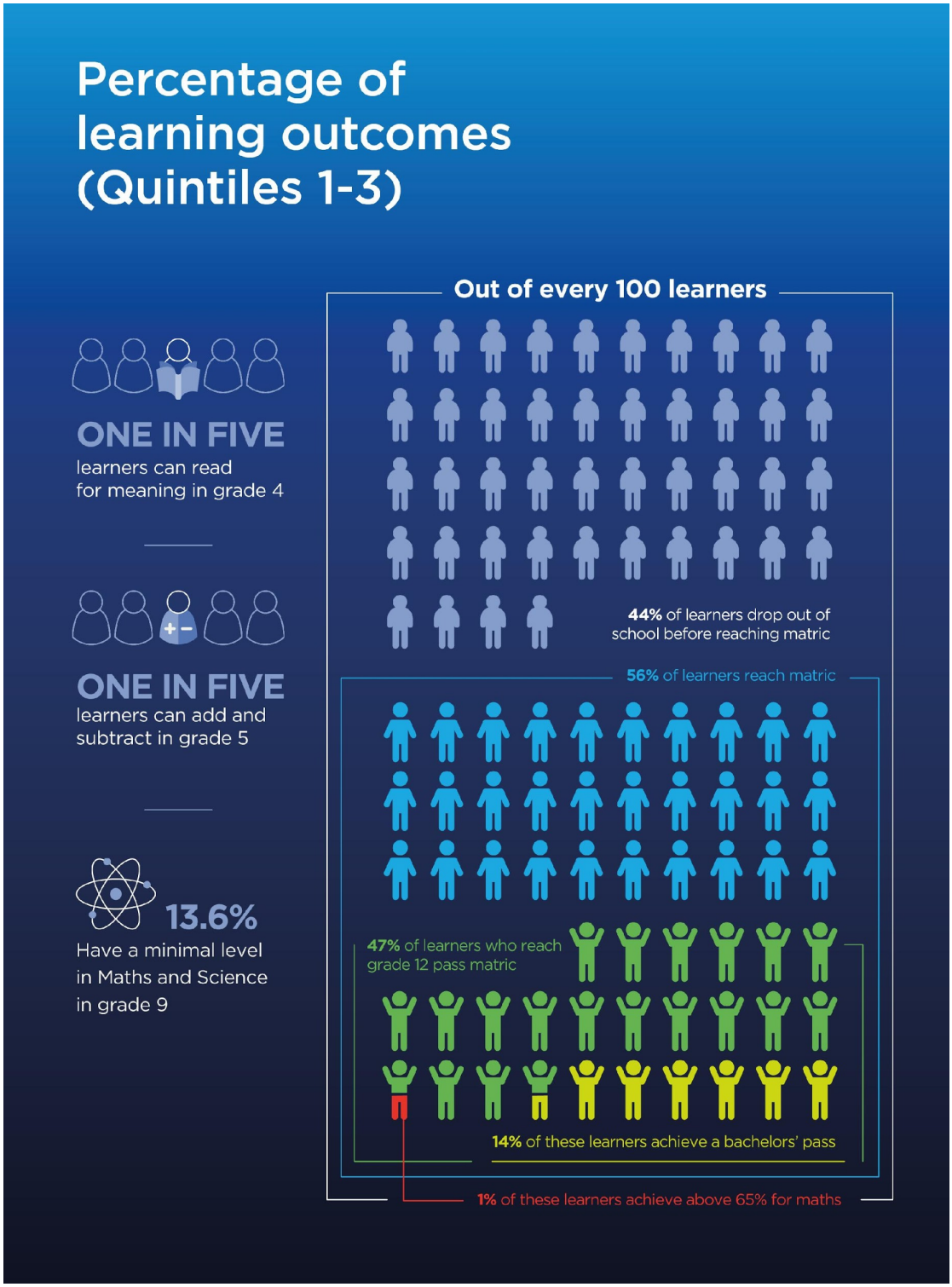
Appendix A: Percentage of learners in quintile 1 to 3 schools achieving learning outcomes in South Africa pre-COVID-19



Infographic from Olivier (2021)

Appendix B: First phase development of RBF model for learning outcomes in South Africa

Key

Extra bonus payment	
Bonus payment	
High payment	
Medium payment	
Low payment	
No payment	

Primary School RBF model *Risk category upon enrollment in ASP*	**Pass assessment**	**Achieve above average in assessment**	**Excel in assessment**
High risk - failing language or maths assessment			
Medium risk - failing language or maths assessment			
Likely to pass language or maths assessment			

Examples of assessments to be used for primary school learners include:

EGRA (grades 1 - 3)
EGMA (grades 1 - 3)
PIRLS (grade 4)
TIMSS (grade 6)

Secondary School RBF model *Risk category upon enrollment in ASP*	**Pass grade 6 / 9 systemic**	**Achieve above average in grade 6 / 9 systemic**	**Excel in grade 6 / 9 systemic**	**Enroll in following grade**	**Pass matric**	**Diploma Pass**	**Bachelor Pass**	**Bachelor Pass Plus above 50% for Maths**
Overage risk flag								
High risk - failing gr 6 / gr 9 language or maths systemic assessment								
Medium risk - failing gr 6 / gr 9 language or maths systemic assessment								
Likely to pass gr 6 / gr 9 language or maths systemic / TIMSS								
High risk - fail matric								
Medium risk fail matric								
Likely to achieve Senior Certificate								
Likely to achieve Diploma pass								
Likely to achieve Bachelor pass								

Appendix C: Participants in South Africa's SIBs (Intellidex, 2021)

	IBIF	**B4J**
Government departments & entities	**Western Cape DSD** (Outcomes funder)	**Gauteng Provincial Government** (Outcomes funder) **Jobs Fund** (Outcomes funder)
Philanthropic Foundations	**ApexHi Charitable Trust** (Outcomes funder) **Standard Bank Tutuwa Community Foundation** (Investor) **LGT Venture Philanthropy** (Investor)	**First Rand Empowerment Foundation** (Outcomes funder) **Allan Gray Orbis Foundation** (Outcomes funder) **Standard Bank Tutuwa Community Foundation** (First loss Investor) **Oppenheimer Generations Philanthrop**y (First loss Investor) **UBS Optimus Foundation** (First loss Investor)
For-Profit Companies	**Futuregrowth Asset Management** (Institutional Investor) **Volta Capital** (International Development Consulting firm that managed the investments, the outcome payment model and the process of soliciting investment) **Development Works Changemakers** (Development consulting firm providing outcomes auditing services) **BDO** (Accounting firm providing financial auditing services)	**Yellowwoods** (Outcomes funder) **Clientele** (Senior Investor) **Hollard** (Senior Investor)
Non-Profit Organisations	**Foundation for Community Work (FCW)** (Implementing agent) **mothers2mothers** (Intermediary providing technical support and worked with FCW to build capacity and ensure social delivery was on track.)	**Harambee** (Aggregate outcomes funder and implementing agent) **WeThinkCode** (Implementing agent) **Explore Data Science Academy** (Implementing agent) **Brimstone Legacy Fund** (Investor - Capital Preservation)