

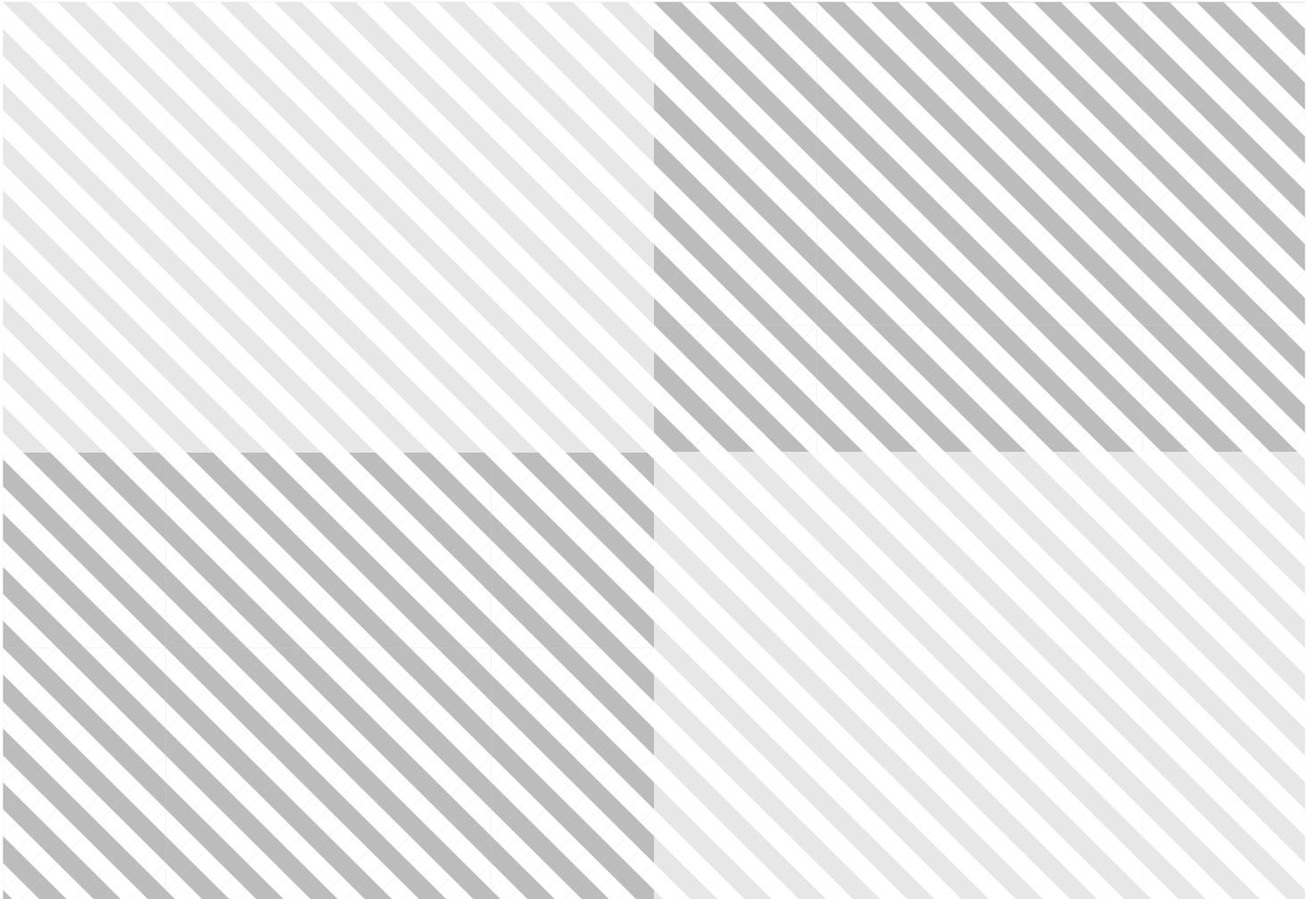
White Paper

Unleashing Greatness

Nine Plays to Spark Innovation in Education

Prepared by the Global Agenda Council on Education

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Introduction

Michael Barber

Chief Education advisor, Pearson, United Kingdom; Chair of the Global Agenda Council on Education

Adequacy is an unacceptable outcome in education and learning. Students need and deserve more. Leaders can do better. Government must strive towards becoming increasingly accountable to its citizens and effective in its working. We grew up on opposite sides of the Atlantic Ocean (Joel from Queens, New York, and Michael from Liverpool, United Kingdom), but have forged a deep friendship based on these beliefs. We share a desire to see great education systems marked by students succeeding – from all backgrounds and all types of schools – where equity goes hand in hand with diversity, and both are propelled by excellence.

