A Decade of Learning

10 Lessons from 10 Years of UK's Education Programming in Pakistan

Foreign, Commonwealth & Development Office

INTRODUCTION

This working paper presents key lessons from the United Kingdom's (UK) portfolio of bilateral development assistance for education in Pakistan, which ended in March 2022. The portfolio comprised several initiatives: The Punjab Education Sector Programme (PESP) and Khyber Pakhtunkhwa Education Sector Programme (KESP) were implemented in two phases, blending sector budget support and technical assistance. *Alif Ailaan*—a national education campaign under the Transforming Education in Pakistan (TEP) programme, Ilm Ideas, and the Sindh Education Non-State Actors (SENSA) programme complemented PESP and KESP by generating political support, innovation, tackling financial barriers for the poorest, and leveraging the role of the private sector. Together, this represents an investment of £800m over a decade.

Over the past decade, the UK's support has made notable impacts on access to basic education. Prior to the COVID pandemic, the education sector saw an additional 11.5 million children in basic and secondary education i.e., a 31% increase from around 36 million to over 48 million children between 2010-11 and 2017-18[1]. Between 2014 and 2021, the UK directly supported at least 5.8 million children to gain access to a decent education across Pakistan. In Punjab, the UK support helped an additional 1.23 million children enrol in public schools, while 2.6 million children were supported to attend low-cost private and non-state schools. In Khyber Pakhtunkhwa (KP), enrolment in primary and secondary schools increased by 55% between 2011 and 2018, with increases at the secondary level of above 70%.[2] In Sindh, the UK directly supported over 270,000 children, who otherwise would not have been in school. Several initiatives such as disability-inclusive programming, girls' stipends, and cash transfers were supported to increase enrolment of girls and marginalised children.

Successes extended beyond enrolment, with many improvements in the teaching ecosystem as well as learning. Both teacher and student attendance as well as content knowledge have improved, albeit still below grade-specific expectations. Learning among grade 3 students in Punjab's public schools improved. Between 2012 and 2019, the percentage of children achieving grade-level expectations in Urdu, Maths, and English improved from 50-84%, 57-85% and 58-78%, respectively.[3] Grade 5 student learning improved by 21 percentage points in Maths and 17 percentage points in English and Science between 2018 and 2020 prior to COVID. In Punjab, the number of qualified teachers increased by 50%, following the introduction of more rigorous, merit-based teacher recruitment methods. These teachers turned up to school more regularly, with attendance improving from 92% in 2012 to 95% in 2019 (pre-Covid-19). In KP, 33,000 new teachers were recruited into the workforce. Between 2015 and 2022, teacher attendance increased from 83% to 92%.

[1] Pakistan Education Statistics, 2010/11 and 2017/18 (latest available official figures).

[2] Ibid

[3] During COVID pandemic, however, these levels dropped by approximately 20 percentage points in every subject by 2022.

These successes were built on a range of governance and systems-strengthening measures. These included strengthening of assessment and data systems; more robust teacher recruitment, training and induction; improved local autonomy and support through better capacitated district officials; better quality textbooks and learning resources; and public financial management improvements through stronger output-based budgeting, enhanced execution and stronger auditing. These areas are discussed in more detail in lessons 1 to 4.

The purpose of this analysis is to extract most notable lessons to inform broader dialogue on education policy as well UK's next generation bilateral education portfolio in Pakistan. The paper draws primarily on the Official Development Assistance (ODA) delivered bilaterally through the legacy Department for International Development (DFID) and now the Foreign, Commonwealth and Development Office (FCDO). FCDO is standing-up its new portfolio of support in education through the Data and Research in Education (DARE) programme and the Girls and Out of School: Action for Learning (GOAL) programme.[4] This intermediary period presents an ideal opportunity to take stock of a decade of the UK's bilateral ODA support to education. This working paper presents 10 lessons on three broad themes:

- **Lessons 1 to 4 focus on education governance—systems strengthening and reform**
- **Lessons 5 and 6 focus on broadening access to education**
- **Lessons 7 to 10 focus on the ultimate objective of ensuring children learn well in school**

The readers of this paper should pay attention to three caveats upfront. First, this paper does not purport to capture all and every single lesson which could be derived from such a large and long-running portfolio of work. Rather, it attempts to identify, isolate, and illustrate some important and relevant perspectives from which useful lessons could be derived through dialogue and debate. Secondly, it is important to bear in mind that other donors were also supporting education reforms and delivery at the same time as the UK did. In Punjab, the World Bank and legacy DFID worked together closely to drive change at multiple levels. In KP, AusAID and GIZ were key partners of the government in the education sector. The lessons presented in this paper draw largely on the work directly funded by the UK government, but some insights and lessons also benefit from the wider development assistance context and interventions supported by a larger set of partners as well as the government's own initiatives. Therefore, attribution has to be interpreted cautiously.

[4] DARE has been into implementation phase for just one year and GOAL has been recently approved and announced by the UK Prime Minister.