Joel Klein

Joel Klein, Chief Policy and Strategy Officer, Oscar Insurance, USA; Vice-Chair of the Global Agenda Council on Education

We know from history and our own experience that great education systems cannot be created solely through an edict from Whitehall or Washington, DC. To do this, whole system reform – such as that seen in Madrid, Punjab, London and New York City – must be paired with systemic innovation. As we have learned, you can mandate adequacy, but you cannot mandate greatness: it has to be unleashed.

This playbook serves to continue a conversation around the second component of great education systems – how to spark innovation in education. It offers a series of plays as a complement, not a substitute, to holistic system reform. A focus on innovation should not distract from efforts to raise student achievement, ensuring that every student has a “high floor” of expectations and support underneath their feet.

The Productivity Imperative

Change is accelerating. All aspects of life are being upended as technological advances have brought us to the cusp of a Fourth Industrial Revolution. We are focusing on the need for innovation in education owing to a systemic inability to keep pace.

Despite increased investment and improved access to education, international measures of achievement show a performance ceiling has been reached. Between 2000¹ and 2012², there was no statistically significant improvement in mathematics scores for the top nine countries on the PISA assessments. To take another example, US NAEP survey results indicate that while incremental progress has been made in lower grades, overall performance has improved very little since the 1970s.³

When other sectors experience flat-lining productivity they look to innovation. Emerging evidence from an OECD report, [Measuring Innovation in Education: A New Perspective](#), suggests this is also the key to delivering better outcomes in education. But good ideas are not enough. The same evidence from the OECD points to levels of innovation in education that match those in other sectors. So the central question is perhaps not the extent of innovation, but its quality and speed from idea to impact. Innovation is happening, but too little of it is focused at the heart of learning and when it does it spreads too slowly.

Investments in technology have largely automated existing pedagogies or delivered school efficiency savings outside of the core of learning and teaching. Where new school providers have entered systems, the innovation is often more about school marketing than reimaging the learning model. This prompts the question of how to spark the right type of innovation in education.

The right enablers

Government can innovate, but it cannot do all the innovation necessary, or even most of it. Innovation is not prescriptive. As such, it is critical for leaders to see themselves as stewards, or gardeners. By creating an innovation-friendly climate, transformative innovation can bloom at the grassroots and school level. To get at the right types of innovation (and then take them to scale), three general enablers are needed – each of which need to be designed thoughtfully if an education system is to create conditions for innovation and greatness to flourish:

1. *Opening up systems:* System leaders need to create a climate for innovation to thrive, both by fostering innovation within a system and creating opportunities for outside innovations to enter the system. As Council Member Rebecca Winthrop, Senior Fellow and Director, Brookings Institution, USA, wrote in a recent report on scaling quality education in developing countries: "... largely guided by governments from national to local, the ecosystem in which programmes or policies operate plays a critical role in facilitating or impeding the scaling process."⁴
2. *Support to make great ideas real:* Innovation requires collaboration and openness to new ideas, both within the system and with outside actors. Dynamic and complex human networks allow great ideas to be shared, refined and borrowed while access to funding and non-financial support can lift those ideas into action.

3. *Smarter demand for what works*: System leaders need to create a persuasive vision, identify priorities and build accountability systems that signal a clear demand for effective and innovative solutions. For open systems to encourage quality there needs to be transparent information on how effective schools and technologies are. Do they work, and against what criteria?

This playbook offers nine approaches that system leaders can use to spur innovation within their system. Each play is a general principle, accompanied by questions and case studies. With such a diverse global education landscape, no single programme will work well everywhere. Yet despite how different education systems may be, these principles can be applied flexibly in varying contexts.

Execution and Delivery

Good intentions and ideas are not enough to ensure success. We know from personal experience that without attention to execution and delivery, even the best ideas and most courageous leaders will fall short.

Joel saw this risk while opening 500 new schools and maintaining responsibility for 1.1 million students in New York City (as described in “Lessons of Hope”). Michael drove delivery at the heart of the UK government and has spent his life working to improve government and public services in more than 50 countries (lessons captured in books like “Instruction to Deliver” and “How to Run a Government”).

We offer these plays and principles as tools to spark innovation, but stress that each of these plays will only achieve success to the extent the play is thoughtfully and consistently executed. That said, execution is no shield from the noise of criticism. Leaders will need courage to continue pursuing these principles, despite failure, until finally seeing success.

This playbook is a short primer on this important topic. Throughout our careers, we have written at length on what it takes to deliver a great education system. This playbook is meant to raise key themes, not exhaust them. The plays provide guiding principles for supporting innovation, but are not prescriptive about their precise implementation. We hope to spark a dialogue with leaders, new to the challenge of delivering innovation in education, but hungry for improvement. That conversation is one we, and the entire Global Agenda Council on Education, would love to continue.

Sparking the right types of innovation in education is an important part of creating a world where students are able to have better lives and are achieving much higher levels of success. We hope here to promote a productive conversation.

“

The road to education reform is littered with good ideas, poorly executed.

”

Joel Klein, Chief Policy and Strategy Officer, Oscar Insurance, USA

¹ Highlights from the 2000 Program for International Student Assessment (PISA), National Center for Education Statistics.

² PISA 2012 Results in Focus: What 15-year-olds know and they can do with what they know, OECD, 2012.

³ Campbell, J.R., Catherine M. Hombo and John Mazzeo, *NAEP 1999 Trends in Academic Progress: Three Decades of Student Performance*, National Center Education Statistics, 2000.

⁴ Perlman Robinson, Jenny and Rebecca Winthrop, with Eileen McGivney, *Millions Learning: Scaling Up Quality Education in Developing Countries*, Brookings, 2016.

The Plays

1. Provide a compelling vision of the future

Educational leaders need to present a persuasive vision of how the future can be better. Systems stay stable because they serve some stakeholders well but often not students. Leaders need to demonstrate that the current status quo cannot endure and provide an alternate vision of what the system's purpose should be and who it should serve. A compelling vision can align internal and external stakeholders around the need for change. It can also stimulate public demand for a more effective education system that meets the needs of all.

- Articulate who the education system should serve and how
- Use that vision to signal the types of innovations or school and learning models that should come forward
- Avoid false dichotomies between basic and advanced skills (e.g. literacy versus 21st-century skills) or between technical skills and broad development (e.g. STEM versus [success skills](#) or mindsets)
- Engage with community members and other stakeholders to build a shared vision, but do not concede on ambition

Case Study: [London](#)

In 2003, the Department for Education and Skills released [Transforming London Secondary Schools](#), which laid out a comprehensive vision to turn a chronically underperforming system to one which would “match any system in the world”. The strategy was built on the past Labour administration's effort to improve learning (such as the National Literacy Strategy). The vision was a holistic approach, pairing accountability, choice and a focus on data to tangible support in building local collaboration. Strong leaders were crucial at all levels of the system, making real progress in schools and leading to internationally-recognized results. The capital now hosts “the highest proportion of students obtaining five good GCSE's, the highest percentage of schools rated ‘outstanding’ by Ofsted, and the highest GCSE attainment for pupils from poorer backgrounds.” ([Lessons from London Schools: Investigating the Success](#), Centre for London, 2014)

Case Study: [New Orleans Recovery School District \(RSD\)](#)

In the aftermath of Hurricane Katrina, the US state of Louisiana dramatically reshaped the structure and governance of the New Orleans public school system to allow for new actors and methods, greater choice and accountability. The state provided a new vision for how a US school district might operate, effectively resetting the district, taking control of almost all schools, resetting teacher contracts and eliminating most attendance zones. Charter management organizations were tasked with running these schools, with the state functioning as an oversight and funding body. Schools were granted autonomy to innovate, but remained linked to high accountability standards. While the process has not been without its challenges, both cultural and political, success and improving student achievement has been seen in what was once a traditionally underperforming and dysfunctional school district. This new model, often referred to as a [portfolio strategy](#), has spurred adoption in cities across the United States.