GOVERNANCE: SYSTEMS STRENGTHENING AND REFORM

Lesson 1:

System improvements are most effective when their design is technically sound, and at the same time, is grounded in a deep understanding of how political support will be won.

Alignment between political incentives for supporting an education reform and technical design is not always straightforward. While political engagement and momentum are crucial to achieving key reforms in Punjab and KP, there are politically-charged issues on which finding a common ground or reconciliation with political stakeholders becomes a challenging task. In many such areas, the UK was able to adapt programming, provide effective technical support, and secure political support at various levels. Some illustrative examples are provided below:

Alif Ailaan:

Between 2015 and 2018, the national *Alif Ailaan* campaign[5] worked directly with political leadership to seek cross-party commitment and pledges for education ahead of the 2018 general election—the *Ailaan-e-Amal*. Working directly with political parties was a deliberate programme choice which required specific advocacy campaigns to deliver the pledges: more schools and removing distance and cost barriers; more and better-trained teachers; providing children with more and better-quality learning resources; and monitoring of schools by management authorities. In KP, sustained political engagement resulted in reforms to improve the quality of teaching workforce through higher qualification requirements as well as widening the pool[6] of candidates eligible to apply for teaching positions, recruitment testing[7], and structured induction[8] training.

Sustainable Transition and Retention in Delivering Education (STRIDE):

Another example is the STRIDE[9] second-shift schooling programme, which provided access to out-of-school children by using classrooms after the end of the normal school day. Initially funded as a pilot under the Ilm Ideas 2 programme, STRIDE was scaled up in KP—and with funding through PESP—in Punjab, providing access to around 250,000 students, reducing the number of dropouts, and helping the system improve completion rates. It ensured that the respective political leadership in each province could claim credit and accrue political capital by being able to claim STRIDE as their own.

---

[5] This campaign was part of the Transforming Education in Pakistan programme (TEP) funded by legacy DFID.

[6] This was achieved through an amendment in service rules which removed the requirement of professional qualification as a necessary condition for application. This resulted into considerable widening of applicant-base for the department for recruiting teachers.

[7] Testing achieved two distinct objectives, a) it earned political milage to the ruling party for introducing meritocracy and transparency in the recruitment process, b) it served as an additional filter by shortlisting candidates with relatively better content knowledge. To design, develop, conduct and mark the test an independent testing agency was engaged through a competitive process.

[8] It was a unique programme which was delivered using blended learning mode. So far, more than 25000 teachers have improved their knowledge for teaching.

[9] Sustainable Transition and Retention in Delivering Education

In this case, the implementing agency, I-SAPS, was able to secure government ownership from the start in the form for teacher salaries and provision of school buildings, mainly by using evidence on cost savings and potential positive impact of the second-shift model on enrolment. Punjab has scaled up this model to 7008 schools with government's own funding.

Public-private partnerships:

The private sector has played a substantial role in expanding access to education in Pakistan (see lesson 6); 35% of primary and more than 30% of secondary schools are private. These institutions provide education to 47% of school children. Through vouchers and other schemes of the Punjab Education Foundation (PEF), the Government of Punjab has partnered with low-cost private schools to increase access, and this role has been well-established and evidenced. Evidence exists on voucher effectiveness, for example, a RISE study[10] suggests that a $13 voucher for each student would increase private school enrolment for girls from 19% to 40% and for boys from 23% to 31%. However, in KP, political opposition from teachers' bodies, combined with internal disagreements within government on management and regulation, meant that progress was much slower on making voucher schemes work. Thus, a significant potential for reducing the number of out-of-school children was lost due to lack of political consensus.

Multigrade teaching in Punjab:

Multigrade classrooms are prevalent across Pakistan, resulting from a lack of teachers and suitable infrastructure. In Punjab, around 30,000 schools use multigrade teaching. But addressing this issue through developing an effective strategy to support teachers of multigrade classrooms struggled to gain political traction as it required significant resources for teacher recruitment and construction of new classrooms. While not yet fully resolved, significant progress was made through effective use of data, which suggested that in more than 70% of the schools in Punjab, multigrade teaching exists with varying level of severity. This evidence was used to develop a strong case to convince the political and bureaucratic leadership to solve the issue, and to persuade them to consent over developing a policy and a pilot initiative to address the problem in a limited number of schools in the first instance.

Terms and conditions for teachers in KP:

In 2016, the then KP Minister for Education and the Education Secretary proposed substantial changes to conditions of service to improve performance and accountability. A technically sound proposal which sought merit-based promotions within schools, was developed. This was challenged by teacher's bodies who wanted to protect teachers who would like to remain in the same school for whole career for personal reasons. In this situation, accepting the proposal amounted to disagreement with teacher unions and hence raised the political costs of pursuing these reforms, which were also hampered by internal challenges. GoKP's legal and finance departments had a dispute over the

[10] Carneiro, P., Das, J. and Reis, H. 2022. The Value of Private Schools: Evidence from Pakistan. RISE Working Paper Series. 22/091. https://doi.org/10.35489/BSG-RISE-WP_2022/091

draft legislation aimed at providing legislative cover to the new terms and conditions besides turn over of key officials within the department that championed the reform. Combined, these factors gradually reduced the political commitment to revision of teachers' terms and conditions until the debate completely disappeared when new political stakeholders assumed power following the 2018 general elections.