2. Set ambitious goals that force innovation

Setting ambitious goals, particularly nearly impossible ones, forces the entire system to innovate and drive toward those goals. Ambitious goals should be paired with enough flexibility to create room for new innovation. Compelling goals can align internal and external stakeholders around the importance of change, stimulate public demand for innovation and dramatically accelerate system progress.

- Create goals that have a clear role for all or most of the system
- Set a small number of well-designed targets (e.g. achieve 85% student literacy system-wide rather than improve literacy in the South-West)
- Demonstrate to educators and administrators how they can contribute to the goals
- Make clear connections between the goals and their impact on learning outcomes
- Identify clear benchmarks that allow you to track progress (see Play 5)

Case Study: Chile

Since 2000, Chile's education system has substantially improved learning quality, including boosting student reading assessments by more than 20 points between 2000 and 2009. Chile focused substantial new investments in the education system on a small number of priorities. These priorities, like increasing instructional time, were directly linked to learning outcomes, and implementation was tracked rigorously by the Chilean education quality measurement system, SIMCE (Sistema de Medición de la Calidad de la Educación).⁵

Case Study: Pakistan

In 2010, Mian Shahbaz Sharif, Chief Minister of Punjab, set high goals for improving education in Pakistan through a focus on delivery – demanding 100% enrolment, improved attendance and higher quality standards. An education roadmap was created, providing provincial targets and metrics for showing how each of the 36 districts could contribute to achieving these ambitious goals. By pairing ambitious and rigorous goals to a commitment to delivery and routines, Pakistani leaders were forced to innovate and improve delivery, making dramatic gains against those targets. Data was key to supporting and driving this delivery as, “Punjab went from having no insight into what was happening in schools, to now collecting data against 16 indicators from 55,000 schools every month.”

3. Create choice and competition

Choice and competition can create pressure for schools to perform better. Choice can be created at many levels – students and parents can choose schools, or educators can have greater choice in where to work. Better choice, however, depends on the availability of quality options and quality information on those options. Creating options can improve outcomes, but, when dealing with markets, special care should be taken to ensure that equity is not sacrificed for the sake of efficiency.

- Consider using a well-designed voucher scheme to empower families to choose the best public or private schooling option
- Pay special attention to ensuring that new options and competition benefits those who need it the most; do not forget about the impact of access questions, including as transportation and broadband
- Act as a choice architect, using “nudges”, public report cards and mechanisms like unified, system-wide school lotteries to help focus on equity and quality (Unified school lottery systems allow parents to list preferred schools, then use an algorithm to maximize the number of students attending a school of their choice; unified lotteries can limit “gaming” of applications and increase equity, particularly for disadvantaged families)

Case Study: New York City

Starting in 1999, New York City began opening charter schools, with a major expansion under the chancellor's Charter School Initiative. Charter school assignments are made by lottery, and the charter schools ultimately serve a higher number of minority and economically disadvantaged students. Research on students enrolled in New York's charter schools show that students served by charter schools outperform their peers and suggests that the charter schools in New York also improved educational equity.

⁵ Perlman Robinson, Jenny and Rebecca Winthrop, with Eileen McGivney, *Millions Learning: Scaling Up Quality Education in Developing Countries*, Brookings, 2016.

Case Study: Colombia

The Colombian government established the Programa de Ampliación de Cobertura de la Educación Secundaria (PACES), or Program for Coverage Expansion in Secondary Education, in late 1991 in an attempt to expand private provision of public services. Since it was inaugurated in 1991, PACES has provided more than 125,000 pupils with vouchers covering somewhat more than half the average cost of private secondary school. On balance, the results of these three assessments of PACES in Colombia suggest that there has been a substantial gain in high school graduation rates and achievement as a result of the voucher programme.

Case Study: Pearson Affordable Learning Fund

Launched in 2012, the fund looks to invest in market-based solutions that will improve access to high quality education for poor families across the world. Almost four years later, [the fund manages](#) nine investments across Africa and Asia. These investments include affordable private school chains, tutoring programmes, managed services, as well as curricular and content solutions, which are collectively serving over 100,000 students. The innovations the fund supports could potentially be adopted by governments, as the per learner cost of education in the fund's investments is generally comparable to government spending in these countries.

4. Pick many winners

When launching competitions, or new service models, pick more than one winner. Supporting multiple ideas or approaches at once spurs all providers to continue to improve and compete – whether you are testing new technology tools or new school models. Systems that reward a single “winner” discourage further improvement and learning, and tend toward stagnation. As seen with challenge prizes, the goal should be to use funding or recognition to stimulate a wave of innovation, generating new ideas, patents and market participation.

- Consider using tiered competitions, rewarding a large pool of winners at first, followed by a narrower group in subsequent rounds; tiered competitions can both reward the best ideas with the best evidence of success while spurring the exploration of many other ideas in early rounds
- Foster a cohort of winners and encourage them to regularly interact, share ideas and discuss challenges; cohorts of winners can learn from one another to make their services better
- Publish evaluations of the effectiveness of each winning idea

Case Study: Race to the Top, United States

The US Department of Education offered \$4 billion to states of competitive grants, focused on shifting education policy and stimulating reform as part of the American Recovery and Reinvestment Act (ARRA). Forty states and the District of Columbia submitted applications for phase one, as these grants rewarded states willing to adopt policy identified as being critical for creating the conditions for innovation and rising education performance. While not without controversy, it is clear that these grants impacted state policy, with slightly differing effects in each state. As noted by [Education Next](#), “between 2001 and 2008, states on average enacted about 10% of reform policies. Between 2009 and 2014, however, they had enacted 68%... At the rate established by pre-existing trends, it would have taken states multiple decades to accomplish what, in the aftermath of the competitions, was accomplished in less than five years.”

Case Study: Mayor's Challenge

Bloomberg Philanthropies challenges cities in a region (e.g. Europe, the United States, Latin America and the Caribbean) to propose new ideas for solving existing problems in a scalable fashion; 305 cities in the United States and 155 cities across Europe have submitted ideas. Eligible ideas are taken through a vetting and evaluation process that brings participants together to collaborate. The winning cities receive technical and financial support is provided to implement their ideas. Those ideas and learnings are shared across the network of participants, fostering a learning community.

5. Benchmarking and track progress

High-quality data at the school and district level allows leaders – and everyone – to see progress towards the goals. It can also be used by leaders as a discussion point with principals and staff to identify and troubleshoot problems. No matter the quality and clarity of the data, the data only provides an imperfect representation of something even more important: the real world learning outcomes that matter to citizens.

- Choose the right type of benchmarks; organizations can benchmark against five different standards:
 1. Against history (What levels of performance have we achieved in the past?)
 2. Against the world (What levels of performance have we achieved in systems like this elsewhere in the world?)
 3. Against other similar systems (How do we compare to other systems like ours (e.g. among Australian provinces or German länder?)
 4. Within the system (What levels of performance are achieved by the best-performing units in the system, e.g. a hospital, a school, a police force?)
 5. Against organizations that are altogether different but have some similar or relevant system. (What can we learn about how they do that?)⁶
- Create mandatory standards and processes for the collection and public reporting of data

⁶ Barber, Michael, *How to Run A Government: So that Citizens Benefit and Taxpayers Don't Go Crazy*, 2016.