Textbook content:

This has long been a contentious issue. In 2012, violent street protests occurred in Punjab over the introduction of new textbooks based on the revised 2006 curriculum. For some religious circles, the textbooks had content that was incompatible with cultural and social norms while minorities had concerns about pluralism and inclusivity. The new textbooks were withdrawn and old ones re-issued. Therefore, gender stereotypes portraying women against the international norms of gender equality and discriminatory content against minorities in textbooks remained a challenge. The UK advocated for alignment of the textbooks in line with principles of non-discrimination, equality and inclusion.

Being aware of the need for expertise to review the textbooks from an inclusion angle, the UK provided support for institutional capacity of the Punjab Curriculum and Textbook Board and the KP Textbook Board to carry out reviews of textbooks themselves, including developing the systems and standards necessary to identify and remove discriminatory content. In KP, for example, the Technical Assistance (TA) team supported the textbook writers and the reviewers from the Textbook Board to improve the content, design, and illustration of 34 core textbooks in the subject areas of English, Mathematics, Science including Physics, Chemistry, and Biology (for Grades 9-12 only). At the same time, the TA team also built the capacity of additional 50 textbook writers and reviewers which is a lesson in the vital difference between capacity-*filling* and capacity-*building* (see lesson 2). Continued improvements on these lines are vital to align the textbooks with international standards as well as the Principles of Public Policy as set out in Pakistan's 1973 Constitution.

Curriculum reform:

Since 2018, the planning and delivery of a unified national curriculum (previously the 'Single National Curriculum', now rebranded as National Curriculum of Pakistan) has been politically contentious mainly for two reasons. First, from a constitutional and governance point of view, some people in the provincial governments asserted that the Federal Government should not be attempting to lead any such effort, as it contravened the 18th Constitutional Amendment, which had devolved education to provinces. Secondly, the revised content of the curriculum became a political issue with conflicting claims on it being too progressive or too conservative from religious, historical, cultural angles. The role and influence of madrassahs in this issue, with the expansion of potentially less pluralistic religious studies instruction into public and private schools as a quid pro quo for madrassahs being registered and adopting the SNC, added further sensitivity. Like textbooks, UK's role has been to build capacity and expertise for amplifying non-discrimination and inclusion perspectives into the curricula through efforts led by the government itself.

Lesson 2:

Identify obstacles and plan for long-term sustainability from the start, being alive to trade-offs arising from short-term capacity filling and a focus on just urgent needs.

Education systems strengthening requires long-haul and a holistic, clear-sighted view on what is needed to reform the system's governance architecture. As outlined in lesson 1, improvements can be made at the intersection of a sound technical design and political opportunity and engagement in the short term. However, for improvements to be sustained, successful reforms should be able to survive political transitions, the risk of loss of political engagement, and the removal of external funding and technical assistance. A sustainable reform is one whose impacts continue after these forms of support are no longer in place. Some examples of this tension between short-termism and a long-term strategic view of sustainable reforms are provided below.

Punjab Roadmap:

Between 2012 and 2018, the Punjab "Roadmap"—a delivery-focused initiative but largely contingent on support from the Chief Minister—achieved significant gains in enrolment, attendance, and learning. The Roadmap increased transparency, data quality and use to strengthen accountability for performance. However, it operated as an additional accountability mechanism, rather than as an effort to fundamentally reform the education system and linkages with inherent civil service issues such as high rates of staff rotation and turnover. Following the political transition of 2018 elections leading to the election of a new Chief Minister from another political party, political momentum was lost. As a result, proactive political management against targets diminished. Nevertheless, evidence from district and school surveys shows that an active process of data collection and review is taking place at subnational and school level, through the School Improvement Framework (SIF) (discussed below). This is an instructive illustration of this lesson: any genuine reform is what is left after the initial political interest, external funding, and technical input has finished; the system must work with the vestiges of that initial flurry of activity. Therefore, it is incumbent on those who provide support—like UK-funded technical assistance—to ensure that those vestiges are as good quality as possible.

Khyber Pakhtunkhwa Education Sector Programme (KESP):

KESP also illustrates the importance of building capacity and system reforms with a long-term view. KESP was slow to build momentum, in part due to procurement and delays in establishing in-situ functions of the Technical Assistance (TA) provider. However, once these were established and functioning, fundamental governance reforms in the central provincial bodies, especially the Elementary and Secondary Education Department (ESED), were necessary before school-level interventions could be implemented effectively on the ground. Only once these were in place could genuine progress be made in areas which would improve student access at the district and school levels, such as

teacher training and school leadership development. The TA team assisted ESED in setting up a District Delivery Unit to improve efficiency of the utilisation of budget. While the District Delivery Unit (DDU), with the help of its weekly routines, has made its mark by increasing the utilisation of budget from 77% in 2017 to 98 % in 2022, it has also been institutionalised where the ESED has set up the unit in Directorate of Elementary and Secondary Education (DE&SE), which is run by three full-time team members.