- Use benchmarking data as basis for discussions with administrators about what is working and how to address deficiencies within the system
- Be transparent about both the limitations and benefits of benchmarking data when addressing the public and policy-makers

Case Study: National Literacy Strategy, United Kingdom

In 1997, the Blair government announced a target of 80% achieving high standards in literacy (up from 63%). To reach that target, the Department for Education set out five key aspects of focus and broke the overall target down into specific targets for each of the 150 local authorities. The targets provided a focal point for driving change and encouraging a shift in mindset across the system. The interventions – such as a mandatory national Literacy Hour and new structure on the curriculum for English teaching – combined with that accountability to move national achievement forward. At the beginning of the process, the Department of Education made a rough estimate of the potential impact of a series of interventions. These estimates were very close to the actual improvements the system made for the first three years.

Case Study: Link School Performance Review, Uganda

Launched in Uganda in 2000, this initiative allows schools and districts to measure its performance against national standards and performance indicators. Using quality standards for gathering data, teams visit the school to gather data against key areas (i.e. teaching and learning processes, school leadership and management). Those results are scored and delivered to the school as part of a larger review process. Teams then work with school to develop improvement plans to address identified areas of need. Regular conferences are held to share what is working, publicize performance scores and continue focusing attention towards identified areas of need. The programme shows strong results and has expanded to Ghana, Malawi and Ethiopia.

Case Study: Edutrac, Peru

Irregular attendance by teachers and students can be critical impediments to improving education systems. Rural areas face logistical difficulties in collecting data and tracking measures of school improvement. In 2015, based on work conducted by UNICEF in Uganda, Peru launched a trial of Edutrac, a SMS-based service allowing the monitoring of teacher attendance, student attendance, timely delivery of education materials and school infrastructure maintenance. The pilot will also assess whether the programme makes the government's interventions more effective and whether it provides greater accountability to communities.

Case Study: Annual Status of Education Report (ASER), India

Since 2005, the non-governmental organization Pratham has been releasing the *Annual Status of Education Report*. In 2014, it covered 577 rural districts across India. It is currently the only measure of basic reading and numeracy achievement in grades 1-5 that gives a clear assessment of grade-level achievement. ASER has not only developed simple tools and a methodology for benchmarking in the early-grade and multilingual space (which is useful for evaluating the effectiveness of other innovations and interventions), but its findings are also galvanizing political and civil society action on basic quality.

6. Evaluate and share the performance of new innovations

Innovations need to actually work. For education systems to encourage quality, there needs to be transparent information on how effective new innovations and technologies are – Do they work, over what time period, and based on what criteria? Schools and education systems should invest in quality performance and impact evaluations of new innovations and broadly share the results.

- Fund independent performance and evaluations of new innovations, leveraging tools such as the [Standards of Evidence](#), to evaluate the impact of interventions
- Publicly share evaluation results in an accessible and attractive format
- Encourage or require school leaders and innovators to draw upon previous evaluations when choosing new interventions or purchasing new technology

Case Study: MindCET, Israel

The [Center for Education Technology](#) (CET) has provided funding, research and education leadership for 40 years in Israel. Within CET, MindCET is an independent innovation centre connecting researchers, teachers and education technology developers. By providing guidance, funding and support for scaling, MindCET works to unearth new ideas for improving education and encourage bottom-up innovation.

Case Study: iZone Gap App Challenge, United States

The iZone is an office supporting schools' innovation efforts and the effective use of technology. The iZone supports a community of approximately 250 schools. One initiative was the Gap App Challenge, a short-cycle evaluation programme that matches school teacher teams with edtech companies to pilot new products. All new innovations are measured against efficacy standards within a three-month window, allowing schools to rapidly test and evaluate the effectiveness of new approaches. During the 2014-2015 school year, the programme matched 40 NYC educators with 10 products to address needs ranging from delivering content to performing student assessments.

Case Study: [Palavra de Criança, Brazil](#)

This comprehensive literacy and learning programme began in Piauí state and combines curriculum development, teacher training, parental engagement and use of assessment data. The programme ensures basic literacy for all children by the end of grade three and promotes a learning disposition among early learners. UNICEF in Brazil has played a pivotal role in evaluating, sharing and scaling the programme, first in Ceara province and then in Piauí, Amazonas and Pernambuco. At its peak it was active in 224 municipalities.