Contract teachers in Punjab:

The Government of Punjab hired teachers on fixed term contracts to enable stronger performance management. This allowed better teacher accountability using contract termination clause. Over time, however, those contract-teachers organised themselves and pressurised the government to employ them as regular staff, therefore removing the primary accountability mechanism, which had been the primary reason why the government had originally hired these teachers. By placing the employment of these teachers back into the pre-existing, un-reformed governance structures governing regular school teachers, the objective of improved performance through enhanced accountability was lost. This initiative had been superimposed over existing structures and processes, rather than embedding better performance management and accountability within the existing teacher management policies.

Short-term capacity filling:

It is important that support provided by technical assistance providers should build, rather than fill, government capacity. This can be difficult to do in an environment of high and frequent staff turnover, as experienced in education departments and various agencies in Punjab and KP. In KP, the lowest level of technical assistance was provided to districts and schools by District Field Coordinators (DFCs), but were also required by their roles to coordinate and fill capacity and staffing gaps in the district offices. This generated a sustainability and capacity problem when the programme ended, and local TA through the DFCs was withdrawn. In Punjab, a Financial Management Cell within the School Education Department (SED) was established to strengthen budget planning and execution. However, it could not be sustained without FCDO's technical support, in large part due to a lack of interest and will from SED's leadership.

Having learnt these lessons, future technical assistance should ensure any reform initiatives are designed with long-term sustainability considerations at the beginning. This should include, as much as possible, thinking to accommodate future political change by building capacity within the system and through stronger resilience within bureaucratic machinery to sustain the reform. The ever-present challenge of staff-turnover in government bodies should be planned for and mitigated. And as few project-funded parallel structures as possible should be established to minimise the sustainability risks when such scaffolding is inevitably removed.

Lesson 3:

Budget increases are necessary but not a sufficient condition for results; greater efficiency and accountability of expenditure is vital too.

Both PESP and KESP incentivised increases in provincial education budgets along with a focus on output, efficiency, and accountability successfully. Punjab increased its education budget by 40% in real terms between 2012 and 2021. KP increased the share of its annual budget on education from 13.5% in 2014 to 16.6% in 2021.[11] However, what that budget is spent on and how this is managed is equally if not more important than the total volume. A number of initiatives combined to generate much stronger effectiveness and efficiency of education spending overall: increases in non-salary budget, including greater allocation of non-salary funds to schools to meet their own needs; development of needs- and output-based budgets, including at district level to respond to local contexts; increased execution of recurrent and development budgets (now regularly at or above 98%); and stronger auditing and financial controls.

Financial Management Cell in Punjab:

In 2017, a Financial Management Cell (FMC) was established within SED to improve budget planning and execution in Punjab. The FMC was established with support from FCDO, but could not be sustained without this support. The government has allocated budgets to recruit staff for FMC, however, the recruitment could not go ahead due lack of interest by SED's leadership. There is a need to operationalise the FMC through engagement with the Minister and SED leadership with strong emphasis on sustainability and capacity. SED's own commitment for continuous Public Financial Management (PFM) is essential for maximising outputs from education expenditure.

Internal Audit Cell in KP:

An Internal Audit Cell (IAC) was established within the Elementary and Secondary Education Department (ESED). The IAC was initially led by KESP TA for the first three years and comprised an Internal Audit expert supported by two auditors and a PFM specialist. Responsibility for the IAC was transitioned to the GoKP in December 2018 by creating permanent posts in the IAC. The government-led IAC is now housed in ESED. Also, in KP, the success of district education plans and accompanying budgets should be capitalised on by extending similar processes to schools through the development of school-based budgeting.

[11] Overall spend on education as a proportion of Gross Domestic Product (GDP) has declined over the last six years, from 2.02% in 2015-16 to 1.77% in 2020-21, with a high of 2.12% in the election year (2017-18). Considering the amount of cross-party political support for a target of 4% of GDP committed during the run up to the 2018 general election, in large part fostered by the Alif Ailaan campaign, this decrease in education spend as a proportion of GDP appears disappointing.

Lesson 4:

Monitoring matters—but we must also measure what we value, not just value what we measure.

Over the last decade, Pakistan's education sector has become a data-rich environment, particularly in Punjab and KP. Among the most important system-strengthening successes of PESP and KESP have been the development of independent, robust, and sustained education system monitoring apparatus and routines. In turn, these have helped inculcate a much stronger culture of accountability and performance management. But improvements can still be made, in the collection and sharing and—more importantly—the analysis and use of data. This learning from KESP and PESP is the rationale underpinning our Data and Research in Education (DARE) programme.

Programme Monitoring and Implementation Unit (PMIU) in Punjab:

In Punjab, the regularity and transparency of data have improved, enabling more frequent and rigorous data use to drive improvement. Strengthening the PMIU data function through regular school visits by the Monitoring and Evaluation Assistants (MEAs), and the establishment of the School Improvement Framework (SIF) and School Status Index (SSI) have been important successes. PMIU/MEA data collection and use helped to improve teacher attendance in Punjab from 85% in 2011 to 91% in 2022, which is equivalent to over 20,000 more teachers attending each day.

SIF data is used by district managers to assess school performance and address challenges. SIF was designed and implemented in six districts in Punjab in 2020 with support from PESP II TA and scaled up to 36 districts in 2021, making it a province-wide reform. Following the closure of the Education Roadmap routines, SIF has proven its utility as a structured evidence-based accountability tool to drive performance at both district and provincial levels. A key difference between SIF and the Roadmap is the high stakes nature of the Roadmap due to the involvement of the Chief Minister. SIF, as a nimbler, lower-stakes tool, utilises the data routines set up by the Roadmap process but enables officials on the ground to understand and utilise it to monitor and improve performance. Further, with the foundation of effective mechanisms in place, data on other areas of interest and importance can be added: for example, disability indicators were added to the PMIU dataset to monitor progress against Punjab's new inclusive and special education policies.

Independent Monitoring Unit (IMU) in KP:

There were similar successes in KP, with the establishment of IMU under KESP, which was later institutionalised as the Education Monitoring Authority (EMA). Regular and reliable EMA data has provided the foundation for other interventions. In 2015, EMA data provided the basis for the development of District Education Plans, which enable evidence-based planning at the district level. The Online Action Management System (OAMS) uses the EMA data to facilitate disciplinary measures against

teachers who remain absent without authorisation. In 2016, 4.5% of teachers in KP's settled districts were absent from school without prior notification or approval, a figure that has now decreased to under 1% with the implementation of the OAMS. EMA data has also been crucial for the monitoring of new interventions, for example, demonstrating a 13-percentage point improvement in enrolment of girls in receipt of stipends in kindergarten and grade one classes, compared to girls who did not receive stipends.

Despite these improvements, many challenges with the education data ecosystem remain unaddressed. Data-sharing protocols, particularly between departments, and between provinces and the federal government, are weak; statistical analysis and reports have a significant time lag[12] ; and monitoring mechanisms have tended to focus on more easily quantifiable input indicators at the system level, rather than on process indicators at school level, or robust measures of learning. It is what happens in the classroom—the teaching and learning process—that counts most, but this can be difficult to monitor effectively.

Focus must shift towards more use of data to inform teaching and learning processes. Improving the supply and quality of teachers, learning spaces, and learning resources are indisputably essential to improving the education system, but these inputs must combine to deliver more children in school, learning more. Simply providing—and then monitoring—extra teachers, teacher training, and learning resources as *inputs* will not itself necessarily result in more, better- educated children. We must continue to move beyond a focus on inputs and proxy measures for education system performance, to have a laser-focus on learning outcomes and the processes required to generate them. In Punjab, huge data on student performance is collected through large-scale assessments, but this is neither used to inform teacher training initiatives, nor improve the quality of textbooks. The DARE programme is working to address this issue.

[12] For example, the latest available national education statistics are from 2017-18.

EXPANDING ACCESS TO EDUCATION

Lesson 5:

To go 'the last mile' on equitable access will cost more per new student enrolled than it has cost previously. This should be budgeted and planned for accordingly.

Huge gains in enrolment have been made over the last decade, with over 10 million more children benefitting from basic education. This represents an increase of two and four percentage points in primary and primary net enrolment, respectively, in years between 2010-11 and when COVID struck. World Bank estimates suggest that over 900,000 children may have been forced to drop-out due to COVID school closures in Pakistan.[13] Approximately 20 million children in Pakistan are still not in schools. The COVID pandemic has exacerbated this problem: KESP programme estimated that 25% children were out of school in KP post-COVID, up from a pre-COVID level of 17%.

Enrolling the remaining out-of-school children and COVID-related dropouts will be more expensive. As part of its value-for-money analysis, the KESP programme calculated the cost per percentage point of improvement in the net enrolment rate for primary and secondary levels. Over the course of the programme, the cost-per-percentage point improvement increased by 50% for primary and 54% for secondary between 2014 to 2022. This illustrates an intuitive point: that it gets progressively more expensive to reach those children who are in the most disadvantaged, marginalised, and intractable circumstances, who consequently are the most difficult to get into schools such as those living in extreme poverty and remote locations, children with disabilities, girls, children from religious minorities, etc. Projections suggest these cost increases will continue up to 52% and 80% for each additional percentage point of Net Enrolment Rate (NER) for primary and secondary levels, respectively.

Reducing the financial barriers to schooling of children from marginalised groups through provision of scholarships, costs of transport, stipends, and cash transfers holds promise for improving access. Nevertheless, such initiatives must be well targeted and can be prohibitively expensive. In KP, through KESP, one stipend scheme was found to be largely ineffective due to poor targeting, while another was much more successful but ultimately financially unsustainable. The lesson here is that for the most marginalised students, those in 'the last mile', financial barriers are often the primary obstacle blocking their attendance at school and are higher than for those children previously out-of-school for whom financial assistance has already helped. Correspondingly, therefore, financial support must be sufficient to overcome that barrier. The reality of budget constraints means that any financial assistance programmes must be highly- and well-targeted, to ensure efficiency, effectiveness and sustainability. This may well require Pakistan's education authorities to make some tough decisions on who will and who will not be eligible for such support.