7. Combine greater accountability and autonomy

Devolving authority to the school-level can remove barriers to innovation and allow school leaders the flexibility to explore new approaches. Increased autonomy needs to be paired with increased accountability, in which school leaders are accountable for the choices and results they deliver. This accountability requires greater transparency and clear performance metrics. Schools need both data and feedback, ministries need to assess the effectiveness of new approaches, and the general public deserves accurate information on school performance.

- Devolve responsibilities for budget, hiring and assessment to the school level as much as possible
- Provide flexibility for school leaders to choose technology platforms, buy textbooks and resources, and implement new teaching practices; as needed, ensure that schools adhere to system-wide regulations for procurement, teacher qualifications, etc.
- Measure the performance of schools against performance benchmarks and publish school performance metrics
- Hold school leaders accountable for their school's performance

Case Study: [United States](#)

In 2014, the Boston Foundation commissioned a study that examined Boston and five other US school autonomy programmes, including New York City, Baltimore and Los Angeles. According to the report, while blanket autonomy for school leaders does not by itself lead to improved student performance, research demonstrates that flexibility can enable higher performance when leaders use it to design instruction and organize resources strategically. In five of the six programmes, school autonomy programmes were linked to improved school performance.

Case Study: [OECD](#)

Based on results from PISA's 2009 database, the OECD found correlation between increased school-level autonomy over curricula and assessments and the performance of the entire school-system. It also found that, in systems with existing accountability measures, schools with greater autonomy over resource allocation performed better than those with less autonomy. In 2011, an [expansive study of four waves of international PISA tests](#) spanning results from 2000-2009 in over 42 countries suggested that autonomy may be conducive to student achievement in well-developed systems, but detrimental in low-performing systems.

8. Invest in and empower agents of change

New agents of change require support to make their ideas real and effective at scale. System leaders need to provide leadership development, coaching and mentorship, and other support systems that enable innovators to succeed. These innovators can be both inside or outside the system; teachers and administrators may be sources of innovation inside while new charter school/academy operators or social entrepreneurs may operate outside the system. Talent development needs to be carefully coordinated with policy, programmes and local communities' needs.

- Identify support structures for innovative administrators and teachers, such as leadership development programmes and innovation funds
- Create forums for teachers, administrators, students and partners to discuss and share new ideas
- Create a clear path and process for outside innovators to bring good ideas to school leaders and administrators (This can be a consolidated programme, system point of contact, or consistent method of contacting school leaders; existing institutional processes, such as procurement, can also hinder the flow of new ideas and should evolve to be more responsive to the needs of schools and offerings of new entrants)

Case Study: [New Leaders for New Schools, United States](#)

In 2007, New Leaders for New Schools partnered with the Louisiana Department of Education to train a new cohort of more than 70 school principals in Greater New Orleans. In each school year since 2011, more than 60% of the New Leader-led schools have outperformed the district in English/language arts and math, and 100% of New Leader principals who have been in their schools for at least two years are on pace to closing the achievement gaps in both math and reading in the next five years.

Case Study: [Teacher Education in Sub-Saharan Africa \(TESSA\)](#)

Focused on improving the quality of teaching practice and access to new resources, the British Open University partners with 12 organizations in Africa and provides training for more than 400,000 teachers yearly. The organization provides training, support, open education resources (OER), as well as fostering independent impact initiatives in Sierra Leone, Ghana and Malawi.

Case Study: [Lesson Study, Zambia](#)

Lesson Study is a Japanese-originated practice of peer-to-peer collaborative learning, whereby primary and secondary teachers share knowledge and skills to improve teaching through planning, demonstrating and assessing lessons. Lesson Study has spread to more than 50 countries. The government of Zambia, in partnership with the Japan International Cooperation Agency, started Lesson Study in 2005. The approach aims to strengthen school systems by encouraging teamwork among teachers and improving the supervision of school managers. Lesson Study has reached 1.8 million students and 46,000

teachers in all 10 Zambian provinces to date. Internal and external evaluations demonstrate that with Lesson Study, Zambian students have more opportunities to conduct hands-on activities and develop critical thinking, presentation and teamwork skills. Furthermore, teachers switched from traditional chalk and talk methods to an inquiry approach, allowing for students' learning to transform from instructed study to creative thinking."⁷