[13] World Bank, Learning Losses in Pakistan due to COVID-19 School Closures: A Technical Note on Simulation Results, 2020.

Lesson 6:

Opportunity lies in supporting government to work with non-state providers to improve access, but maintaining and managing quality continues to be a challenge.

Non-state provision of schooling is a major element of Pakistan's education system. Nearly half of students (47%) in basic education (pre-primary through upper secondary) are in some form of non-state or private school (including madrassahs)[14]. While the pressures of COVID-enforced school closures placed strain on the private school sector, leading to some permanent closures, private and non-state provision is and will continue to be a substantial and significant element of schools' landscape in Pakistan. Availability of private schools often reduces the distances children have to travel to school, which is a factor highly valued by parents— particularly for girls.[15] Private and non-state actors can provide significant advantages in terms of reaching marginalised children. For example, through the Sindh Education Non-State Actors (SENSA) programme, nearly 50,000 previously out-of-school children were supported to complete a full course of primary education, through the establishment of one-classroom schools in marginalised rural or slum communities, which otherwise had little or no affordable provision; or through receiving scholarships to attend their nearest The Citizen's Foundation (TCF) school in Sindh.

A key policy issue is how best to harness private schools to the objective of universal, quality education provision. Through public-private partnerships (PPPs), Punjab has led Pakistan—and much of the world—to expand access to around 2.7 million children. Low-cost private schools supported by the Punjab Education Foundation (PEF) have increased enrolment by 92% from 2013-22. However, as outlined in lesson 1, PPPs can be politically contentious, and this policy idea has not gained as much traction in KP. Issues relating to the regulation and management of PPP schools have so far proven stumbling blocks. While this may hamper efforts to capitalise on low-cost private schools to improve access and enrolment, from a quality perspective, these issues need full and proper consideration.

Ensuring a minimum standard of quality in low-cost private schools is a key challenge. While per-student cost through public schools is around Rs.2579[16], this comes down to around 1/3rd through PPPs with low-cost private schools. But this does not always produce desirable learning levels, particularly in standalone private schools that are not part of a network such TCF, Beaconhouse, or its franchise model 'The Educators', or the City School System. Network models such as these provide some economies of scale, better assurances on quality, and opportunities for lower-transaction cost partnerships with the government. But despite the benefits and opportunities they present, and despite the scale of some of them[17], they are still relatively small stakeholders in the context of the sheer scale of Pakistan. Therefore, governments must work with the whole spectrum of low-cost and non-state schools and should frame policies and implementation modalities so that collaboration ensures minimum standards of quality while also helping to achieve increased enrolment.

[14] Pakistan Education Statistics, 2017-18.
[15] Carneiro, P., Das, J. and Reis, H. 2022. The Value of Private Schools: Evidence from Pakistan. RISE Working Paper Series. 22/091. https://doi.org/10.35489/BSG-RISE-WP_2022/091
[16] This estimate is for Punjab. The difference in per student cost is due to different cost drivers e.g. low salaries of teachers and high out-of-pocket expenses by parents in private schools.
[17] For example, TCF runs over 1800 schools across Pakistan.

IMPROVING LEARNING OUTCOMES

Lesson 7:

Continuous improvement in learning outcomes requires more than just more inputs into the system. A thorough understanding and application of pedagogy in everyday classes is vital.

Overall, learning levels have improved in Pakistan over the last decade but not for all. Between 2012 and 2019 in Punjab, the percentage of children achieving grade-level expectations in Urdu, Maths, and English improved from 50-84%, 57-85% and 58-78%, respectively.[18] Similarly, Grade 5 student learning improved by 21 percentage points in Maths and 17 percentage points in English and Science between 2018 and 2020 prior to COVID. These overall learning gains are built upon better quality inputs to the system, with the quantity and quality of teachers in particular having increased. Children in some social groups remain more disadvantaged due to a persistent gender gap, variation in performance improvements by age-grade and location, and the detrimental effects of COVID. The World Bank estimates that children could lose nearly a full year's worth of learning due to COVID-related school closures.[19]

Teachers must know how to deploy their training to deliver tangible pedagogical behaviour change in the classrooms on a daily basis. This is important for continued improvements to learning outcomes and for all children to reach grade-related expectations. In KP, over 28,000 new teachers, recruited through a more rigorous selection procedure with higher entry requirements, completed the new Teacher Induction Programme. On average, teachers in KP had better subject knowledge and pedagogical competence as a result of KESP support: average Science subject knowledge test scores more than doubled between 2016 and 2021, from 31% to 66%, while the percentage of teachers meeting the minimum pedagogical competence increased from just 25% in 2016 to 75% in 2021. Teachers also turned up more, with average attendance improving from 83% in 2015 to 92% in 2021. This will be particularly important to help children catch-up, following the learning losses caused by extended COVID-enforced disruptions.

It is important that teaching is done at the level of the students' understanding, increased time-on-task, effective questioning techniques, and personalised feedback, amongst other important pedagogical practices. Programmes such as Teach for Pakistan, supported by the FCDO, hold the potential to demonstrate the value of truly effective and inspirational teachers in Pakistan's classrooms. Its small size, however, mitigates against it having a system-wide transformative effect in the short term. Therefore, Pakistan's governments and education authorities should look to work with organisations with well-established and effective teacher training programmes, like Teach for Pakistan and The Citizen's Foundation, to extract lessons for how government teacher training provision

[18] During COVID pandemic, however, these levels dropped by approximately 20 percentage points in every subject by 2022.

[19] World Bank, Learning Losses in Pakistan due to COVID-19 School Closures: A Technical Note on Simulation Results, 2020.

can be improved. The challenge will be to balance the rigour applied by these organisations with the resource envelopes available in the government sector.

Lesson 8:

To deliver lesson 7, school leaders have a pivotal role. Clearer responsibilities and expectations of training and development for, and pathways to, school leadership are required.

To ensure better pedagogy is applied every day in every classroom in every school, the role of school leaders is crucial. This lesson was acknowledged and addressed latterly in PESP and KESP, respectively, through the School Improvement Framework (SIF) and the School Quality Management Initiative (SQMI), which evolved into the School Leadership Programme (SLP). These programmes use lesson observations to understand the quality of instruction delivered in schools, and then support school leaders to help teachers improve their practice. This pivot to monitoring the process of teaching and learning—not just its inputs—and placing school leaders in a key role to improve instruction, was an important step forward in the programmes. This development must continue.

School leaders should be supported to become instructional leaders and not just administrators. School leaders should be supported to understand the levels and patterns of learning in their school so they can then identify a particular child, class, or teacher in need of additional support, which they have the knowledge and skills to provide. For example, instructional school leaders in KP may have been able to identify and address the persistent gender gaps in learning levels, or the lower levels of learning progress made in the younger grades, which were evident by the closure of KESP. In Punjab, for example, there are opportunities to trial new approaches, such as creating headteacher posts in primary schools or using a system whereby secondary school principals have the responsibility to provide instructional leadership for a cluster of primary and elementary schools. A wider opportunity lies in strengthening the career progression framework for teachers and school leaders, with performance assessed against and improved through robust teacher competency frameworks, which in turn becomes the basis for promotion into leadership posts.

Lesson 9:

Assessments and examinations are vital to measure learning and create a feedback loop. Pakistan's patchwork of assessments and assessment bodies, however, makes it hard to understand learning data and make meaningful comparisons between locations and groups.

Notwithstanding many benefits, the devolution of education has exacerbated inter-provincial inconsistencies in assessment systems. After devolution in 2010, provinces developed their own approaches to assessment and examinations, though with little coherence at the national level nor with any

clarity on what assessment data would be used for.[20] Provincial Education Assessment Centres (PEACs) conduct assessments to give a provincial snapshot, but relationships with the national assessment body (formerly the National Education Assessment System, now part of the Pakistan Institute for Education—PIE) have been based more on cooperation through personal relationships and monetary support for conducting tests in the provinces, rather than a strategic and mandated national approach to assessment.[21] In lieu of quality and comparable learning data generated through robust assessment, both KESP and PESP relied upon learning data generated through project-specific assessment exercises. In addition to this, FCDO has consistently funded the Annual Status of Education Report (ASER) which, despite some challenges created by changing sampling techniques and geographic focus, has been the most reliable source of time-series learning data.

There is also a dearth of technical and analytical skillsets at various levels. The list of skills in shortage is long: a lack of specialised, technical psychometric skills (item writing, sampling, test procedures) and core analytical expertise (report writing, comparative analysis); weak dissemination of results and analysis to primary stakeholders (particularly teacher trainers, textbook developers, and policy-makers); a lack of deep understanding of the assessment process and linkages between assessment systems and other education sub-departments (such as teacher professional development centres, examination units, curriculum wing, and textbook development); and a lack of integration or clear delineation of responsibilities between the federal and regional assessment centres, preventing cross-learning and implementation of best practice. [22]

These challenges have meant that "external summative assessments have not historically led to meaningful reform".[23] While learning assessment data exists, the results do not inform technical improvements, such as the revision of teacher professional development and training plans or textbook development. This is compounded by departments working in data silos, without data access protocols or data routines that would enable analysis and use of data. This has led to the recommendation from the Federal Sustainable Development Goals (SDGs) Support Unit that *"MoFEPT[24] should coordinate the development and implementation of joined up assessment strategies in which country-wide assessments are complemented by provincial/ area assessments, with channels to enable these to meaningfully influence education decision-making."* [25]

[20] 'Assessment systems in Pakistan: Considerations of quality, effectiveness and use', The Society for the Advancement of Education (SAHE), 2016.
[21] 'Pakistan's Education Data landscape', DFID-commissioned HEART paper, OPM, October 2019.
[22] 'Assessment in Schools in Pakistan', Khattak, 2012.
[23] Sustainable Development Goal 4 Gap Analysis, 2017
[24] Ministry of Federal Education and Professional Training
[25] Sustainable Development Goal 4 Gap Analysis, 2017.