Case Study: Rishi Valley Institute for Educational Resources (RIVER), India

RIVER's key innovation is [School-in-a-Box](#), an activity-based learning programme, where government curricula are adapted for local context and organized into smaller modules that align with each student's ability. Children from different levels learn together in a self-directed fashion, enabling teachers to spend more time with weaker students. Local teachers gain ownership over their learning materials by developing School-in-a-Box sets, consisting of cards, charts and songs customized for their students. RIVER's School-in-a-Box learning materials are cheaper and more durable than textbooks, and its work has already created a critical mass of 500,000 teachers who are replicating the model in around 300,000 schools in 15 languages impacting more than 20 million children. Key players in public education, including education secretaries, district administrators, principals and teachers, train in RIVER methodologies for two to four weeks at the Rishi Valley Institute in Andhra Pradesh. RIVER then closely mentors the teams over a period of two years to ensure proper implementation of the model.

9. Reward successes (and productive failure)

Public and private recognition makes it easier for existing innovators to take risks and encourage the emergence of new actors. Rewards also highlight models of success, giving them greater exposure and increasing the likelihood of expansion. System leaders should reward both successful models and ambitious failures that support their goals and vision.

- Use a balance of public recognition and financial incentives to motivate innovators in your system
- Use rewards to encourage future experimentation; a key role for rewards is to make it clear that taking the risks to try something new are worth it (rewards for past risks – both successful and unsuccessful – can create incentives for the future)
- Highlight and praise the productive elements or learnings from a failed idea; when possible, encourage others to borrow the productive elements of that idea for future innovations
- Give special attention to solutions that address the most difficult institutional issues, like educational equity

⁷ Perlman Robinson, Jenny and Rebecca Winthrop, with Eileen McGivney, *Millions Learning: Scaling Up Quality Education in Developing Countries*, Brookings, 2016.

Case Study: Amazonas State Government's Media Center, Brazil

Brazil's Amazonas state government's Media Center initiative is a locally developed, formal secondary school model seeking to address the disparity in education access between urban and rural areas. It employs digital satellite technology to deliver live lessons from "lecturing" teachers at the Media Center studio in the capital, Manaus, to up to 1,000 classrooms across Amazonas state, with "tutoring" teachers located in each classroom with anywhere from five to 25 students. This initiative allows for bi-directional interactivity, meaning students can stream the teacher's lecture at the studio and present information back, thereby appearing to all other classrooms and to the lecturing teacher in the studio. Established in 2007, the Media Center's 60 lecturing teachers and 2,200 tutoring teachers have reached 300,000 students across 2,300 communities – approximately 25% of secondary school students outside of Manaus – to date. The Media Center model has been adapted to seven other states in Brazil to serve difficult-to-reach populations. Since its establishment, lower to upper secondary school progression rates have increased, drop-out rates have nearly halved between 2008 and 2011, and children's learning in Amazonas state has steadily improved as reflected on the Brazilian Education Quality Index.⁸

Case Study: WISE Prize for Education

Established in 2011, the WISE Prize for Education is a global award that recognizes an individual or a team of up to six people for an outstanding, world-class contribution to education. Laureates have made demonstrable and lasting impact on education at many levels through inspiring and visionary approaches.

Case Study: Global Teacher Prize

Started in 2013 by the Varkey Foundation, the Global Teacher Prize awards \$1 million to an exceptional teacher who has made an outstanding contribution to their profession. Based on research conducted as part of the [Global Teacher Status Index](#), the prize seeks to recognize and celebrate teachers across the world. A rigorous and transparent selection process seeks to maintain the integrity of the prize and its work has been widely praised.

⁸ Perlman Robinson, Jenny and Rebecca Winthrop, with Eileen McGivney, *Millions Learning: Scaling Up Quality Education in Developing Countries*, Brookings, 2016.

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