Lesson 10:

Education technology (ed-tech) holds huge promise. However, market dynamics and risks of market failure may prevent it from becoming a truly effective tool to address education equity. But its greatest potential may not lie in educating children directly at all.

Pakistan has a nascent but fast-growing and exciting ed-tech industry. The UK helped foster this through various grants to ed-tech companies through the Ilm Ideas 2 programme until early 2019. School closures caused by COVID catalysed interest and activity in ed-tech, as solutions for teaching students remotely were sought. The potential for supporting student-centred, self-guided, and remote learning is hugely attractive. However, in many contexts of Pakistan, the practical challenges of funding, powering, maintaining, and updating the hardware and software required are all too often limiting factors to the success of ed-tech to support student learning. As the Ed Tech Hub has observed, there is an optimism bias *"when viewing the potential for technology to act as a panacea to an underlying problem. Moreover, (the few available) studies explore the equity implications around the uptake of technology and the corresponding infrastructural and financing challenges related to scaling up EdTech."*[26]

These practical challenges are compounded by market-based challenges inherent in working with the private sector ed-tech industry. A key learning from the Ilm Ideas programme was that the amount of investment required to innovate and develop an ed-tech solution (product or service) ultimately made that solution prohibitively expensive as a mechanism to serve our core group of beneficiaries i.e., the most marginalised children. Government investment and financial support could help alleviate some of these market pressures, and in turn, prevent and overcome an emerging 'digital divide' between richer and poorer students. However, this necessarily places a higher premium on prudent investment and procurement choices in the first instance, but these cannot yet be supported through evidence due to the dearth of robust research on ed-tech in Pakistan.[27] Therefore, Pakistan's education authorities interested in exploring ed-tech solutions should begin by investing in academically rigorous trials to build the evidence base and identify the best possible ed-tech solutions for their contexts and resource envelopes.

Use of ed-tech for delivery of teacher training holds huge potential. COVID-enforced disruptions highlighted the potential to use technology to train teachers remotely. Punjab partnered with Microsoft to deliver remote virtual training on the new national curriculum to 50,000 teachers. The Teacher Induction Programme (TIP) established under KESP utilised video-content on tablets to enhance training for over 28,000 teachers. Through the SENSA programme, the necessity of training teachers remotely brought unexpected benefits. Use of digital channels to deliver teacher training led to increased participation and engagement in training sessions, as the majority of female trainees were

[26] Zubairi, A., Halim, W., Kaye, T., and Wilson, S. (2021). Country-Level Research Review: EdTech in Pakistan [Working Paper].
[27] Ibid

able to attend sessions from their own homes, whereas some cultural sensitivities and barriers had previously prevented them from attending in-person training events. Use of digital channels provided a safe space for trainees to ask more questions, a dynamic sometimes quelled by the formality of in-person training; while digital channels allowed trainers to monitor trainee engagement in a data-driven way, identifying who needed more support and on what specific topics. While follow-up support was still needed to ensure training turned into improved practice in classrooms, an increased level of engagement in training in the first instance was a positive development that is worth factoring into the design of future programmes.

CONCLUSION

These lessons provide instructive challenge and considerations for future UK education programming in Pakistan, as well as for government and other sector stakeholders. The objective must be to improve students' access to and experience of education, by delivering technically sound but politically-smart reforms, which consider longer-term political will and governance requirements to ensure sustainability.

Sustainable impacts in governance, access, and learning will be achieved by setting priorities which are both technically sound but politically agreeable as well. This requires placing emphasis, not solely on what is needed most urgently or on a solution which has the best evidence, but also that which could be agreeable politically, and where possible, using evidence to persuade an agreement. Long-term vision and sustainability of reforms have to be at the centre stage of planning and execution of reforms. We must acknowledge the time it can take for reforms to take root and deliver, while expediting, where possible, by planning for known bottlenecks.

Systems reforms and improvements, however, are only as good as the influence they have on delivering the ultimate objective: more children in school, learning more. Effective monitoring systems can encourage this by focusing on the right things. This must include the teaching and learning process and accurate assessment of learning, in addition to the input metrics which have dominated up to now.

There is still much work to be done to achieve equitable, universal access, which will only become more expensive to deliver. Covering the 'last mile'—to bring children from marginalised backgrounds such as girls, those with disabilities, from religious minorities, or those living in poverty and remote locations into education—will require political will for greater and sustained investments in tackling financial and social barriers.

Teacher training is not sufficient in its own right; it is the use of pedagogical practices on daily basis in classrooms that will transform learning. Despite some improvements in learning up to now, future gains will require a much sharper focus on the art and science of teaching and instructional practice, and the role of school leaders will be crucial in this.